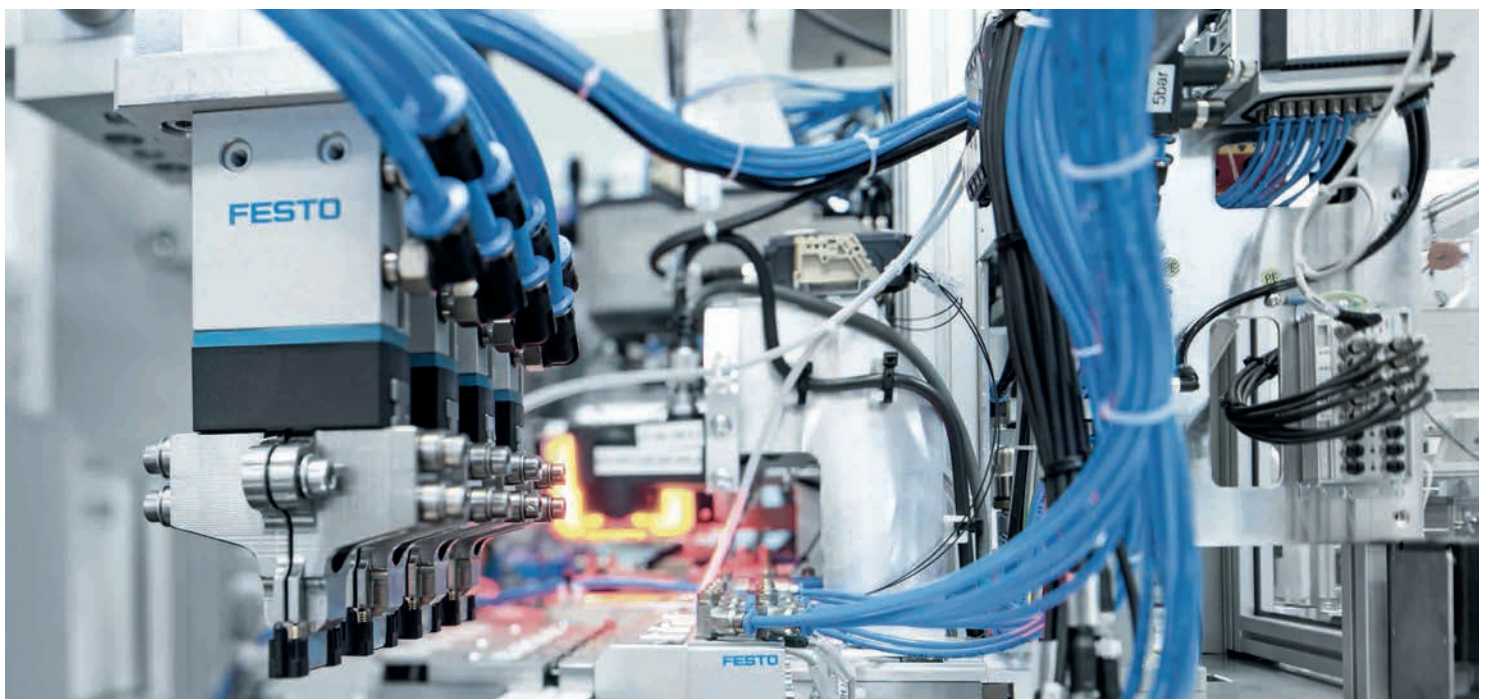


FESTO

Selected products

Your partner for factory and process automation



Selected products
Your partner for factory and process
automation
Second edition

Issue 2014/09

All technical data are correct at the time
of going to print.

All texts, representations, illustrations
and drawings included in this catalogue
are the intellectual property of Festo
AG & Co. KG and are protected by copy-
right law. All rights reserved, including
translation rights. No part of this publica-
tion may be reproduced or transmitted in
any form or by any means, electronic,
mechanical, photocopying or otherwise,
without the prior written permission of
Festo AG & Co. KG.

All technical data are subject to change
according to technical updates.

Festo AG & Co. KG
Postfach
73726 Esslingen
Ruiter Strasse 82
73734 Esslingen
Germany



Selected products

Your partner for factory and process automation

Table of contents

FESTO

1 Pneumatic drives

9

Standard cylinders DSNU, to ISO 6432



14

Standard cylinders DSBC, to ISO 15552



16

Standard cylinders DSBG, ISO 15552



19

Compact cylinders ADN, to ISO 21287



21

Compact cylinders ADNGF, standard port pattern



24

Short-stroke cylinders ADVC



26

Linear drives DGC



29

Twin-piston semi-rotary drives DRRD



32

Swivel modules DSM-B



34

Mini slides DGSL



36

Guided drives DFM



38

Guided drives DFM-B



40

Rotary indexing tables DHTG



42

2 Accessories for pneumatic drives

45

Piston rod attachments



46

Guide units FEN/FENG,
for standard cylinders


47

Non-return valves VBNF and HGL



49

One-way flow control valves VFOF and GRLA/GLRZ



52

3 Electromechanical drives

53

Electric cylinders DNCE, with spindle drive



55

Electric cylinders EPCO, with spindle drive



59

Toothed belt axes EGC-TB-KF,
with recirculating ball bearing guide


62

Spindle axes EGC-BS-KF,
with recirculating ball bearing guide


65

Toothed belt axes ELGR



68

4 Motors and controllers

71

Overview



72

5 Grippers

75

Overview



76

6 Vacuum technology

77

Vacuum generators OVEM



79

Vacuum generators VN



81

Suction grippers ESG



83

Suction cup holders ESH



84

Suction cups with connection attachments ESS



84

Suction cups VAS,
bellows suction cups VASB


86

7 Valves

89

Solenoid valves VSVA, ISO 1547-1



91

Solenoid valves MFH, ISO 5599-1



94

Solenoid valves VUVG



97

Solenoid valves VUVS



101

Proportional pressure regulators VPPM



104

Proportional pressure regulators VPPE



106

8 Valve terminals

109

Overview



110

9 Sensors

111

Proximity sensors SME-/SMT-8M, for T-slot



113

Proximity sensors SME-/SMT-10M, for C-slot



115

Position transmitters SDAT-MHS, for T-slot



117

Position transmitters SMAT-8M, for T-slot



118

Pressure sensors SDE5



119

Pressure sensors SPAB, with display



121

Pressure switches PEV



123

10 Compressed air preparation

125

Service units, MS series



129

Individual units, MS series



131

D series service units, polymer design



140

11 Pneumatic connection technology

143

Plastic tubing PUN/PEN,
standard O.D.

146

Push-in fittings QS



149

Push-in bulkhead connector QSSK



164

Push-in fittings NPQM



165

Threaded fittings NPFC



169

Multiple distributors QSLV



173

Silencers AMTE, U/UC/UO



175

12 Electrical connection technology

177

Overview



178

13 Process automation

179

Quarter turn actuator Sypar DAPS



182

Positioner CMSX



184

Solenoid valves VSNC



186

Solenoid valve VZWM-L



188

Angle seat valve VZXF



189

Ball valve actuator unit VZBA



191

Ball valve drive unit VZPR



193

A black and white photograph of a middle-aged man with short, light-colored hair, wearing a dark suit, white shirt, and striped tie. He is sitting at a desk, looking directly at the camera with a slight smile. In the foreground, on the desk, is a Festo pneumatic cylinder. To the right of the cylinder is a laptop and some papers. The background is a blurred office setting.

We are pneumatic.
We are electric.
We are 30,000 technology-neutral solutions.

**→ WE ARE THE ENGINEERS
OF PRODUCTIVITY.**

Dear customer,

Now more than ever, companies seeking to be successful in the market need to systematically increase their competitive edge. To help you achieve this, this catalogue with its pertinent information and clear structure will show you the fastest route to the products you require.

All these aspects are building blocks for the common, overarching goal that binds us: boosting your productivity.

This catalogue will provide you with the answers to how this can be achieved.

For example with

- the first self-adjusting, pneumatic end-position cushioning PPS for cylinders. Or the valves with high flow rate VUVG. First-class technology that makes your work easier. And at a good price too.
- the electric cylinder EPCO. Pioneering for electric automation because it is so easy to parameterise.
- media valves in a wide range of variants for process automation. Completely and optimally suited even for those applications where fluids have to be controlled in factory automation, for example for cooling, lubricating, cleaning, washing, sterilising or dosing.

These are all solutions which will make your work easier.

Just have a look at the catalogue – and get a sense of what motivates us to make you more successful. We take advantage of everything possible to make this happen – our knowledge, our capabilities, our performance, our products, services and training offerings. Our solutions and products for automation are characterised by security, efficiency, simplicity and competency.

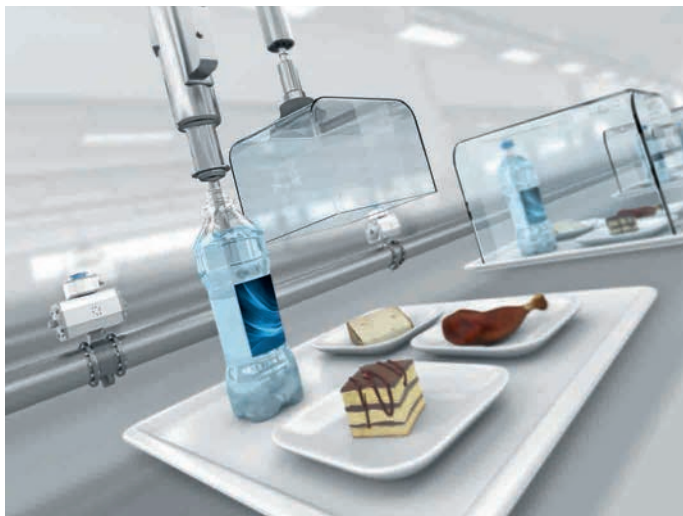
And we promise we won't let up. You should be able to sense our resolve – because that is what makes us engineers of productivity.

We're there for you – making you feel secure.



Dr Ansgar Kriwet
Member of the Management Board, Sales

Food and packaging industry



- From continuous processes and food and splash zones to end line packaging
- Expertise in food safety
- Joint engineering projects
- Creating synergies – everything from a single source
- Clean Design products: corrosion-resistant and easy-to-clean

→ www.festo.com/food

End line packaging



- For maximum productivity for secondary and tertiary packaging: from labelling, erecting cartons, loading boxes and shrink wrapping to palletising
- Our technology mix for you: electrical, pneumatic, servopneumatic
- Components, individual solutions and services for your tasks

→ www.festo.com/packaging

Automotive industry and Tier 1 suppliers



- Along the entire production process
- Understanding the processes – from the press shop through to engine and gearbox production and Tier 1 suppliers
- Developing solutions – joint engineering projects
- Creating synergies – everything from a single source

→ www.festo.com/automotive

Small parts assembly and electronics



- Know-how along the entire process chain
- From wafer production at the front end to finished chips at the back end
- For quality inspection and assembly of the finished products
- In small parts assembly, electronic or non-electronic

→ www.festo.com/ela

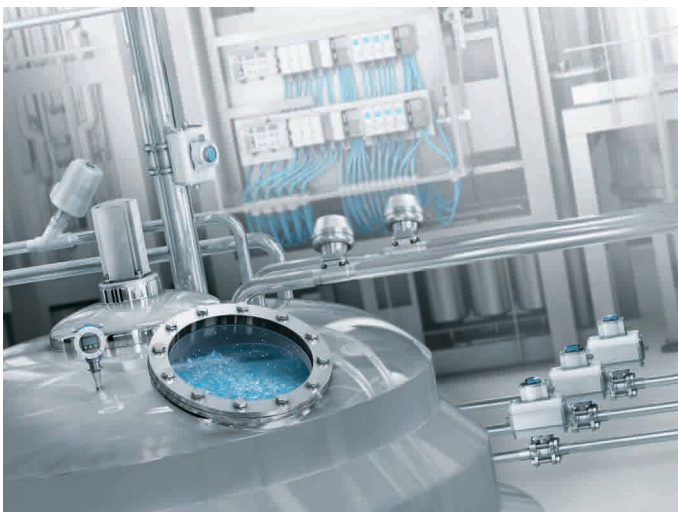
Water treatment



- Integrated automation solutions for the key processes: water treatment and wastewater treatment
- Customer-oriented consulting and engineering
- Supply of components and pre-assembled systems
- Compressed air quality analyses
- Energy saving services

→ www.festo.com/water

Biotech, pharma and cosmetics industry



- Integrated automation solutions for the key processes: production of ingredients, manufacturing of pharmaceuticals, cosmetics and personal care products, filling and packaging
- Customer-oriented consulting and engineering
- Supply of components and pre-assembled systems
- Compressed air quality analyses
- Energy saving services

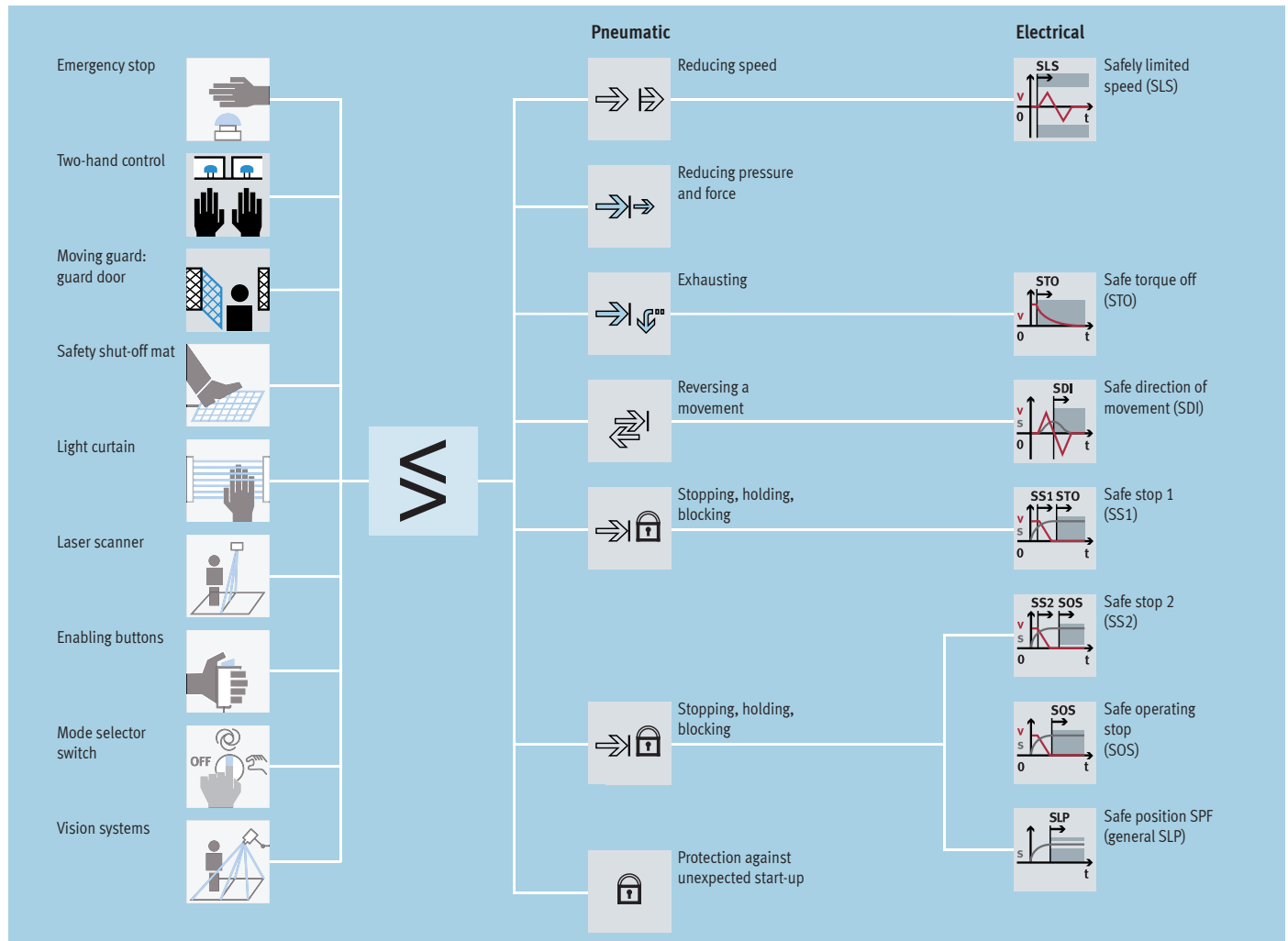
→ www.festo.com/biotech

Reduce risk – think preventively: Safety@Festo

Machines have to be designed in a way that protects people, animals, property and the environment from harm. The objective is to prevent physical damage of any type. Using safety-oriented pneumatics from Festo gives you the certainty of implementing safety measures in compliance with the EC Machinery Directive.

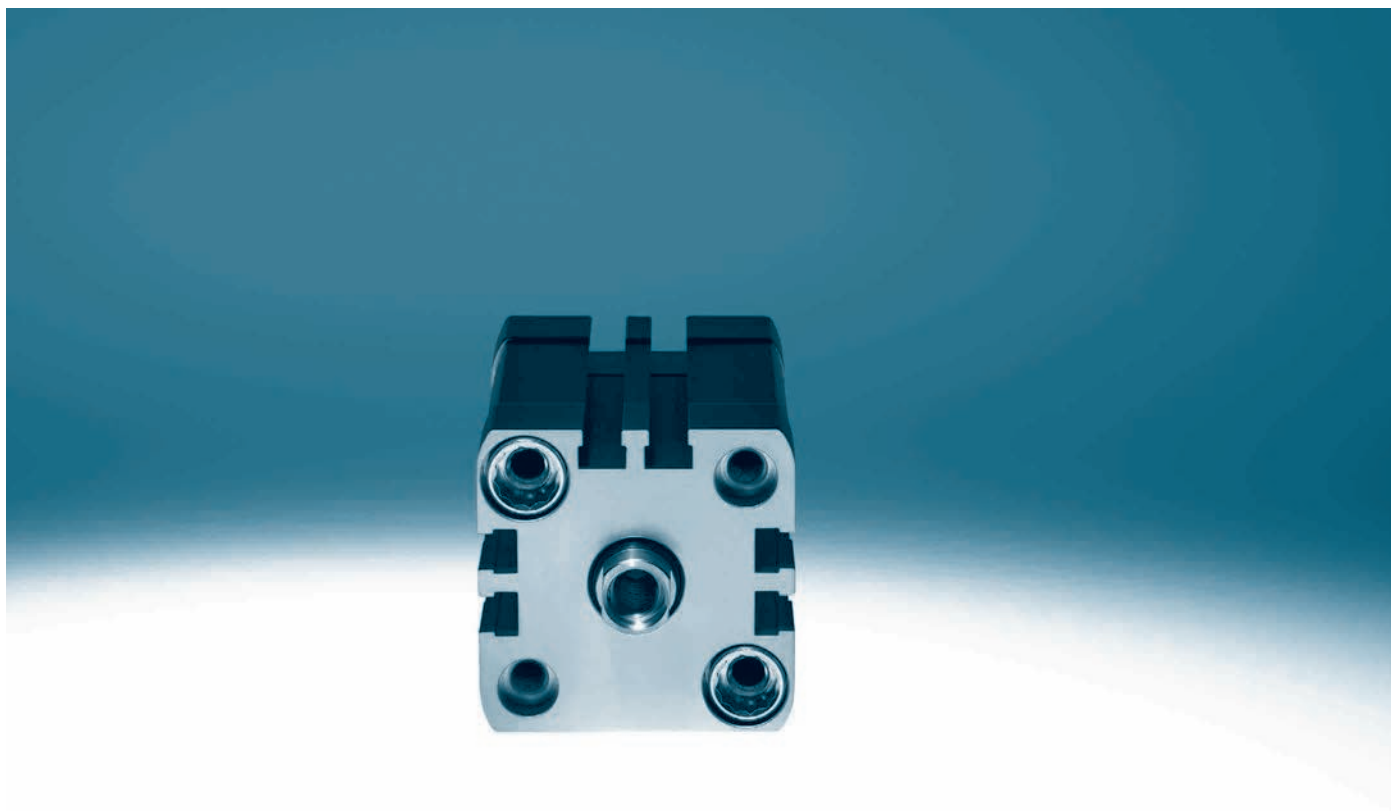
Festo offers many safety solutions for the entire control chain in the area of electrics and pneumatics, for input, logic and output.

These can be individual products, customer-specific solutions, proposals for safety-related circuit diagrams or training courses as required. Festo Didactic offers training and consulting services on standards and directives as well as risk assessments and assessments of technical safety measures.



Simply ask your local contact person or find out more at

→ www.festo.com/safety



1

Standards-based cylinders

Standard cylinders DSNU

- ISO 6432
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- Wide range of variants
- Reacts quickly thanks to minimal break-away force
- Good running performance and long service life

→ 14



Standard cylinders DSBC

- ISO 15552 (ISO 6431 and VDMA 24562)
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- Wide range of variants

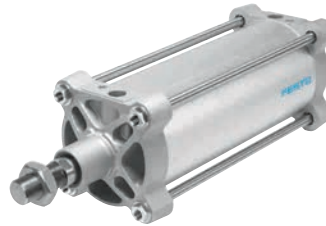
→ 16



Standard cylinders DSBG

- ISO 15552
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- Sturdy tie rod design
- Extensive range of accessories makes it possible to install the cylinder virtually anywhere
- Excellent flexibility thanks to wide range of variants

→ 19



Standard cylinders DSBF-C, Clean Design

- ISO 15552 (ISO 6431 and VDMA 24562)
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- Ideal for the food and packaging industry
- Increased corrosion protection
- Easy-to-clean design
- FDA-approved lubrication and sealing on the basic design
- Optional: unlubricated seal with self-adjusting cushioning PPS

→ dsbf-c



Stainless steel cylinders

Standard cylinders CRDSNU

- ISO 6432
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- Ideal for the food and packaging industry
- Corrosion-resistant in harsh environmental conditions
- Easy-to-clean design
- FDA-approved lubrication and sealing on the basic design

→ crdsnu



Short-stroke cylinders and compact cylinders

Compact cylinders ADN

- ISO 21287
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- Standard cylinder with wide range of variants

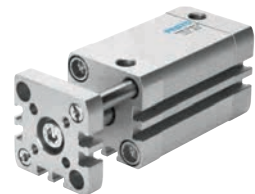
→ 21



Compact cylinders ADNGF

- Standard port pattern
- PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- With guide rod and yoke plate

→ 24



Short-stroke cylinders ADVC

- For very small installation spaces
- High clamping forces in a compact size

→ 26



Rodless cylinders

Linear drives DGC

- High-precision guide
- Quick and easy installation
- Space-saving
- Optimised mounting options

→ 29



Linear drives DGC-K

- Without external guide, for simple drive functions
- Compact – fitting length relative to stroke
- Easy to assemble and install

→ dgc-k



Semi-rotary drives

Twin-piston semi-rotary drives DRRD

- Very high accuracy in the end positions
- Very high bearing load capacity
- Very good axial run-out at the flanged shaft
- Ideal for use in handling applications

→ 32



Twin-piston semi-rotary drives DRQD-B

- Sturdy and precise with high torque resistance
- Modular and functional
- System product for handling and assembly technology

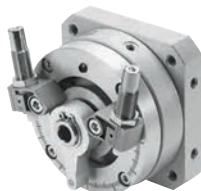
→ drqd



Swivel modules DSM-B

- Infinitely adjustable swivel angle
- Wide range of mounting options

→ 34



Drives with guides

Mini slides DGSL

- Guided unit with very precise linearity and parallelism

→ 36



Guided drives DFM

- Sturdy and precise
- With plain-bearing or recirculating ball bearing guide
- High resistance to torques and lateral forces

→ 38



Guided drives DFM-B

- Sturdy and precise
- With plain-bearing or recirculating ball bearing guide
- High resistance to torques and lateral forces
- Precision stroke adjustment in the end positions
- Pneumatic and hydraulic cushioning variants for shorter cycle times

→ 40



Guided drives DGRF, Clean Design

- Ideal for the food and packaging industry
- Increased corrosion protection
- Easy-to-clean design
- FDA-approved lubrication and sealing on the basic design
- Optional: unlubricated seal

→ dgrf

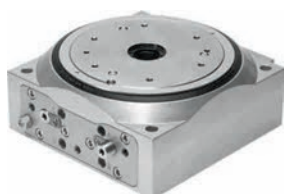


Rotary indexing tables

Rotary indexing tables DHTG

- Sturdy mechanical system, end-position cushioning and built-in overload protection
- Sensor function and adjustable speed of up to max. 3.3 Hz

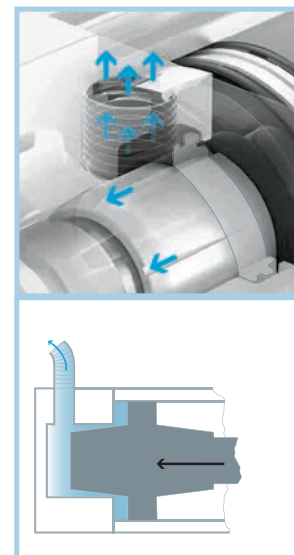
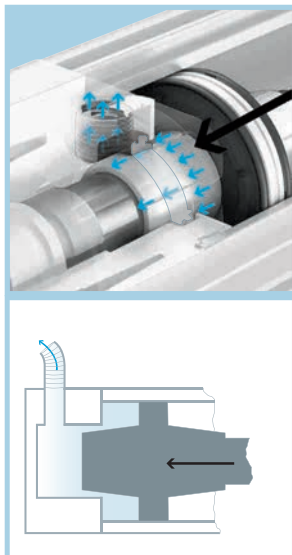
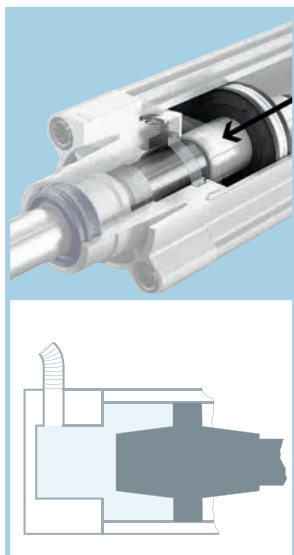
→ 42



More productivity, less work: PPS

Simply great: the uniquely self-adjusting end-position cushioning PPS saves massively on time during assembly, adjusts optimally to changes in load and speed and allows the cylinder to move dynamically and gently into the end position. This reduces wear on the entire system.

This and many other advantages are the result of the unique design with longitudinal slots which allow air to escape.



Utilise the advantages of PPS – in these cylinders

DSBC



DSBF



DSBG



DSNU



CRDSNU



ADN

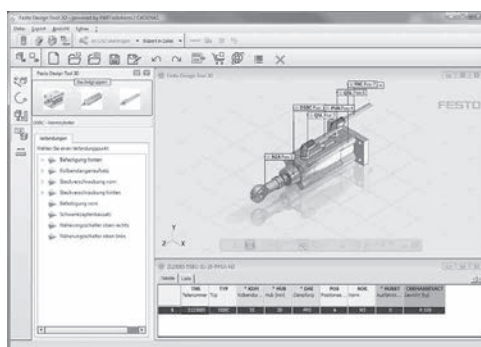


ADNGF



Software tools

Festo Design Tool 3D (FDT 3D)



Festo Design Tool 3D is a 3D product configurator for specific product combinations from Festo. This configurator makes your search for the right accessory simple, reliable and faster.

You can then order the assembly created with the configurator with just one order code – either completely preassembled or as individual parts in a single box. As a result, your bill of materials is shortened enormously and downstream processes such as product ordering, parts pulling and assembly are simplified to a significant extent. All ordering options are available in the following countries: IT, IE, TR, DK, SE, NO, NL, FI, FR, DE, BE, CH, ES, GB, ZA, AT, SK, PL, CZ, HU, SI, RU.

This tool can be found

- either via the address:
www.festo.com/FDT-3D in the above listed countries
- or on the CD “FDT 3D” (Part no. 135595 for the above named countries)

Self-adjusting end-position cushioning PPS for standard cylinders

FESTO

Less can be more: the advantages of self-adjusting cushioning at a glance



Less shock

Running smoothly, Part 1: The better the cushioning, the less settling and impact vibration. Better for the cylinder, better for the machine.



Less time

Save time and effort in adjusting. The calculation is simple: No. of cylinders x 5 mins = big cost savings



Less noise

Running smoothly, Part 2: Where there is no vibration, there is nothing to disturb the working environment of both: Workers and machines.



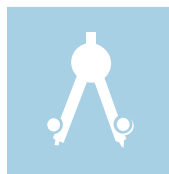
Less errors

Always correct. All by itself. PPS cushioning prevents setting errors and automatically compensates for changing loads.



Less adjustment

Goodbye screwdriver. Not just less adjustment, but no adjustment at all! Standard cylinders with PPS are self adjusting.



Less planning

Making it easy – setting multiple cylinders to run in parallel is a nightmare. PPS self-adjusting cushioning simplifies the task and improves performance. Simply fit and forget.



Less cleaning

A clean solution. No cushioning screws cuts dust and dirt traps and makes for smoother surfaces. In other words, adjusting-screw-free.



Less bulky

Compact cylinders ADN-PPS offer up to 300% more end of stroke energy absorption: Smaller or more powerful, the choice is yours.



Less variants

Cylinders with PPS cushioning have a far wider operating range than most standard cylinders. The result: Less sizes and variants needed for the same performance range.



Less risk

No screws, no setting on live machinery: Safer and faster. And no operator fiddling.



Less wear

Self-adjusting means always perfectly set. Perfectly set cushioning means cylinders operate more smoothly and longer. More machine uptime and greater throughput.



Less stock

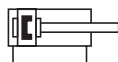
Less is more. Your financial controller will agree. Because with ISO cylinders featuring PPS cushioning, much less variety of versions suffices to cover almost every application.

1

Standard cylinders DSNU, to ISO 6432, double-acting

FESTO

1



- For very high requirements on running characteristics, service life and load carrying ability
- Universal use thanks to individual variants
- Extensive range of accessories

- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- www.festo.com/en/ex

Type codes – Basic design

DSNU	–		–		–		–		–	A
------	---	--	---	--	---	--	---	--	---	---

Type	
DSNU	Double-acting standard cylinder

Piston Ø [mm]	
	Stroke [mm]
8, 10	10, 25, 40, 50, 80, 100
12	10, 25, 40, 50, 80, 100, 125, 160, 200
16	10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200
20	10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320
25	10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500

Cushioning	
P	Elastic cushioning rings/pads at both ends
PPS	Pneumatic cushioning, self-adjusting at both ends

Position sensing	
A	Via proximity sensor

Variants

1 ... 500 mm Variable stroke	KP With clamping unit	K3 Female piston rod thread	K6 Shortened male piston rod thread
PPV Pneumatic cushioning, adjustable at both ends	K8 Extended piston rod	K5 Special piston rod thread	S10 Slow speed
Q With protection against rotation	S6 Heat-resistant seals up to max. 120 °C		S11 Low friction
S2 Through piston rod	K2 Extended male piston rod thread		R3 High corrosion protection

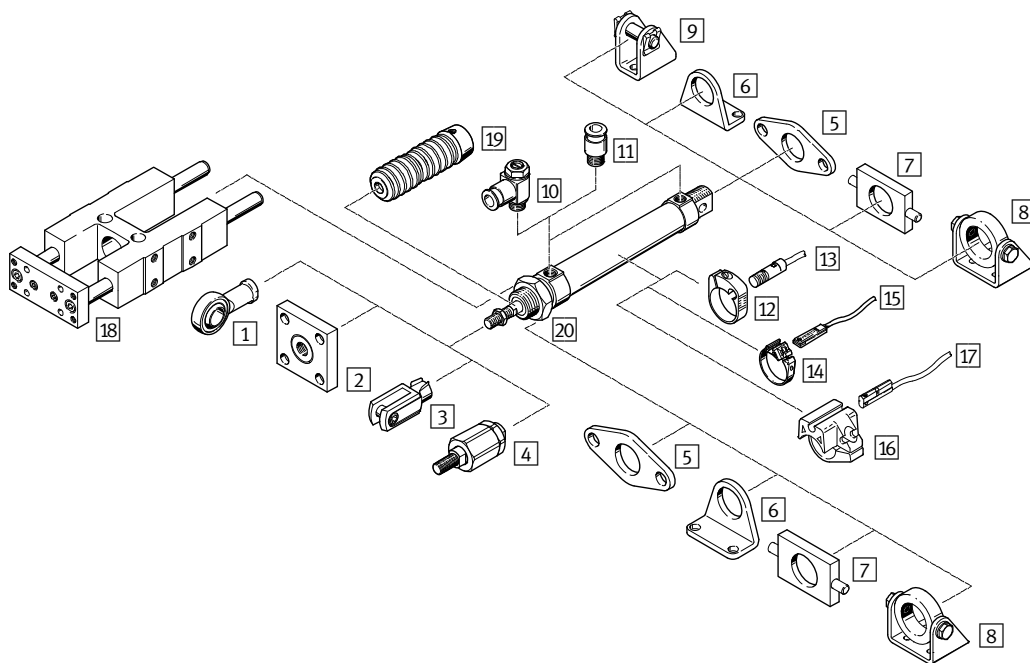
Ordering data – Variants

☐ ☐ ☐ ☐	Configurable product	This product and all its variants can be ordered using the configurator.	The configurator can be found on the DVD under Products or at → www.festo.com/catalogue/...	Enter the type or configuration part number in the search field.
---	-----------------------------	---	---	--

Ordering data – Basic design

Stroke [mm]	Piston Ø [mm]				
	8	12	16	20	25
	Cushioning – position sensing		Cushioning – position sensing		
	P – A	P – A	PPS – A	PPS – A	PPS – A
10	19177	19189	1908274	1908297	1908320
15			1908275	1908298	1908321
20			1908276	1908299	1908322
25	19178	19190	559263	559271	559282
30			1908277	1908300	1908323
35			1908278	1908301	1908324
40	19179	19191	559264	559272	559283
50	19180	19192	559265	559273	559284
60			1908279	1908302	1908325
70			1908280	1908303	1908326
80	19181	19193	559266	559274	559285
100	19182	19194	559267	559275	559286
125		19195	559268	559276	559287
150			1908281	1908304	1908327
160		19196	559269	559277	559288
200		19197	559270	559278	559289
250				559279	559290
300				559280	559291
320				559281	559292
400					559293
500					559294

Accessories



- 1 Rod eye SGS → 46
- 2 Coupling piece KSG/KSZ → [ksg](#)
- 3 Rod clevis SG → 46
- 4 Self-aligning rod coupler FK → 46
- 5 Flange mounting FBN → 15
- 6 Foot mounting HBN → 15
- 7 Swivel mounting WBN → 15
- 8 Swivel mounting SBN → 15
- 9 Clevis foot LBN → 15
- 10 One-way flow control valve GRLA/ GRLZ → 52
- 11 Push-in fitting QS → 149
- 12 Mounting kit SMBR → [smbr](#)
- 13 Proximity sensor SMEO-/ SMT-4U → [smeo-4u](#)
- 14 Mounting kit SMBR-8 → 114
- 15 Proximity sensor SME-/SMT-8 → 113
- 16 Mounting kit SMBR-10 → [smbr-10](#)
- 17 Proximity sensor SME-/SMT-10 → [sme-10](#)

18 Guide unit FEN → 47

19 Protective bellows kit DADB → [dadb](#)

20 Hex nut MSK → [msk](#)

5 Flange mounting FBN		
For Ø	Type	Part No.
8, 10	FBN-8/10	5129
12, 16	FBN-12/16	5130
20, 25	FBN-20/25	5131

6 Foot mounting HBN		
For Ø	Type	Part No.
8, 10	HBN-8/10x1	5123
	HBN-8/10x2	5124
12, 16	HBN-12/16x1	5125
	HBN-12/16x2	5126
20, 25	HBN-20/25x1	5127
	HBN-20/25x2	5128

7 Swivel mounting WBN		
For Ø	Type	Part No.
8, 10	WBN-8/10x1	8608
12, 16	WBN-12/16	8609
20, 25	WBN-20/25	8610

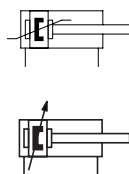
9 Clevis foot LBN		
For Ø	Type	Part No.
8, 10	LBN-8/10	6057
12, 16	LBN-12/16	6058
20, 25	LBN-20/25	6059

8 Swivel mounting SBN		
For Ø	Type	Part No.
20, 25	SBN-20/25	539927

Standard cylinders DSBC, to ISO 15552, double-acting

FESTO

1



- Strokes of up to 2,800 mm
- Excellent flexibility thanks to wide range of variants
- Extensive range of accessories makes it possible to install the cylinder virtually anywhere

- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- www.festo.com/en/ex

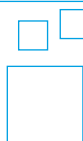
Type codes – Basic design

		DSBC	-		-		-		A	-	N3
Type											
DSBC	Double-acting standard cylinder										
Protection against rotation											
-	Without protection against rotation										
Running characteristics											
-	Standard										
Piston Ø [mm]											
	Stroke [mm]										
32, 40, 50, 63, 80, 100, 125	20, 25, 30, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500										
Piston rod type											
-	At one end										
Piston rod thread type											
-	Male thread										
Cushioning											
PPS	Pneumatic cushioning, self-adjusting at both ends										
Position sensing											
A	Via proximity sensor										
Standard											
N3	Based on ISO 15552										

Variants

1 ... 2,800 mm Variable stroke	F	Piston rod with female thread	T3	Temperature range -40 ... +80 °C	A2	Hard wiper seal
Q Square piston rod	D3	Sensor slot on 3 sides	T4	Temperature range 0 ... +150 °C	A3	Wiper seal for unlubricated operation
C Integrated clamping unit on the piston rod	P	Elastic cushioning rings/pads at both ends	P2	Bellows on bearing cap	...E	Piston rod extension
E... With end-position locking	R3	High corrosion protection	A1	Wiper seal with increased chemical resistance	...L	Piston rod thread extension
L Low friction	T1	Temperature range 0 ... 120 °C			PPV	Pneumatic cushioning, adjustable at both ends
U Uniformly slow movement						
T Through piston rod						

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

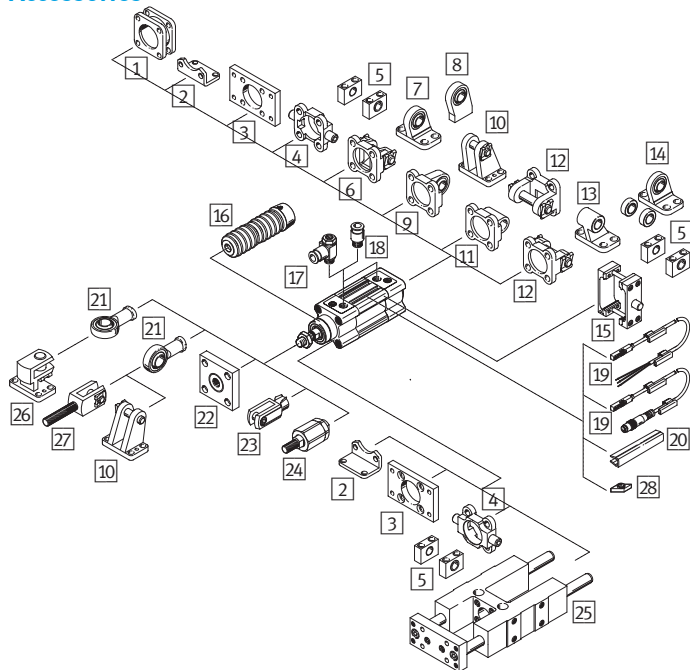
Enter the type or configuration
part number in the search field.

1

Ordering data – Basic design

Stroke [mm]	Piston Ø [mm]						
	32	40	50	63	80	100	125
	Cushioning – Position sensing						
	PPS A	PPS A	PPS A	PPS A	PPS A	PPS A	PPS A
20	2123085	2123780	2102628	2126684	2126636		
25	1376467	1376903	1376301	1383632	1383366	1384890	1804661
30	2123086	2123781	2102629	2126685	2126637		
40	1376468	1376904	1376304	1383633	1383367	1384891	1804662
50	1376469	1376905	1376305	1383634	1383368	1384892	1804663
60	2123087	2123782	2102630	2126686	2126638		
70	2123088	2123783	2102631	2126687	2126639		
80	1376470	1376906	1376306	1383635	1383369	1384893	1804664
100	1376471	1376907	1376307	1383636	1383370	1384894	1804665
125	1376472	1376908	1376308	1383637	1383371	1384895	1804666
150	2123089	2123784	2102632	2126688	2126640		
160	1376473	1376909	1376309	1383638	1383372	1384896	1804667
200	1376474	1376910	1376310	1383639	1383373	1384897	1804668
250	1376475	1376911	1376311	1383640	1383374	1384898	1804669
300	2123090	2123785	2102633	2126689	2126641		
320	1376476	1376912	1376312	1383641	1383375	1384899	1804671
400	1376477	1376913	1376313	1383642	1383376	1384900	1804672
500	1376478	1376914	1376314	1383643	1383377	1384901	1804673

Accessories



- 1 Multi-position kit DPNC → 18
- 2 Foot mounting HNC → 18
- 3 Flange mounting FNC → 18
- 4 Trunnion flange ZNCF → 18
- 5 Trunnion support LNKG → 18
- 6 Swivel flange SNC → 18
- 7 Clevis foot LSNG → [lsng](#)
- 8 Clevis foot LSNSG → [lsnsg](#)
- 9 Swivel flange SNCS → 18
- 10 Clevis foot LBG → [lbg](#)
- 11 Swivel flange SNCL → 18
- 12 Swivel flange SNCB → 18
- 13 Clevis foot LNG → [lng](#)
- 14 Clevis foot LSN → [lsn](#)
- 15 Trunnion mounting kit DAMT → 18
- 16 Protective bellows kit DADB → [dadb](#)
- 17 One-way flow control valve GRLA → 52
- 18 Push-in fitting QS → 149
- 19 Proximity sensor SME-/SMT-8M → 113
- 20 Slot cover ABP-5-S → [abp-5](#)
- 21 Rod eye SGS → 46
- 22 Coupling piece KSG/KSZ → [ksg](#)
- 23 Rod clevis SG → 46
- 24 Self-aligning rod coupler FK → 46
- 25 Guide unit FENG → 47
- 26 Right-angle clevis foot LQG → 18
- 27 Rod clevis SGA → 46
- 28 Slot nut ABAN → [aban](#)

Standard cylinders DSBC, to ISO 15552, double-acting

Accessories

1

[1] Multi-position kit DPNC

For Ø	Type	Part No.
32	DPNC-32	174418
40	DPNC-40	174419
50	DPNC-50	174420
63	DPNC-63	174421
80	DPNC-80	174422
100	DPNC-100	174423

[2] Foot mounting HNC/CRHNC¹⁾

For Ø	Type	Part No.	Type	Part No.
32	HNC-32	174369	CRHNC-32	176937
40	HNC-40	174370	CRHNC-40	176938
50	HNC-50	174371	CRHNC-50	176939
63	HNC-63	174372	CRHNC-63	176940
80	HNC-80	174373	CRHNC-80	176941
100	HNC-100	174374	CRHNC-100	176942
125	HNC-125	174375	CRHNC-125	176943

1) CRHNC: High corrosion protection

[3] Flange mounting FNC/CRFNC²⁾

For Ø	Type	Part No.	Type	Part No.
32	FNC-32	174376	CRFNC-32	161846
40	FNC-40	174377	CRFNC-40	161847
50	FNC-50	174378	CRFNC-50	161848
63	FNC-63	174379	CRFNC-63	161849
80	FNC-80	174380	CRFNC-80	161850
100	FNC-100	174381	CRFNC-100	161851
125	FNC-125	174382	CRFNC-125	185363

2) CRFNC: High corrosion protection

[4] Trunnion flange ZNCF

For Ø	Type	Part No.
32	ZNCF-32	174411
40	ZNCF-40	174412
50	ZNCF-50	174413
63	ZNCF-63	174414
80	ZNCF-80	174415
100	ZNCF-100	174416

[5] Trunnion support LNZG

For Ø	Type	Part No.
32	LNZG-32	32959
40	LNZG-40/50	32960
50	LNZG-40/50	32960
63	LNZG-63/80	32961
80	LNZG-63/80	32961
100	LNZG-100/125	32962

[6] Swivel flange SNC

For Ø	Type	Part No.
50	SNC-50	174385
80	SNC-80	174387
100	SNC-100	174388
125	SNC-125	174389

[9] Swivel flange SNCS

For Ø	Type	Part No.
50	SNCS-50	174399
80	SNCS-80	174401
100	SNCS-100	174402
125	SNCS-125	174403

[11] Swivel flange SNCL

For Ø	Type	Part No.
32	SNCL-32	174404
40	SNCL-40	174405
50	SNCL-50	174406
63	SNCL-63	174407
80	SNCL-80	174408
100	SNCL-100	174409
125	SNCL-125	174410

[12] Swivel flange SNCB/SNCB-R3³⁾

For Ø	Type	Part No.	Type	Part No.
32	SNCB-32	174390	SNCB-32-R3	176944
40	SNCB-40	174391	SNCB-40-R3	176945
50	SNCB-50	174392	SNCB-50-R3	176946
63	SNCB-63	174393	SNCB-63-R3	176947
80	SNCB-80	174394	SNCB-80-R3	176948
100	SNCB-100	174395	SNCB-100-R3	176949
125	SNCB-125	174396	SNCB-125-R3	176950

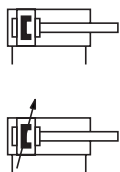
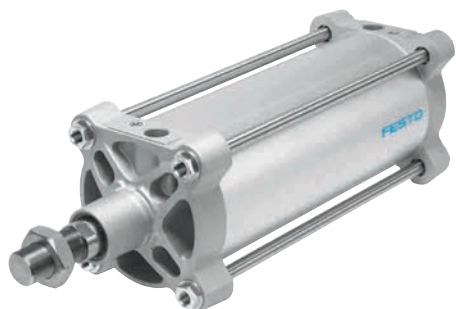
3) SNCB-R3: High corrosion protection

[15] Trunnion mounting kit DAMT

For Ø	Type	Part No.
32	DAMT-V1-32-A	2213233
40	DAMT-V1-40-A	2214899
50	DAMT-V1-50-A	2214909
63	DAMT-V1-63-A	2214971
80	DAMT-V1-80-A	163529
100	DAMT-V1-100-A	163530
125	DAMT-V8-125-A	1812524

[26] Right-angle clevis foot LQG

For Ø	Type	Part No.
32	LQG-32	31768
40	LQG-40	31769
50	LQG-50	31770
63	LQG-63	31771
80	LQG-80	31772
100	LQG-100	31773



- Strokes of up to 2,700 mm
- Excellent flexibility thanks to wide range of variants
- An extensive range of accessories makes it possible to install the cylinder virtually anywhere

- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

1

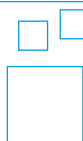
Type codes – Basic design

		DSBG	-		-		-		-	N3
Type										
DSBG	Double-acting standard cylinder									
Central swivel mounting										
-	None									
Piston Ø [mm]										
	Stroke [mm]									
160, 200	25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500, 1 ... 2 700									
Piston rod type										
-	At one end									
Cushioning										
P	Elastic cushioning rings/pads at both ends									
PPV	Pneumatic cushioning, adjustable at both ends									
Position sensing										
A	Via proximity sensor									
Standard										
N3	Corresponds to ISO 15552									

Variants

V	Central swivel mounting: centrally clamped	T1	Heat-resistant seals up to max. 120 °C	...L	Piston rod thread extension 1 ... 100 mm	B1	Integrated stud bolts at both ends
1 ... 2 700 mm	Variable stroke	T4	Temperature range 0 ... +150 °C	M36	Piston rod thread M36	B2	Integrated stud bolts on bearing cap
T	Through piston rod	...E	Piston rod extension 1 ... 500 mm	PPS	Pneumatic cushioning, self-adjusting at both ends	B3	Integrated stud bolts on end cap
R3	High corrosion protection						

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Configuration part no.		
Piston Ø [mm]	Type	Part No.
160	DSBG-...-160-...	2036032
200	DSBG-...-200-...	2344936

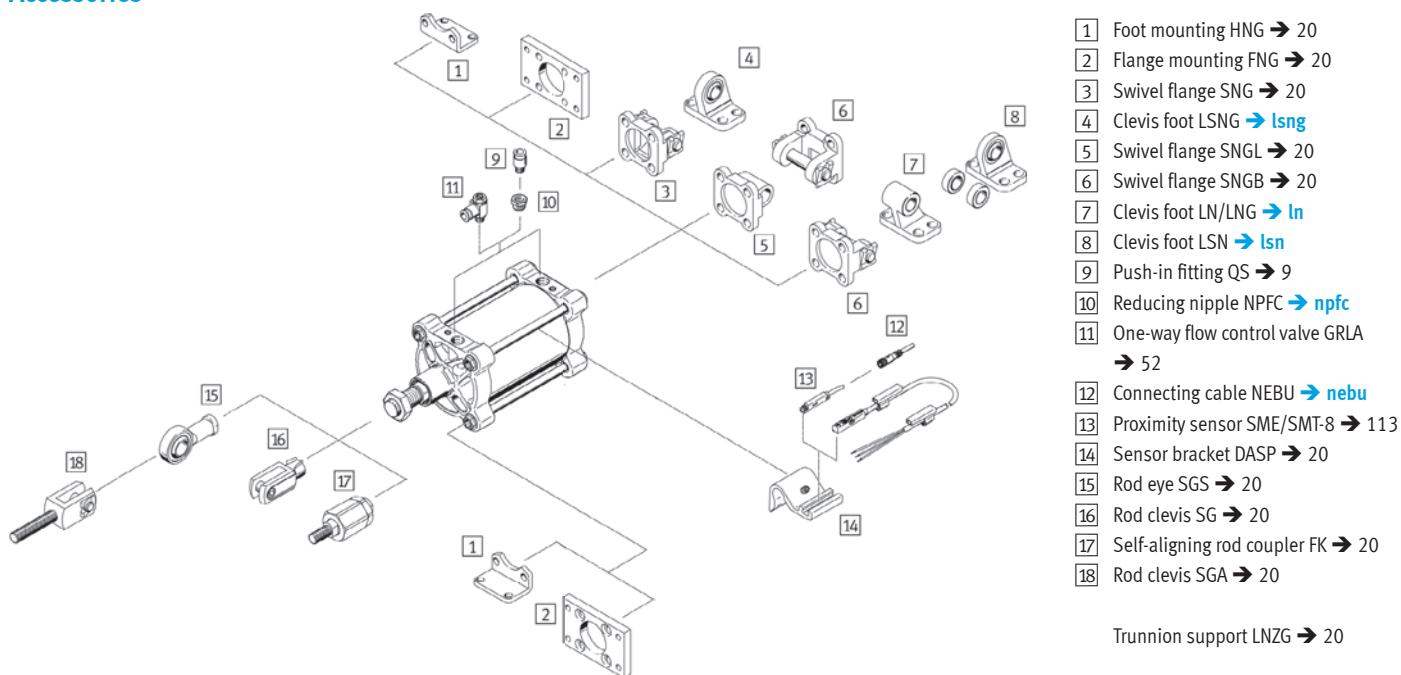
Standard cylinders DSBG, to ISO 15552, double-acting

FESTO

Ordering data – Basic design

Stroke [mm]	Piston Ø [mm]			
	160	200	160	200
	Cushioning		Cushioning – Position sensing	
	P	P	PPV A	PPV A
25	2536747	2537448	2029462	2390139
40	2536748	2537449	2029463	2390140
50	2536749	2537450	2029464	2390141
80	2536750	2537451	2029465	2390142
100	2536751	2537452	2029466	2390143
125	2536752	2537454	2029467	2390144
160	2536753	2537455	2029468	2390145
200	2536754	2537456	2029469	2390146
250	2536755	2537457	2029470	2390147
320	2536756	2537458	2029471	2390148
400	2536758	2537459	2029472	2390149
500	2536759	2537460	2029473	2390150
1 ... 2 700	2537196	2537445		
10 ... 2 700			2035926	2389803

Accessories



- 1 Foot mounting HNG → 20
- 2 Flange mounting FNG → 20
- 3 Swivel flange SNG → 20
- 4 Clevis foot LSNG → [lsng](#)
- 5 Swivel flange SNGL → 20
- 6 Swivel flange SNGB → 20
- 7 Clevis foot LN/LNG → [ln](#)
- 8 Clevis foot LSN → [lsn](#)
- 9 Push-in fitting QS → 9
- 10 Reducing nipple NPFC → [npfc](#)
- 11 One-way flow control valve GRLA → 52
- 12 Connecting cable NEBU → [nebu](#)
- 13 Proximity sensor SME/SMT-8 → 113
- 14 Sensor bracket DASP → 20
- 15 Rod eye SGS → 20
- 16 Rod clevis SG → 20
- 17 Self-aligning rod coupler FK → 20
- 18 Rod clevis SGA → 20

Trunnion support LNKG → 20

1 Foot mounting HNG		
For Ø	Type	Part No.
160	HNG-160	34476
200	HNG-200	34477

5 Swivel flange SNGL		
For Ø	Type	Part No.
160	SNGL-160	151534
200	SNGL-200	151535

15 Rod eye SGS		
For Ø	Type	Part No.
160,	SGS-M36x2	10775
200		

18 Rod clevis SGA		
For Ø	Type	Part No.
160,	SGA-M36X2	10771
200		

2 Flange mounting FNG		
For Ø	Type	Part No.
160	FNG-160	34478
200	FNG-200	34479

6 Swivel flange SNGB		
For Ø	Type	Part No.
160	SNGB-160	34547
200	SNGB-200-B	562455

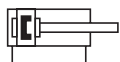
16 Rod clevis SG		
For Ø	Type	Part No.
160,	SG-M36X2	9581
200		

Trunnion support LNKG		
For Ø	Type	Part No.
160,	LNKG-160/200	35780
200		

3 Swivel flange SNG		
For Ø	Type	Part No.
160	SNG-160	152597
200	SNG-200	152598

14 Sensor bracket DASP		
For Ø	Type	Part No.
160,	DASP-M4-160-A	1553813
200		

17 Self-aligning rod coupler FK		
For Ø	Type	Part No.
160,	FK-M36X2	10746
200		



- Compact cylinders with standard dimensions
- Innovative technology for maximum speeds
- Flexible in use thanks to easy-to-configure variants

- Selected types in accordance with ATEX directive for potentially explosive atmospheres
[→ www.festo.com/en/ex](http://www.festo.com/en/ex)

1

Type codes – Basic design

		ADN	–		–		–		–	P	–	A
Type												
ADN	Double-acting compact cylinder											
Piston Ø [mm]												
	Stroke [mm]											
12	5, 10, 15, 20, 25, 30, 40											
16	5, 10, 15, 20, 25, 30, 40, 50											
20, 25	5, 10, 15, 20, 25, 30, 40, 50, 60											
32, 40, 50	5, 10, 15, 20, 25, 30, 40, 50, 60, 80											
63, 80, 100	10, 15, 20, 25, 30, 40, 50, 60, 80											
Piston rod thread												
A	Male thread											
I	Female thread											
Cushioning												
P	Elastic cushioning rings/pads at both ends											
PPS	Pneumatic cushioning, self-adjusting at both ends											
Position sensing												
A	Via proximity sensor											

Variants

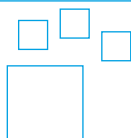
1 ... 500 mm Variable stroke
 Q Square piston rod
 K8 Extended piston rod
 S1 Reinforced piston rod

S2 Through piston rod
 S20 Through, hollow piston rod
 K2 Extended male piston rod thread

K5 Special piston rod thread
 K10 Smooth anodised aluminium piston rod
 S6 Heat-resistant seals up to max. 120 °C
 S10 Slow speed

S11 Low friction
 R3 High corrosion protection
 R8 Dust protection
 TL Laser etched rating plate
 TT Low temperature
 KP With clamping unit, attached
 EL... With end-position locking

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type or configuration part number in the search field.

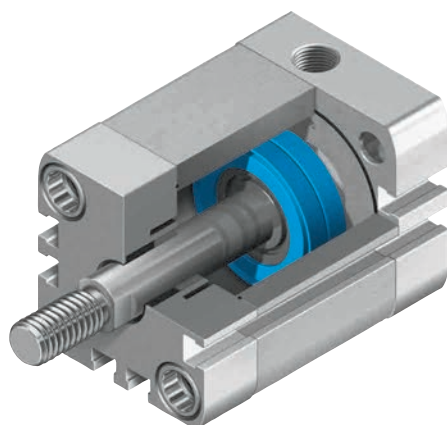
Compact cylinders ADN, to ISO 21287, double-acting

FESTO

Ordering data – Basic design

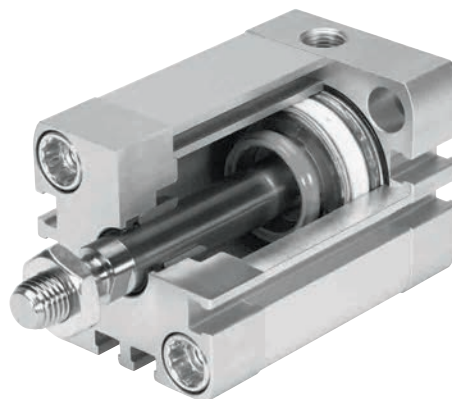
Stroke [mm]	Piston Ø [mm]									
	12	16	20	25	32	40	50	63	80	100
	Piston rod thread – cushioning – position sensing									
			A – PPS – A	A – PPS – A	A – PPS – A	A – PPS – A	A – PPS – A	A – PPS – A	A – PPS – A	
10			577166	577182	572655	572673	572691	572709	572727	
15			577167	577183	572656	572674	572692	572710	572728	
20			577168	577184	572657	572675	572693	572711	572729	
25			577169	577185	572658	572676	572694	572712	572730	
30			577170	577186	572659	572677	572695	572713	572731	
40			577171	577187	572660	572678	572696	572714	572732	
50			577172	577188	572661	572679	572697	572715	572733	
60			577173	577189	572662	572680	572698	572716	572734	
80					572663	572681	572699	572717	572735	
	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A
5	536211	536226	536242	536259	536278	536299	536320			
10	536212	536227	536243	536260	536279	536300	536321	536342	536363	536384
15	536213	536228	536244	536261	536280	536301	536322	536343	536364	536385
20	536214	536229	536245	536262	536281	536302	536323	536344	536365	536386
25	536215	536230	536246	536263	536282	536303	536324	536345	536366	536387
30	536216	536231	536247	536264	536283	536304	536325	536346	536367	536388
40	536217	536232	536248	536265	536284	536305	536326	536347	536368	536389
50		536341	536249	536266	536285	536306	536327	536348	536369	536390
60			536362	536383	536286	536307	536328	536349	536370	536391
80					536287	536308	536329	536350	536371	536392
			I – PPS – A	I – PPS – A	I – PPS – A	I – PPS – A	I – PPS – A	I – PPS – A	I – PPS – A	
10			577158	577174	572646	572664	572682	572700	572718	
15			577159	577175	572647	572665	572683	572701	572719	
20			577160	577176	572648	572666	572684	572702	572720	
25			577161	577177	572649	572667	572685	572703	572721	
30			577162	577178	572650	572668	572686	572704	572722	
40			577163	577179	572651	572669	572687	572705	572723	
50			577164	577180	572652	572670	572688	572706	572724	
60			577165	577181	572653	572671	572689	572707	572725	
80					572654	572672	572690	572708	572726	

ADN-32-...-A-P-A



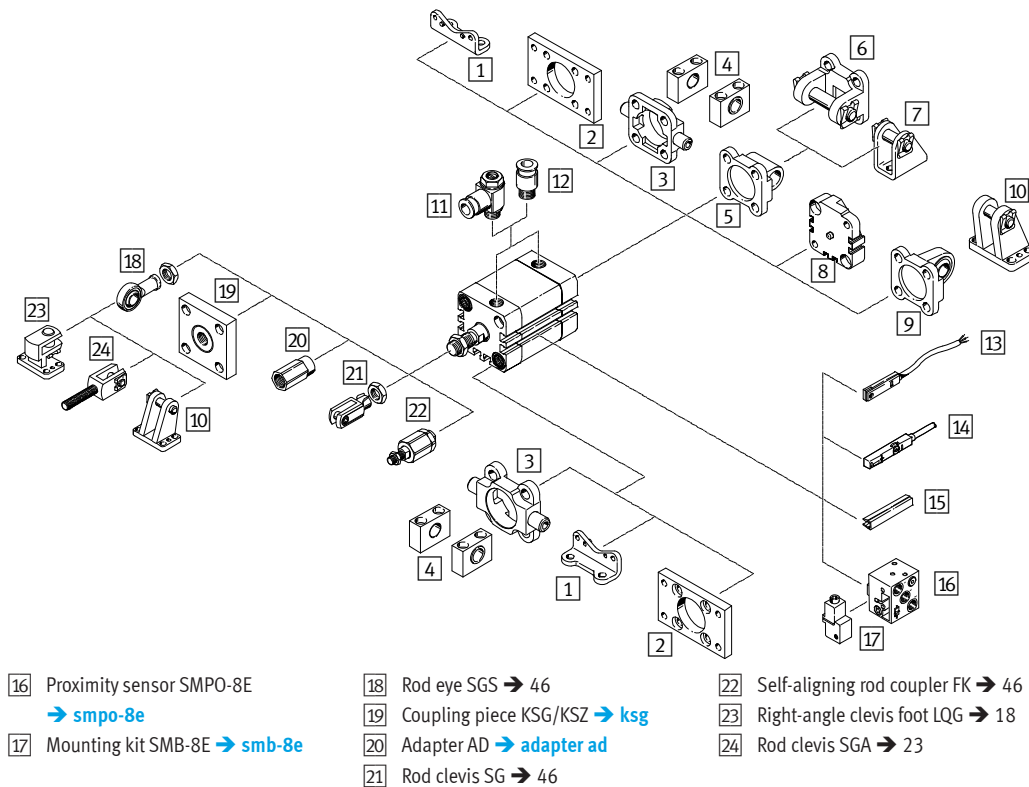
Compact cylinder ADN-32-...-A-P-A with male piston rod thread, elastic cushioning rings/pads at both ends and position sensing via proximity sensor

ADN-32-...-A-PPS-A



Compact cylinder ADN-32-...-A-PPS-A with male piston rod thread, self-adjusting pneumatic cushioning at both ends and position sensing via proximity sensor

Accessories



- 1 Foot mounting HNA → 23
- 2 Flange mounting FNC → 18
- 3 Trunnion flange ZNCF → 18
- 4 Trunnion support LN2G → 18
- 5 Swivel flange SNCL → 18
- 6 Swivel flange SNCB → 18
- 7 Clevis foot LBN → 15
- 8 Multi-position kit DPNA → 23
- 9 Swivel flange SNCS → [sncs](#)
- 10 Clevis foot LBG → [lbg](#)
- 11 One-way flow control valve GRLA/
 GRLZ → 52
- 12 Push-in fitting QS → 149
- 13 Proximity sensor SME-/SMT-8
 → [sme-8](#)
 connecting cable NEBU → [nebu](#)
- 14 Proximity sensor SME-/SMT-8M
 → 113,
 connecting cable NEBU → [nebu](#)
- 15 Slot cover ABP-5-S → [abp-5](#)

1 Foot mounting HNA		
For Ø	Type	Part No.
12	HNA-12	537237
16	HNA-16	537238
20	HNA-20	537239
25	HNA-25	537240
32	HNA-32	537241
40	HNA-40	537242
50	HNA-50	537243
63	HNA-63	537244
80	HNA-80	537249
100	HNA-100	537250

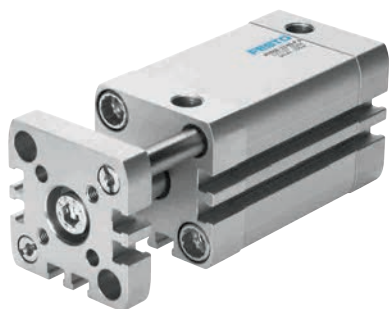
8 Multi-position kit DPNA		
For Ø	Type	Part No.
12	DPNA-12	537263
16	DPNA-16	537264
20	DPNA-20	537265
25	DPNA-25	537266
32	DPNA-32	537267
40	DPNA-40	537268
50	DPNA-50	537269
63	DPNA-63	537270
80	DPNA-80	537271
100	DPNA-100	537272

24 Rod clevis SGA		
For Ø	Type	Part No.
32	SGA-M10x1,25	32954
40		
50	SGA-M12x1,25	10767
63	SGA-M16x1,25	10768
80		
100		

Compact cylinders ADNGF, standard port pattern, double-acting

FESTO

1



- The drive is equipped with self-adjusting, pneumatic end-position cushioning
- Larger loads
- Higher speeds
- Larger cushioning capacity
- No adjustment required
- Time-saving
- Noise reduction

Type codes – Basic design

ADNGF		–		–		–	PPS	–	A
Type									
ADNGF	Double-acting compact cylinder								
Piston Ø [mm]									
	Stroke [mm]								
20, 25	10, 15, 20, 25, 30, 40, 50, 60								
32, 40, 50, 63, 80, 100	10, 15, 20, 25, 30, 40, 50, 60, 80								
Cushioning									
PPS	Pneumatic cushioning, self-adjusting at both ends								
Position sensing									
A	Via proximity sensor								

Variants

12 ... 100 mm Piston Ø	S2	Through piston rod
1 ... 400 mm Variable stroke	S6	Heat-resistant seals up to max. 120 °C
P Elastic cushioning rings/pads at both ends	TL	Laser etched rating plate

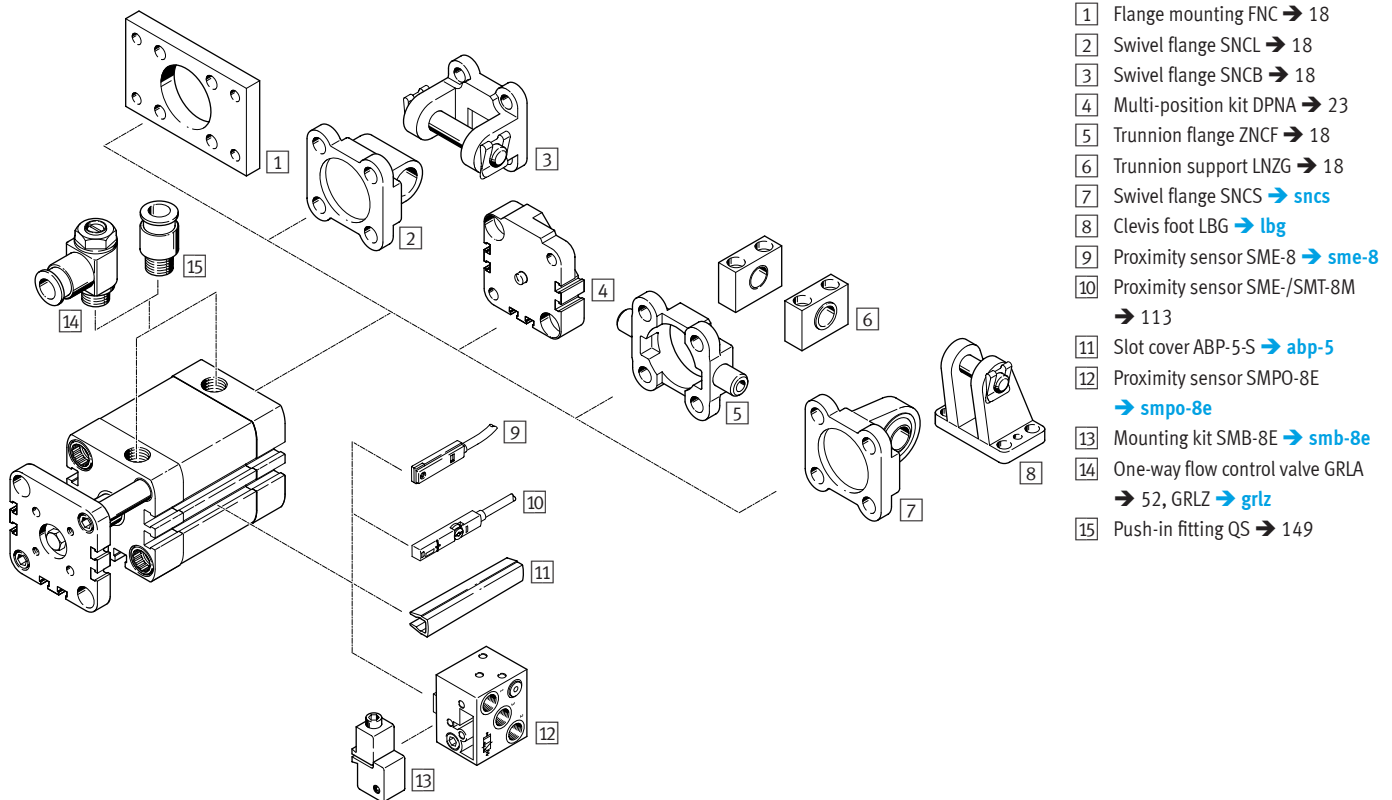
Ordering data – Variants

☐ ☐ ☐ ☐	Configurable product	This product and all its variants can be ordered using the configurator.	The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...	Enter the type or configuration part number in the search field.
---	-----------------------------	---	---	--

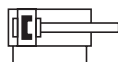
Ordering data – Basic design

Stroke [mm]	Piston Ø [mm]						
	20	25	32	40	50	63	80
	Cushioning – position sensing						
	PPS – A	PPS – A	PPS – A	PPS – A	PPS – A	PPS – A	PPS – A
10	577208	577216	574022	574031	574040	574049	574058
15	577209	577217	574023	574032	574041	574050	574059
20	577210	577218	574024	574033	574042	574051	574060
25	577211	577219	574025	574034	574043	574052	574061
30	577212	577220	574026	574035	574044	574053	574062
40	577213	577221	574027	574036	574045	574054	574063
50	577214	577222	574028	574037	574046	574055	574064
60	577215	577223	574029	574038	574047	574056	574065
80			574030	574039	574048	574057	574066

Accessories



1



- Short-stroke cylinders for short strokes and tight fitting spaces
- Mounting hole pattern to ISO 15552 from Ø 32 mm
- Application-oriented housing and piston rod variants
- Air connections and profile slot for proximity sensors on one side

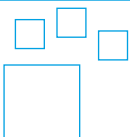
Type codes – Basic design

		ADVC	–		–		–		–	P	–	
Type												
ADVC	Double-acting short-stroke cylinder											
Piston Ø [mm]												
	Stroke [mm]											
6, 10, 12	5, 10											
16, 20, 25	5, 10, 15, 20, 25											
32, 40	5, 10, 15, 20, 25											
50, 63	10, 15, 20, 25											
Piston rod thread												
A	Male thread											
I	Female thread											
Cushioning												
P	Elastic cushioning rings/pads at both ends											
Position sensing												
–	None											
A	Via proximity sensor											

Variants

Piston rod thread
 – Without thread

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
 → www.festo.com/catalogue/...

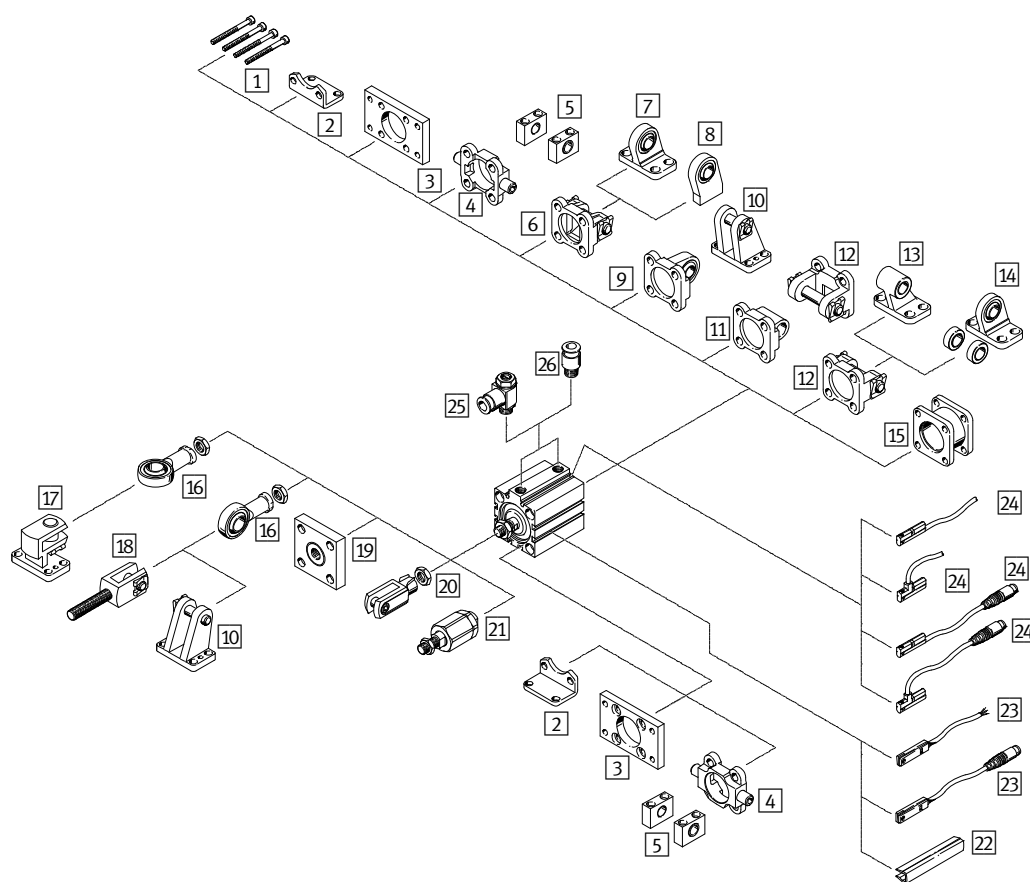
Enter the type or configuration part number in the search field.

Ordering data – Basic design

Stroke [mm]	Piston Ø [mm]									
	6	10	12	16	20	25	32	40	50	63
Piston rod thread – cushioning										
	A – P	A – P	A – P	A – P	A – P	A – P	A – P	A – P	A – P	A – P
5	188066	188078	188094	188123	188155	188187	188219	188247		
10	188067	188079	188095	188124	188156	188188	188220	188248	188272	188296
15				188125	188157	188189	188221	188249	188273	188297
20				188126	188158	188190	188222	188250	188274	188298
25				188127	188159	188191	188223	188251	188275	188299
Piston rod thread – cushioning										
	I – P	I – P	I – P	I – P	I – P	I – P	I – P	I – P	I – P	I – P
5			188090	188113	188145	188177	188209	188237		
10			188091	188114	188146	188178	188210	188238	188264	188288
15				188115	188147	188179	188211	188239	188265	188289
20				188116	188148	188180	188212	188240	188266	188290
25				188117	188149	188181	188213	188241	188267	188291
Piston rod thread – cushioning – position sensing										
	A – P – A	A – P – A	A – P – A	A – P – A	A – P – A	A – P – A	A – P – A	A – P – A	A – P – A	A – P – A
5	188064	188076	188092	188118	188150	188182	188214	188242		
10	188065	188077	188093	188119	188151	188183	188215	188243	188268	188292
15				188120	188152	188184	188216	188244	188269	188293
20				188121	188153	188185	188217	188245	188270	188294
25				188122	188154	188186	188218	188246	188271	188295
Piston rod thread – cushioning – position sensing										
	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A	I – P – A
5			188088	188108	188140	188172	188204	188232		
10			188089	188109	188141	188173	188205	188233	188260	188284
15				188110	188142	188174	188206	188234	188261	188285
20				188111	188143	188175	188207	188235	188262	188286
25				188112	188144	188176	188208	188236	188263	188287

Accessories

1



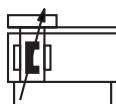
- 1 Mounting screws (not included in the scope of delivery)
- 2 Foot mounting HNC → 18
- 3 Flange mounting FNC → 18
- 4 Trunnion flange ZNCF → 18
- 5 Trunnion support LNZG → 18
- 6 Swivel flange SNC → [snc](#)
- 7 Clevis foot LSNG → [lsng](#)
- 8 Clevis foot LSNSG → [lsnsg](#)
- 9 Swivel flange SNCS → [sncs](#)
- 10 Clevis foot LBG → [lbg](#)
- 11 Swivel flange SNCL → 18
- 12 Swivel flange SNCB → 18
- 13 Clevis foot LNG → [lng](#)
- 14 Clevis foot LSN → [lsn](#)
- 15 Multi-position kit DPNC → 18
- 16 Rod eye SGS → 46
- 17 Right-angle clevis foot LQG → 18
- 18 Rod clevis SGA → 46
- 19 Coupling piece KSG → [ksg](#)
- 20 Rod clevis SG → 46
- 21 Self-aligning rod coupler FK → 46
- 22 Slot cover ABP-5-S → [abp-5](#)
- 23 Proximity sensor SME-/SMT-8M → 113
- 24 Proximity sensor SME-/SMT-10M → 28
- 25 One-way flow control valve GRLA → 52
- 26 Push-in fitting QS → 149

24 Proximity sensor, magnetic reed

Description	Type	Part No.
Cable, 2.5 m, 3-wire	SME-10M-DS-24V-E-2,5-L-OE	551365
Plug M8x1, 3-pin	SME-10M-DS-24V-E-0,3-L-M8D	551367

24 Proximity sensor, magneto-resistive

Description	Type	Part No.
Cable, 2.5 m, 3-wire	SMT-10M-PS-24V-E-2,5-L-OE	551373
Plug M8x1, 3-pin	SMT-10M-PS-24V-E-0,3-L-M8D	551375



- Compact dimensions
- Quick and sturdy installation and mounting
- High precision and load carrying ability
- Excellent running characteristics and low air consumption
- Precision interfaces
- Many additional features

Type codes – Basic design

Type		DGC – [] – [] – [] – [] – A				
DGC	Linear drive					
Piston Ø [mm]						
Stroke [mm]						
	Guide G	Guide GF	Guide KF			
8	1 ... 1,500	–	1 ... 1,300			
12	1 ... 2,000	–	1 ... 1,900			
18	1 ... 3,000	1 ... 3,000	1 ... 3,000			
25, 32, 40	1 ... 8,500	1 ... 8,500	1 ... 8,500			
50, 63	1 ... 5,000	1 ... 5,000	1 ... 5,000			
Guide						
G	Basic design					
GF	Plain-bearing guide					
KF	Recirculating ball bearing guide					
Cushioning						
P	Elastic cushioning rings/pads at both ends	1				
PPV	Pneumatic cushioning, adjustable at both ends	2				
YSR	Self-adjusting shock absorbers at both ends	3				
YSRW	Self-adjusting, progressive shock absorbers at both ends	3				
Position sensing						
A	Via proximity sensor					

1 Only for DGC-G/DGC-KF with piston Ø 8 and 12 mm.

2 Only for DGC-G/DGC-KF with piston Ø 18, 25, 32, 40, 50 and 63 mm.

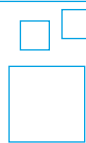
3 With DGC-G: only for piston Ø 8 and 12 mm.

Variants

N	NPT thread	C	Lubrication adapter
GP	Protected recirculating ball bearing guide	KL	Additional slide on left
		KR	Additional slide on right

Ordering data – Variants

1



Configurable
product

This product and all its variants
can be ordered using the
configurator.

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

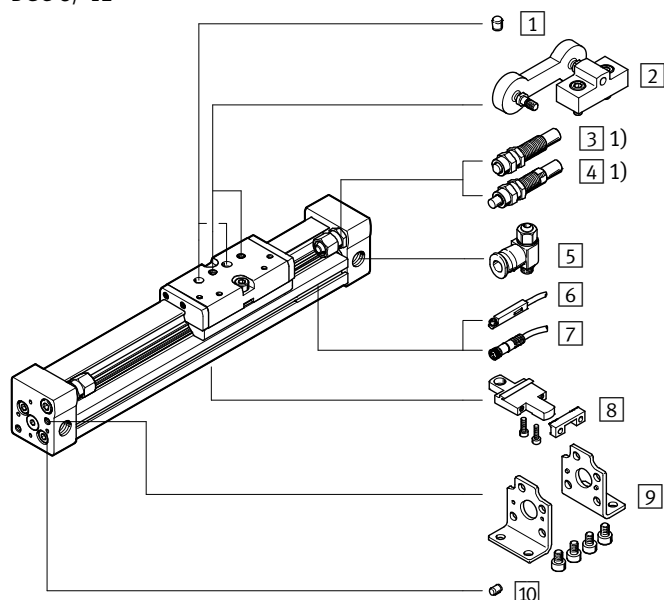
Enter the type or configuration
part number in the search field.

Configuration part no.

Ø	Type	Part No.
8	DGC-8-...	530906
12	DGC-12-...	530907
18	DGC-18-...	532446
25	DGC-25-...	532447
32	DGC-32-...	532448
40	DGC-40-...	532449
50	DGC-50-...	532450
63	DGC-63-...	532451

Accessories

DGC-8/-12

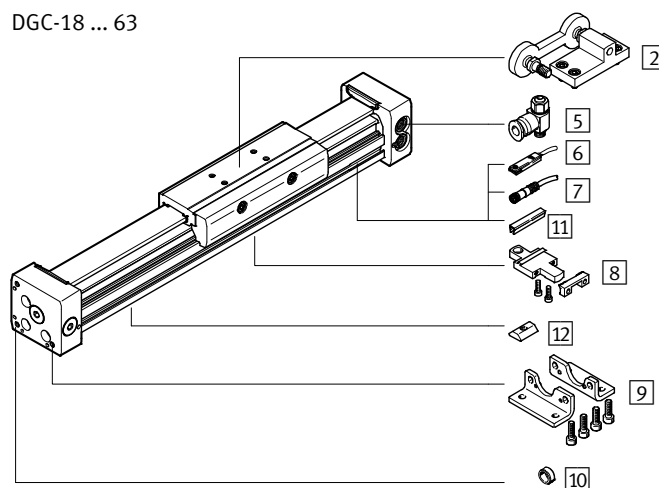


- 1 Centring pin ZBS¹⁾
- 2 Moment compensator FKC → 31
- 3 Shock absorber YSR → [ysr](#)
- 4 Shock absorber YSRW-DGC
→ 31
- 5 One-way flow control valve GRLA
→ 52

1) Included in the scope of delivery of the drive

- 6 Proximity sensor
SME-/SMT-8 → [sme-8](#)
SME-/SMT-10 → [sme-10](#)
SME-/SMT-8M → 113
SME-/SMT-10M → [sme-10m](#)

DGC-18 ... 63



- 7 Connecting cable NEBU → [nebu](#)
- 8 Profile mounting MUC → 31
- 9 Foot mounting HPC → 31
- 10 Centring pin/sleeve ZBS/ZBH
→ 31
- 11 Slot cover ABPS → [abp](#)
- 12 Slot nut HMBN → 31

Accessories

2 Moment compensator FKC		
For Ø	Type	Part No.
8	FKC-8/12	529350
12	FKC-8/12	529350
18	FKC-18	538714
25	FKC-25	538715
32	FKC-32	538961
40	FKC-40	538962
50	FKC-50/63	545240
63	FKC-50/63	545240

4 Shock absorber YSRW-DGC		
For Ø	Type	Part No.
For DGC-G		
8	YSRW-DGC-8	540344
12	YSRW-DGC-12	540345
For DGC-GF		
18	YSRW-DGC-18-GF	540346
25	YSRW-DGC-25-GF	540348
32	YSRW-DGC-32-GF	540350
40	YSRW-DGC-40-GF	540352
50	YSRW-DGC-40/50-B	1232870
63	YSRW-DGC-63	543069
For DGC-KF		
18	YSRW-DGC-18-KF	540347
25	YSRW-DGC-25-KF	540349
32	YSRW-DGC-32-KF	540351
40	YSRW-DGC-40/50-B	1232870
50	YSRW-DGC-40/50-B	1232870
63	YSRW-DGC-63	543069

8 Profile mounting MUC		
For Ø	Type	Part No.
8	MUC-8	526384
12	MUC-12	526387
18	MUC-18	531752
25	MUC-25	531753
32	MUC-32	531754
40	MUC-40	531755
50	MUC-50	531756
63	MUC-63	531757

9 Foot mounting HPC		
For Ø	Type	Part No.
8	HPC-8	526385
12	HPC-12	526388
18	HPC-18	533667
25	HPC-25	533668
32	HPC-32	533669
40	HPC-40	533670
50	HPC-50	545236
63	HPC-63	545237

10 Centring pin/sleeve ZBS/ZBH¹⁾			
For Ø	Description	Type	Part No.
For DGC-G			
8, 12	For slide	ZBS-5	150928
8, 12	For end cap	ZBS-2	525273
50, 63		ZBH-9	150927
For DGC-GF			
18	For slide	ZBS-5	150928
25 ... 63		ZBH-9	150927
50, 63	For end cap	ZBH-9	150927
For DGC-GF			
8, 12, 18	For slide	ZBS-5	150928
25 ... 63		ZBH-9	150927
8, 12	For end cap	ZBH-2	525273
18		ZBS-5	150928
25 ... 63		ZBH-9	150927

1) Packaging unit 10 pieces.

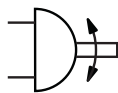
12 Slot nut HMBN¹⁾		
For Ø	Type	Part No.
25, 32, 40	HMBN-5-1M5	547264
50, 63	HMBN-5-2M5	186566

1) Packaging unit 10 pieces.

Twin-piston semi-rotary drives DRRD, double-acting

FESTO

1



- High mass moments of inertia
- Low backlash and dynamic
- Defined interfaces
- Supply port at one end
- Choice of mounting options

- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- www.festo.com/en/ex

Type codes – Basic design

Type		DRRD	–		–	180	–	FH	–		A
Size											
Nominal swivel angle [°]											
16, 20, 25, 32, 35, 40		180									
Output shaft											
FH		Flanged shaft, hollow									
Cushioning											
P		Elastic cushioning rings/pads at both ends									
Y9		Linear shock absorber, self-adjusting at both ends, internal									
Position sensing											
A		Via proximity sensor									

Variants

8, 10, 12, 50, 63

Sizes

P2 Energy throughfeed: pneumatic, 2 channels

P4 Energy throughfeed: pneumatic, 4 channels

P8 Energy throughfeed: pneumatic, 8 channels

P2E2 Energy throughfeed: pneumatic, 2 channels; electric, 2 signals

P4E6 Energy throughfeed: pneumatic, 4 channels; electric, 6 signals

P8E8 Energy throughfeed: pneumatic, 8 channels; electric, 8 signals

Y10 Cushioning: linear shock absorber, self-adjusting at both ends, hard, internal

Y12 Cushioning: linear shock absorber, self-adjusting at both ends, external

PS1 1 intermediate position

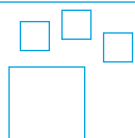
E1 End-position locking at both ends

R Sensor mounting, external: mounting rail for proximity sensor

SG Splash-proof design

DN Without operating instructions

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Twin-piston semi-rotary drives DRRD, double-acting

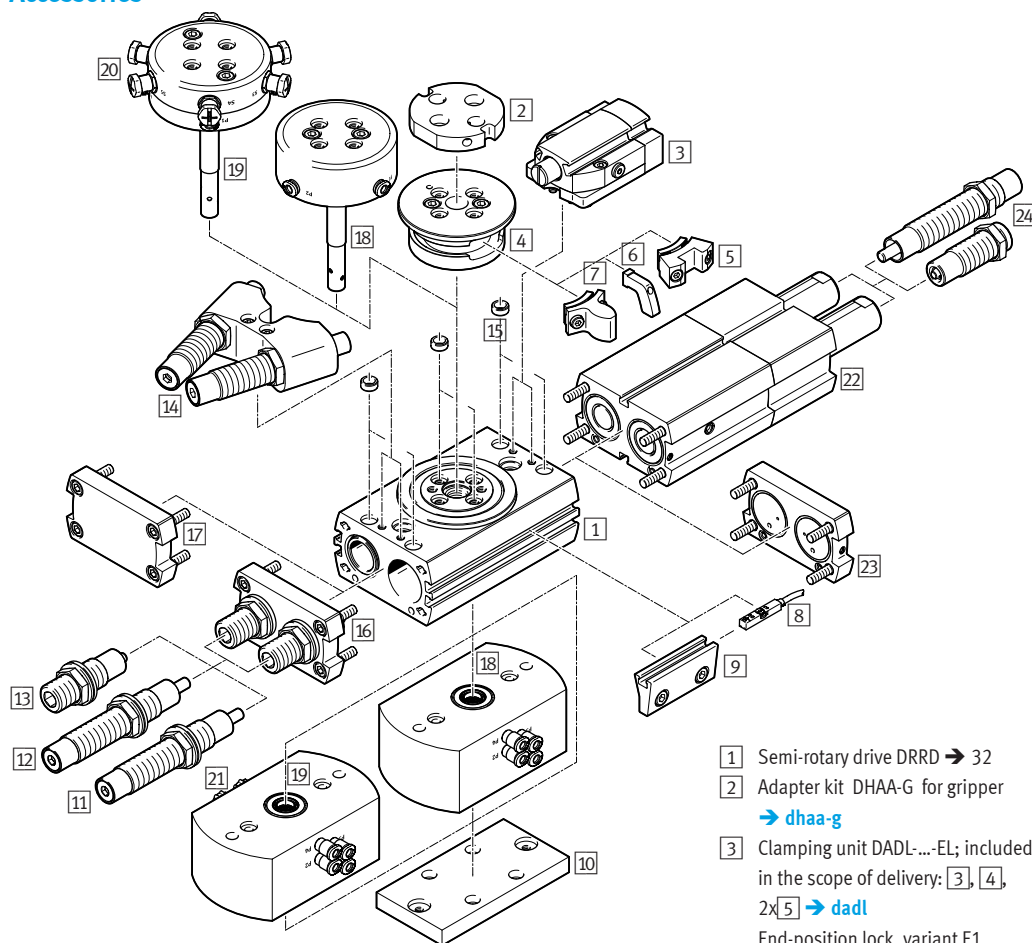
FESTO

Ordering data – Basic design

Size	Type	Part No.
16	DRRD-16-180-FH-PA	1577238
	DRRD-16-180-FH-Y9A	1644389
20	DRRD-20-180-FH-PA	1395606
	DRRD-20-180-FH-Y9A	1427379
25	DRRD-25-180-FH-PA	1359980
	DRRD-25-180-FH-Y9A	1360248

Size	Type	Part No.
32	DRRD-32-180-FH-PA	1578512
	DRRD-32-180-FH-Y9A	1578518
35	DRRD-35-180-FH-PA	1526825
	DRRD-35-180-FH-Y9A	1547102
40	DRRD-40-180-FH-PA	1503269
	DRRD-40-180-FH-Y9A	1526986

Accessories



- [7] Stop element, variant Y12
- [8] Proximity sensor
SMT-/SME-8M → 33
Position transmitter SMAT-8M
→ [smat](#)
- [9] Sensing kit DASI-...-KT → [dasi](#)
Included in the scope of delivery:
[4], 2x[6], 2x[9]
Sensor mounting, variant R
- [10] Adapter kit DHAA-D for drives
→ [dhaa-d](#)
- [11] Shock absorbers, variant Y9
- [12] Shock absorber, hard, variant Y10
- [13] Shock absorber, variant P
- [14] Shock absorber, external, variant Y12;
included in the scope of delivery:
[4], 2x[7], [14]
- [15] Centring sleeve ZBH → [zbh](#)
- [16] End cap: in combination with elastic cushioning P or shock absorber Y9, Y10
- [17] End cap, in combination with external shock absorber Y12
- [18] Pneumatic energy throughfeed, variants P2, P4, P8
- [19] Pneumatic/electrical energy throughfeed, variants E2P2, P4E6, P8E8
- [20] Connecting cable NEBU to the proximity sensor → [nebu](#)
- [21] Connecting cable NEBU to the controller → [nebu](#)
- [22] Intermediate position, variant PS1
- [23] Connection cap for the supply ports
- [24] Shock absorber DYSC-Y1F → [dysc](#)

- [1] Semi-rotary drive DRRD → 32
- [2] Adapter kit DHAA-G for gripper
→ [dhaa-g](#)
- [3] Clamping unit DADL-...-EL; included in the scope of delivery: [3], [4], 2x[5] → [dadl](#)
- [4] Flange assembly required to mount components [5], [6] and [7]
- [5] Clamping component DADL-EC
→ [dadl](#)
- [6] Switch lug DASI-...-SL → [dasi](#)

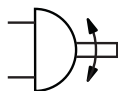
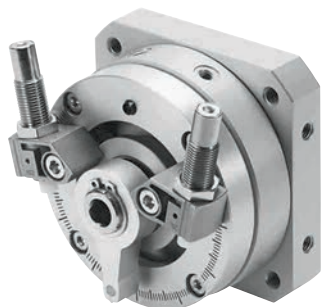
[8] Proximity sensor SME-8/SMT-8M, insertable in the slot lengthwise		
Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-8-K-LED-24	150855
Plug M8x1, 3-pin	SME-8-S-LED-24	150857
Magneto-resistive		
Cable, 2.5 m, 3-wire	SMT-8M-A-PS-24V-E-2,5-OE	574335
Plug M8x1, 3-pin	SMT-8M-A-PS-24V-E-0,3-M8D	574334

[8] Proximity sensor SME-8M, insertable in the slot from above		
Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-8M-DS-24V-K-2,5-OE	543862
Cable, 5 m, 3-wire	SME-8M-DS-24V-K-5,0-OE	543863
Plug M8x1, 3-pin	SME-8M-DS-24V-K-0,3-M8D	543861

Swivel modules DSM-B, double-acting

FESTO

1



- Swivel modules with minimum space requirement
- Swivel modules with tandem rotary vanes
- Simple basic and precision adjustment of the swivel angle
- High-performance cushioning
- Compact, low-cost sensing

Type codes – Basic design

		DSM	–		–	270	–		–		–	A	–	B
Type														
DSM	Swivel module													
Size														
		Max. swivel angle [°], adjustable												
12, 16, 25, 32, 40, 63	270													
Cushioning														
–	Without cushioning components													
P	Elastic cushioning components at both ends													
CC	Self-adjusting shock absorbers at both ends													
Shaft														
–	Spigot shaft													
FW	Flanged shaft													
Position sensing														
A	Via proximity sensor													
Variant														
B	B series													

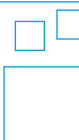
Variants

T Tandem rotary vanes

P1 Adjustable elastic cushioning components at both ends, with fixed stop

HD Heavy-duty bearing

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

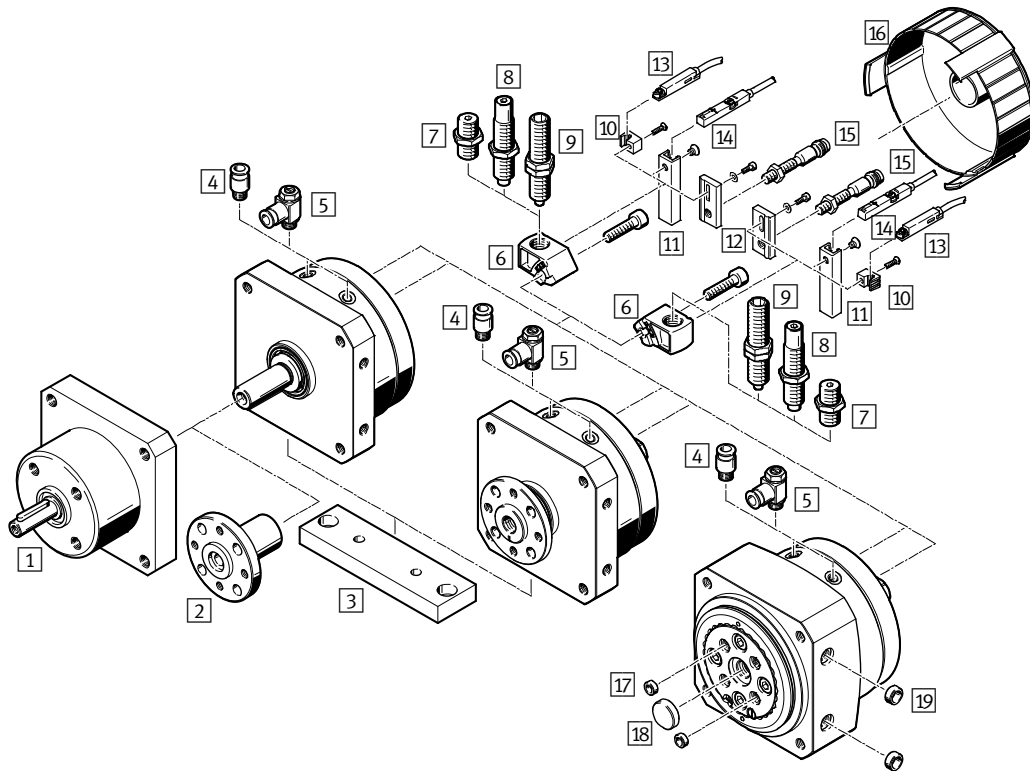
Enter the type or configuration part number in the search field.

Ordering data – Basic design

Cushioning – shaft	Swivel angle	Size					
		12	16	25	32	40	63
Without cushioning components – spigot shaft	270°	547591	547592	547593	547594	547595	552083
Without cushioning components – FW	270°	547596	547597	547598	547599	547600	552084
P – spigot shaft	270°	547570	547574	547578	547582	547586	552079
P – FW	270°	547571	547575	547579	547583	547587	552080
CC – spigot shaft	246° ¹⁾	547572	547576	547580	547584	547588	552081
CC – FW	246° ¹⁾	547573	547577	547581	547585	547589	552082

¹⁾ With sizes 40 and 63: swivel angle 240°

Accessories



- 1 Freewheel unit FLSM → [flsm](#)
- 2 Push-on flange FWSR → [fwsr](#)
- 3 Mounting plate HSM → [hsm](#)
- 4 Push-in fitting QS → 149
- 5 One-way flow control valve GRLA → 52
- 6 Cushioning mount DSM-...-B → [dsm-12-b](#)
- 7 Cushioning kit DSM-...-P-B (P cushioning) → [dsm-12-p-b](#)
- 8 Shock absorber DYSC (CC cushioning) → [dysc](#)
- 9 Shock absorber DYEF (P1 cushioning) → [dyef](#)
- 10 Sensor bracket SL-DSM-B → 35
- 11 Sensor bracket SL-DSM-63-B → 35
- 12 Sensor bracket SL-DSM-S → 35
- 13 Proximity sensor SME-10 → 35
SME-/SMT-10M → 35
- 14 Proximity sensor SME-8/SMT-8M → 35
- 15 Inductive proximity sensor SIEN → 35
- 16 Cover cap AKM → 35
- 17 Centring sleeve ZBH for centring attachments on the rotating plate → [zbh](#)
- 18 Centring sleeve/disc ZBH/SLZZ → [zbh, slzz](#)
- 19 Centring sleeve ZBH for centring the drive → [zbh](#)

10 / 11 / 12 Sensor bracket

For size	Type	Part No.
12, 16, 25, 32, 40	SL-DSM-B ¹⁾	550661
63	SL-DSM-63-B ²⁾	552088
12, 16, 25, 32, 40	SL-DSM-S-M5-B ³⁾	1130882
12, 16, 25, 32, 40	SL-DSM-S-M8-B ⁴⁾	1132360

- 1) For proximity sensors SME-/SMT-10.
- 2) For proximity sensors SME-/SMT-8.
- 3) For inductive proximity sensors SIEN-M5.
- 4) For inductive proximity sensors SIEN-M8.

13 Proximity sensor SME-10, magnetic reed

Description	Type	Part No.
Cable, 2.5 m, 3-wire	SME-10-KL-LED-24	173210
Plug M8x1, 3-pin	SME-10-SL-LED-24	173212

13 Proximity sensor SME-/SMT-10M

Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-10M-DS-24V-E-2,5-L-OE	551365
Plug M8x1, 3-pin	SME-10M-DS-24V-E-0,3-L-M8D	551367
Magneto-resistive		
Cable, 2.5 m, 3-wire	SMT-10M-PS-24V-E-2,5-L-OE	551373
Plug M8x1, 3-pin	SMT-10M-PS-24V-E-0,3-L-M8D	551375

14 Proximity sensor SME-8/SMT-8M, insertable in the slot lengthwise

Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-8-K-LED-24	150855
Plug M8x1, 3-pin	SME-8-S-LED-24	150857
Magneto-resistive		
Cable, 2.5 m, 3-wire	SMT-8M-A-PS-24V-E-2,5-OE	574335
Plug M8x1, 3-pin	SMT-8M-A-PS-24V-E-0,3-M8D	574334

14 Proximity sensor SME-8M, insertable in the slot from above

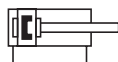
Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-8M-DS-24V-K-2,5-OE	543862
Cable, 5 m, 3-wire	SME-8M-DS-24V-K-5,0-OE	543863
Plug M8x1, 3-pin	SME-8M-DS-24V-K-0,3-M8D	543861

15 Inductive proximity sensor SIEN

Description	Type	Part No.
N/O contact, M5, PNP, cable, 2.5 m	SIEN-M5B-PS-K-L	150370
N/O contact, M5, PNP, plug	SIEN-M5B-PS-S-L	150371
N/O contact, M8, PNP, cable, 2.5 m	SIEN-M8B-PS-K-L	150386
N/O contact, M8, PNP, plug	SIEN-M8B-PS-S-L	150387

16 Cover cap AKM

For size	Type	Part No.
12	AKM-12	549194
16	AKM-16	549195
25	AKM-25	549196
32	AKM-32	549197
40	AKM-40	549198



- High load carrying ability and positioning accuracy
- Maximum flexibility thanks to eight sizes
- Guided unit with very precise linearity and parallelism
- Simple basic setting plus precision final adjustment of the end positions

Diagram illustrating the structure of a DGS (Dietary Guidelines System) for a specific population, showing the flow from the DGS to the A (Assessment) box.

The diagram is organized into columns. The first column contains a box labeled "DGS". The second column contains a box labeled "A". The third column contains a box labeled "DGS". The fourth column contains a box labeled "A". The fifth column contains a box labeled "DGS". The sixth column contains a box labeled "A". The seventh column contains a box labeled "DGS". The eighth column contains a box labeled "A". The ninth column contains a box labeled "DGS". The tenth column contains a box labeled "A".

The diagram shows the flow of information from the "DGS" box to the "A" box, with various intermediate boxes and lines indicating the structure of the system.

N	NPT thread	P1	Elastic cushioning, with metal	Y3	Progressive shock absorbers, at	E	Elastic cushioning, without metal
C	Clamping unit		end stop, at both ends		both ends		end stop, at both ends, short
E3	End-position locking						design

Configurable
product

This product and all its variants can be ordered using the configurator.

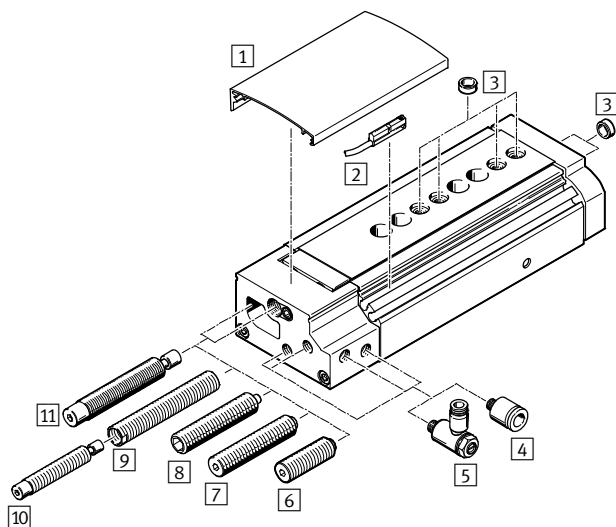
The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Stroke [mm]	Size											
	4	6	8	10	12	16	20	25	16	20	25	
	Cushioning								Cushioning			
	P	P	P	P	P	P	P	P	Y3	Y3	Y3	
10	543910	543916	543926	543942	543961	543983	544005	544030				
20	543911	543917	543927	543943	543962	543984	544006	544031				
30	543912	543918	543928	543944	543963	543985	544007	544032				
40		543919	543929	543945	543964				544000	544024	544049	
50		543920	543930	543946	543965				544001	544025	544050	
80		543931		543947	543966				544002	544026	544051	
100		543948			543967				544003	544027	544052	
150									544004	544028	544053	
200											544054	

Accessories



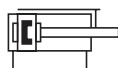
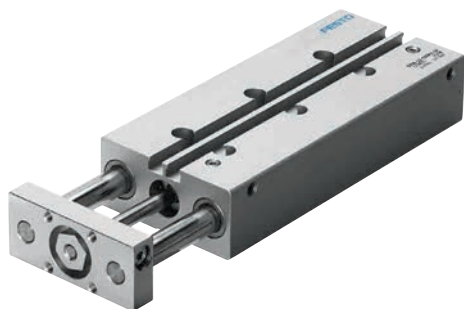
- 1 Cover DADS → [dads](#)
- 2 Proximity sensor SME-/SMT-10M → [sme-10](#)
- 3 Centring sleeve ZBH → 37
- 4 Push-in fitting QSM → 156
- 5 One-way flow control valve GRLA → 52
- 6 Cushioning E → [dgsl](#)
- 7 Cushioning P → 36
- 8 Cushioning with stop P1 → [dgsl](#)
- 9 Reducing sleeve DAYH → [dayh](#)
- 10 Shock absorber DYSW → [dysw](#)
- 11 Cushioning with shock absorber Y3 → 36

3 Centring sleeve ZBH		
For	Type	Part No.
4, 6	ZBH-5	189652
8, 10, 12, 16	ZBH-7	186717
20, 25	ZBH-9	150927

Guided drives DFM, double-acting

FESTO

1



- Sturdy and precise
- With plain-bearing guide
- High resistance to torques and lateral forces
- Wide range of applications

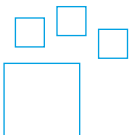
Type codes – Basic design

Type		DFM	–		–		–	P	–	A	–	GF
DFM	Guided drive											
Piston Ø [mm]												
Stroke [mm]												
12, 16	10, 20, 25, 30, 40, 50, 80, 100											
20, 25	20, 25, 30, 40, 50, 80, 100											
32	20, 25, 30, 40, 50, 80, 100, 125, 160, 200											
40, 50, 63, 80, 100	25, 50, 80, 100, 125, 160, 200											
Cushioning												
P	Elastic cushioning rings/pads at both ends											
Position sensing												
A	Via proximity sensor											
Guide												
GF	Plain-bearing guide											

Variants

KF Recirculating ball bearing guide 10 ... 200 mm Variable stroke

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

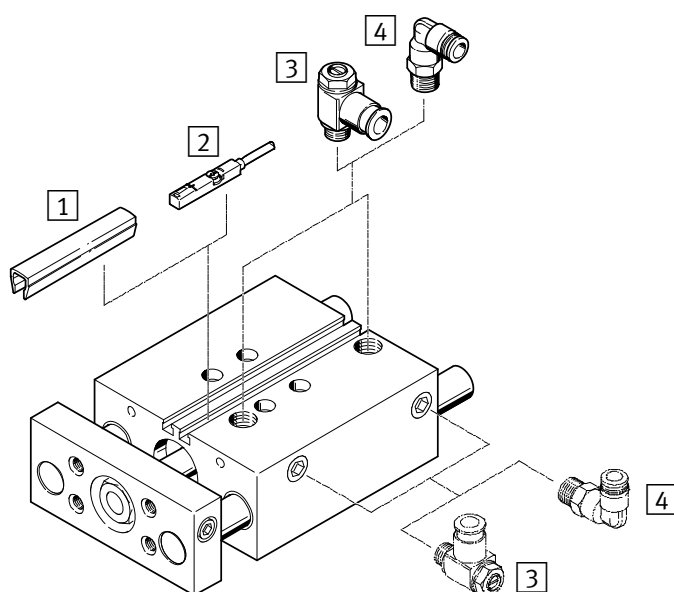
The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

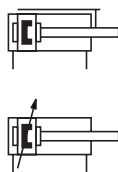
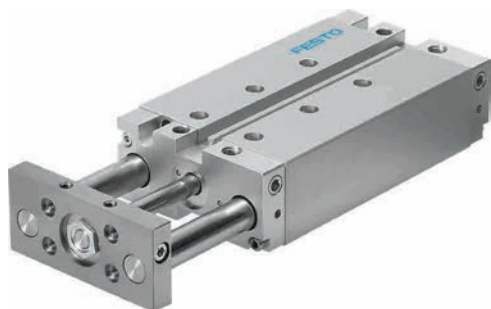
Ordering data – Basic design

Stroke [mm]	Piston Ø [mm]									
	12	16	20	25	32	40	50	63	80	100
	Cushioning – position sensing – guide									
	P – A – GF	P – A – GF	P – A – GF	P – A – GF	P – A – GF	P – A – GF	P – A – GF	P – A – GF	P – A – GF	P – A – GF
10	170824	170832								
20	170825	170833	170840	170847	170854					
25	170826	170834	170841	170848	170855	170864	170871	170878	170885	170892
30	170827	170835	170842	170849	170856					
40	170828	170836	170843	170850	170857					
50	170829	170837	170844	170851	170858	170865	170872	170879	170886	170893
80	170830	170838	170845	170852	170859	170866	170873	170880	170887	170894
100	170831	170839	170846	170853	170860	170867	170874	170881	170888	170895
125					170861	170868	170875	170882	170889	170896
160					170862	170869	170876	170883	170890	170897
200					170863	170870	170877	170884	170891	170898

Accessories



- 1 Slot cover ABP-5-S → [abp-5-s](#)
- 2 Proximity sensor SME-/SMT-8M
→ 113,
SME-/SMT-8 → [sme-8](#)
- 3 One-way flow control valve GRLA
→ 52
- 4 Push-in fitting QS → 149



- Sturdy and precise
- With plain-bearing or recirculating ball bearing guide
- High resistance to torques and lateral forces
- Precision stroke adjustment in the end positions
- Pneumatic and hydraulic cushioning variants for shorter cycle times
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

DFM

B

A

Type

DFM

Guided drive

Piston Ø [mm]

Stroke [mm]

12, 16

10, 20, 25, 30, 40, 50, 80, 100, 125, 160, 200

10 ... 200

1

Generation

B

B series

Cushioning

P

Elastic cushioning rings/pads at both ends

PPV

Pneumatic cushioning, adjustable at both ends

2

YSRW

Self-adjusting, progressive shock absorbers

3

Position sensing

A

Via proximity sensor

Guide

GF

Plain-bearing guide

4

KF

Recirculating ball bearing guide

Variant

S6

Heat-resistant seals up to max. 120 °C

5

Precision adjustment

AJ

Advanced end position

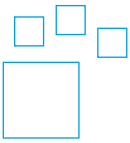
EJ

Retracted end position

3

- 1 Not with cushioning YSRW, precision adjustment AJ.
- 2 Not with piston $\varnothing$ 12 mm, precision adjustment AJ, EJ.
- 3 Not with piston $\varnothing$ 12 and 16 mm, precision adjustment AJ, EJ.
- 4 Not with cushioning YSRW.
- 5 Not with recirculating ball bearing guide KF, precision adjustment AJ, EJ.

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

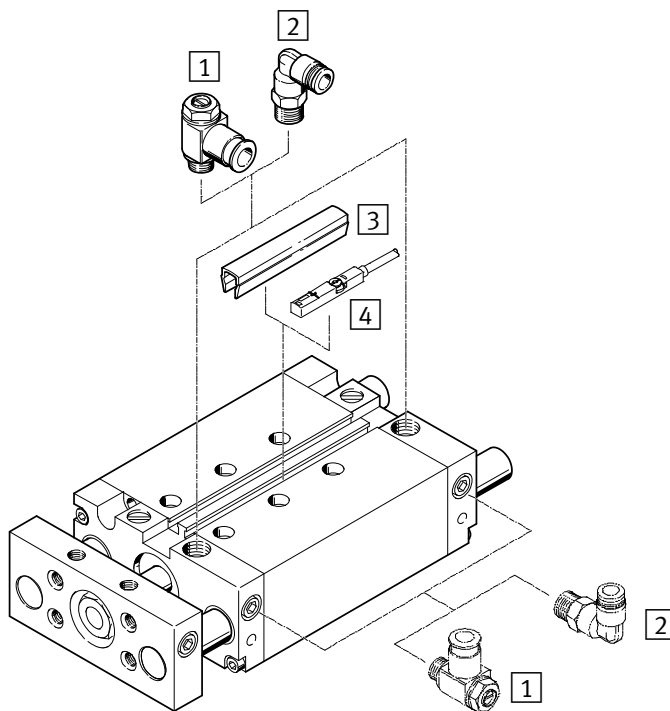
The configurator can be found on the DVD under Products or at
 → www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

1

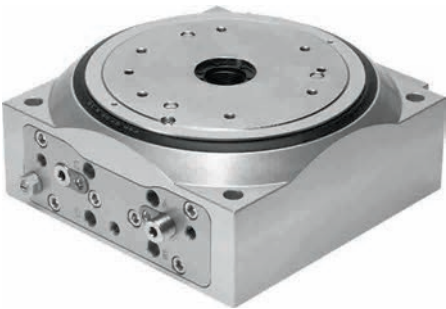
Configuration part no.		
Ø	Type	Part No.
12	DFM-12-...-B	529119
16	DFM-16-...-B	529120
20	DFM-20-...-B	532316
25	DFM-25-...-B	532317
32	DFM-32-...-B	532318
40	DFM-40-...-B	532319
50	DFM-50-...-B	534769
63	DFM-63-...-B	534770

Accessories



- 1 One-way flow control valve GRLA
→ 52
- 2 Push-in fitting QS → 149
- 3 Slot cover ABP-5-S → [abp-5-s](#)
- 4 Proximity sensor SME-/SMT-8M
→ 113,
SME-/SMT-8 → [sme-8](#)

1



- Flexible areas of application thanks to clockwise/anti-clockwise rotation or reciprocating motion
- Sturdy mechanical system with overload protection
- Stationary middle section with through-hole for fast installation of cables and tubing

Type codes – Basic design

DHTG

A

Type

DHTG

Rotary indexing table

Size

Indexing stations

65, 90

2, 3, 4, 6, 8, 12, 24

140, 220

3, 4, 6, 8, 12, 24

Position sensing

A

Via proximity sensor

Ordering data – Variants

Configurable product

This product and all its variants can be ordered using the configurator.

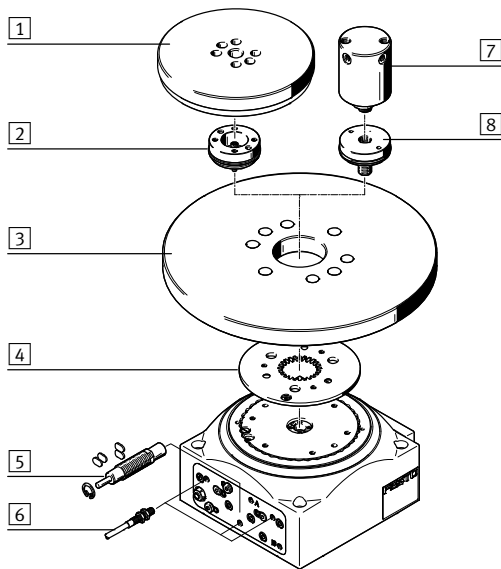
The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Indexing stations	Size			
	65	90	140	220
2	548076	548082		
3	555448	555449	555450	555451
4	548077	548083	548088	548093
6	548078	548084	548089	548094
8	548079	548085	548090	548095
12	548080	548086	548091	548096
24	548081	548087	548092	548097

Accessories



- 1 Unmachined plate, fixed
DADG-UPF¹⁾
- 2 Adapter kit DADG-AK → 43
- 3 Unmachined plate, rotating
DADG-UPT¹⁾
- 4 Indexing conversion kit DADM-CK
→ [dadm-ck](#)
- 5 Reciprocating motion kit
DADM-TK → 43
- 6 Inductive proximity sensor SIEN
→ 43
- 7 Rotary distributor GF → 43
- 8 Adapter kit
DADG-AK- ...-...G... → [dadg-ak](#)

1) You can order unmachined plates with a standard hole pattern or individual interface via your local Festo contact.

2 Adapter kit DADG-AK

For size	Type	Part No.
65	DADG-AK-65	555424
90	DADG-AK-90	555425
140	DADG-AK-140	555426
220	DADG-AK-220	555427

5 Reciprocating motion kit DADM-TK

For size	Type	Part No.
65	DADM-TK-65	548120
90	DADM-TK-90	548121
140	DADM-TK-140	563304
220	DADM-TK-220	563305

6 Inductive proximity sensor SIEN

Description	Type	Part No.
N/O contact, M5, PNP, plug	SIEN-M5B-PS-S-L	150371
N/C contact, M5, PNP, plug	SIEN-M5B-PO-S-L	150375
N/O contact, M8, PNP, cable, 2.5 m	SIEN-M8B-PS-K-L	150386
N/O contact, M8, PNP, plug	SIEN-M8B-PS-S-L	150387
N/C contact, M8, PNP, cable, 2.5 m	SIEN-M8B-PO-K-L	150390
N/C contact, M8, PNP, plug	SIEN-M8B-PO-S-L	150391

7 Rotary distributor GF

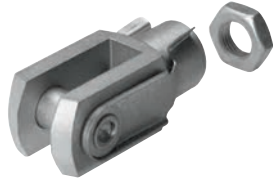
For size	Type	Part No.
Single		
65, 90	GF-1/8-M5	539290
140	GF-1/4-1/8	539291
220	GF-1/2-1/4	539292
Multiple		
220	GF-1/8-2	539287

Mounting attachments for drives

Piston rod attachments

- Rod clevises SG
- Rod eyes SGS
- Self-aligning rod couplers FK
- Rod clevis SGA

→ 46

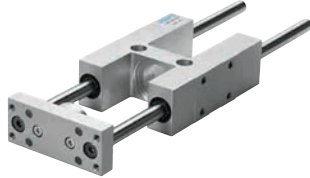


Linear guides

Guide units FEN/FENG, for standard cylinders

- For standard cylinders
- Protection against rotation at high torque loads

→ 47



Shut-off valves

Non-return valves VBNF

- Piloted non-return function
- Flat design
- Can be rotated horizontally through 360° in assembled state
- High flow rate

→ 49



Non-return valves HGL

- Controlled
- Piloted non-return function
- Compact design

→ 50



Flow control valves

One-way flow control valves VFOF

- Minimal height
- High flow rate
- Can be rotated horizontally through 360° in assembled state
- Function combination with piloted non-return function

→ 51



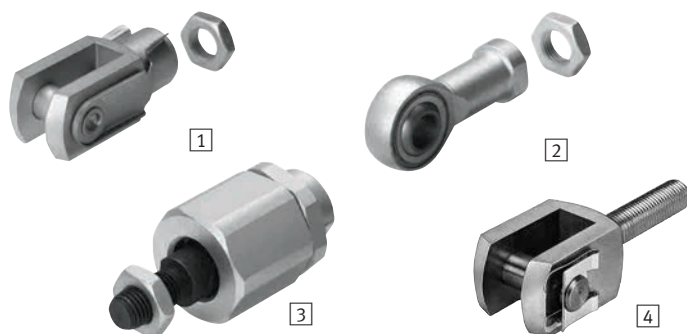
One-way flow control valves GRLA/GRLZ

- GRLA-QS-D/GRLZ-QS-D: with slotted head screw
- GRLA-QS-RS-D: with knurled screw
- GRLSA: rotary knob with scale, internal hex

→ 52



Piston rod attachments



- Coordinated with Festo's cylinder range
- Versatile combinations
- Sturdy and functional

- 1 Rod clevis SG: permits a swivelling movement of the cylinder in one plane
- 2 Rod eye SGS: with spherical bearing
- 3 Self-aligning rod coupler FK: for compensating radial and angular deviations
- 4 Rod clevis SGA: in combination with rod eye SGS for spherical mounting of cylinders

Type codes

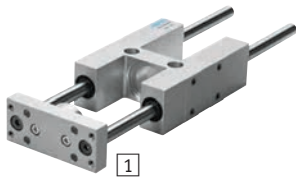
Type	
SG	Rod clevis
SGS	Rod eye
FK	Self-aligning rod coupler
SGA	Rod clevis

Piston rod thread	
M4	Male thread
M6	
M8	
M10x1.25	
M12x1.25	
M16x1.5	
M20x1.5	
M27x2	

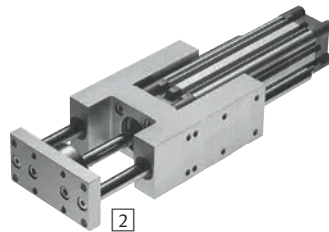
Ordering data

For cylinder	Piston Ø [mm]	Piston rod thread	Type SG	SGS	FK	SGA
DSNU	8	M4	6532	9253	6528	
DSNU	10	M4	6532	9253	6528	
DSNU	12	M6	3110	9254	2061	
DSNU	16	M6	3110	9254	2061	
DSNU	20	M8	3111	9255	2062	
DSNU	25	M10x1.25	6144	9261	6140	32954
DSBC/DNCE	32	M10x1.25	6144	9261	6140	32954
DSBC/DNCE	40	M12x1.25	6145	9262	6141	10767
DSBC	50	M16x1.5	6146	9263	6142	10768
DSBC/DNCE	63	M16x1.5	6146	9263	6142	10768
DSBC	80	M20x1.5	6147	9264	6143	10769
DSBC	100	M20x1.5	6147	9264	6143	10769

Guide units FEN/FENG, for standard cylinders



1



2

- High guide precision
- Protection against rotation at high torque loads
- Plain-bearing or recirculating ball bearing guide

- 1 FEN-KF with recirculating ball bearing guide
- 2 FENG with standard cylinder DSBC

2

Type codes

Type				
FEN	Guide unit for variable strokes for piston Ø 8 ... 25 mm			
FENG	Guide unit for fixed and variable strokes for piston Ø 32 ... 100 mm			

For piston Ø [mm]		
	Fixed stroke [mm]	Variable stroke [mm]
8, 10		1 ... 100
12, 16		1 ... 200
20, 25		2 ... 250
32, 40, 50, 63, 80, 100	50, 100, 160, 200, 250, 320, 400, 500	10 ... 500

Guide	
–	Plain-bearing guide
KF	Recirculating ball bearing guide

Guide units FEN/FENG, for standard cylinders

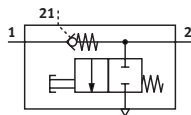
Ordering data

For standard cylinder DSNU					
For piston Ø [mm]	Variable stroke [mm]	With plain-bearing guide		With recirculating ball bearing guide	
		Part No.	Type	Part No.	Type
8, 10	1 ... 100	35196	FEN-8/10-...	35197	FEN-8/10-...-KF
12, 16	1 ... 200	19168	FEN-12/16-...	33481	FEN-12/16-...-KF
20	2 ... 250	19169	FEN-20-...	33482	FEN-20-...-KF
25	2 ... 250	19170	FEN-25-...	33483	FEN-25-...-KF

For standard cylinder DSBC					
For piston Ø [mm]	Variable stroke [mm]	With plain-bearing guide		With recirculating ball bearing guide	
		Part No.	Type	Part No.	Type
32	10 ... 500	34481	FENG-32-...	34487	FENG-32-...-KF
40		34482	FENG-40-...	34488	FENG-40-...-KF
50		34483	FENG-50-...	34489	FENG-50-...-KF
63		34484	FENG-63-...	34490	FENG-63-...-KF
80		34485	FENG-80-...	34491	FENG-80-...-KF
100		34486	FENG-100-...	34492	FENG-100-...-KF

For standard cylinder DSBC								
For piston Ø [mm]	With recirculating ball bearing guide							
	Part No.	Type	Part No.	Type	Part No.	Type	Part No.	Type
	Fixed stroke							
	50 mm		100 mm		160 mm		200 mm	
32	34493	FENG-32-50-KF	34494	FENG-32-100-KF	34495	FENG-32-160-KF	34496	FENG-32-200-KF
40	34499	FENG-40-50-KF	34500	FENG-40-100-KF	34501	FENG-40-160-KF	34502	FENG-40-200-KF
50	34506	FENG-50-50-KF	34507	FENG-50-100-KF	34508	FENG-50-160-KF	34509	FENG-50-200-KF
63	34513	FENG-63-50-KF	34514	FENG-63-100-KF	34515	FENG-63-160-KF	34516	FENG-63-200-KF
80	34521	FENG-80-50-KF	34522	FENG-80-100-KF	34523	FENG-80-160-KF	34524	FENG-80-200-KF
100	34529	FENG-100-50-KF	34530	FENG-100-100-KF	34531	FENG-100-160-KF	34532	FENG-100-200-KF
	Fixed stroke							
	250 mm		320 mm		400 mm		500 mm	
32	150289	FENG-32-250-KF	34497	FENG-32-320-KF	150290	FENG-32-400-KF	34498	FENG-32-500-KF
40	34503	FENG-40-250-KF	34504	FENG-40-320-KF	150291	FENG-40-400-KF	34505	FENG-40-500-KF
50	34510	FENG-50-250-KF	34511	FENG-50-320-KF	150292	FENG-50-400-KF	34512	FENG-50-500-KF
63	34517	FENG-63-250-KF	34518	FENG-63-320-KF	34519	FENG-63-400-KF	34520	FENG-63-500-KF
80	34525	FENG-80-250-KF	34526	FENG-80-320-KF	34527	FENG-80-400-KF	34528	FENG-80-500-KF
100	34533	FENG-100-250-KF	34534	FENG-100-320-KF	34535	FENG-100-400-KF	34536	FENG-100-500-KF

Non-return valves VBNF



- Piloted non-return function
- Flat design
- Can be rotated horizontally through 360° in assembled state
- Flow rate 260 ... 620 l/min

2

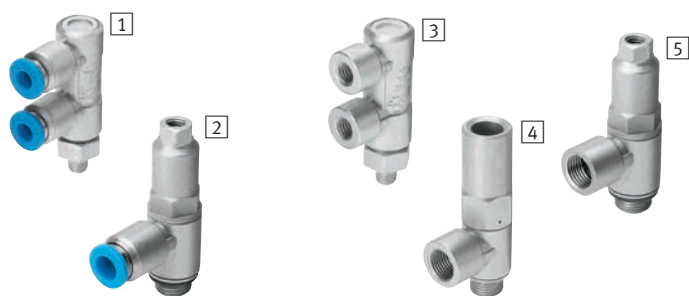
Type codes

		VBNF	L	BA	—	—
Type						
VBNF	Non-return valve, flat design					
Design						
L	L-shaped outlet					
Additional function						
BA	Piloted non-return function, manual exhaust function					
Pneumatic connection 2						
G18	Thread G1/8					
G14	Thread G1/4					
Pneumatic connection 1						
Q6	Push-in connector QS-6					
Q8	Push-in connector QS-8					

Ordering data

Non-return valve VBNF	
Type	Part No.
VBNF-LBA-G18-Q6	8001460
VBNF-LBA-G14-Q8	1927027

Non-return valves HGL



- Controlled, piloted non-return function
- Manual exhausting
- Rotatable when installed
- Push-in connector
Flow rate 130 ... 1,400 l/min
- Female thread
Flow rate 130 ... 1,600 l/min

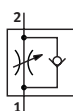
- 1** HGL-M5-QS-4
- 2** HGL-...-QS
- 3** HGL-M5-B
- 4** HGL-1/8-1/8-B
- 5** HGL-...-B

Type codes

		HGL	-		-		-	
Type								
Piloted non-return function								
HGL	Non-return valve, piloted							
Pneumatic connection 2								
M5	Male thread M5							
1/8	Male thread G $\frac{1}{8}$							
1/4	Male thread G $\frac{1}{4}$							
3/8	Male thread G $\frac{3}{8}$							
1/2	Male thread G $\frac{1}{2}$							
Pneumatic connection 1								
QS-4	Push-in connector for tubing O.D. 4 mm							
QS-6	Push-in connector for tubing O.D. 6 mm							
QS-8	Push-in connector for tubing O.D. 8 mm							
QS-10	Push-in connector for tubing O.D. 10 mm							
QS-12	Push-in connector for tubing O.D. 12 mm							
-	Connection size as for connection 2, female thread							
1/8	Female thread G $\frac{1}{8}$							
Generation								
B	B series							

Ordering data

HGL with push-in connector QS		HGL with female thread	
Type	Part No.	Type	Part No.
HGL-M5-QS-4	530038	HGL-M5-B	530029
HGL-1/8-QS-6	530039	HGL-1/8-B	530030
HGL-1/8-QS-8	530040	HGL-1/8-1/8-B	543253
HGL-1/4-QS-8	530041	HGL-1/4-B	530031
HGL-1/4-QS-10	530042	HGL-3/8-B	530032
HGL-3/8-QS-8	530043	HGL-1/2-B	530033
HGL-3/8-QS-10	530044		
HGL-3/8-QS-12	530045		



- Exhaust air one-way flow control function
- Minimal height
- Can be rotated horizontally through 360° in assembled state
- Greater functionality thanks to function combinations
- Flow rate:
One-way flow control valve, standard
250 ... 650 l/min
Flow rate function combination
240 ... 590 l/min

2

Type codes

		VFOF	-	L	E	-		H	-		-	
Type												
VFOF	One-way flow control valve, flat design											
Design												
L	L-shaped outlet											
Valve function												
E	Exhaust air one-way flow control function											
Additional function – Function combination												
BA	Piloted non-return function, manual exhaust function											
Adjusting element												
H	Internal hex											
Pneumatic connection 2												
G18	Thread G1/8											
G14	Thread G1/4											
Pneumatic connection 1												
Q6	Push-in connector QS-6											
Q8	Push-in connector QS-8											

Ordering data

One-way flow control valve VFOF, standard	
Type	Part No.
VFOF-LE-H-G18-Q6	1526931
VFOF-LE-H-G14-Q8	1505391

One-way flow control valve VFOF, function combination	
Type	Part No.
VFOF-LE-BAH-G18-Q6	8001459
VFOF-LE-BAH-G14-Q8	1927030

One-way flow control valves GRLA/GRLZ



1



3



2

- Sturdy metal design
- Can be swivelled 360° around the screw-in axis after mounting
- Push-in connector
- Flow rate 100 ... 1,580 l/min

- 1 GRLA-QS-D/GRLZ-QS-D: with slotted head screw
- 2 GRLA-QS-RS-D: with knurled screw
- 3 GRLSA: rotary knob with scale, internal hex

Type codes

							D
Type							
Exhaust air one-way flow control function							
GRLA	One-way flow control valve, elbow outlet						
GRLSA	One-way flow control valve, elbow outlet with rotary knob						
Supply air one-way flow control function							
GRLZ	One-way flow control valve, elbow outlet						
Pneumatic connection 2							
M5, 1/8, 1/4, 3/8, 1/2	Male thread						
Pneumatic connection 1							
Connection type							
QS	Push-in connector QS						
Tubing O.D.							
3, 4, 6, 8, 10, 12	Tubing O.D. with push-in connector QS						
Adjusting element							
–	Slotted head screw						
RS	Knurled screw						
Flow rate characteristic							
MF	Medium flow						
Generation							
D	D series						

Ordering data

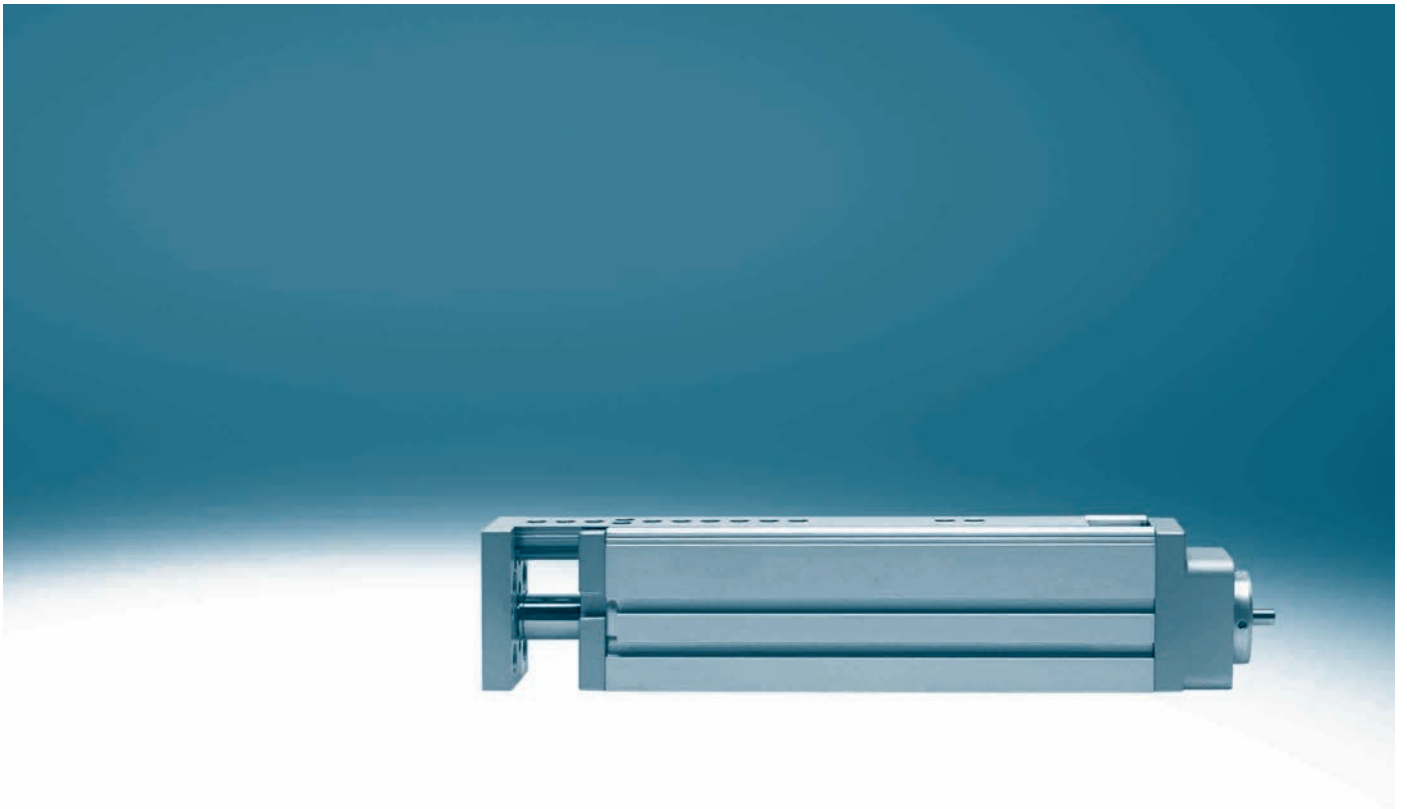
GRLA: with slotted head screw	
Type	Part No.
GRLA-M5-QS-3-D	193137
GRLA-M5-QS-4-D	193138
GRLA-M5-QS-6-D	193139
GRLA-1/8-QS-3-D	193142
GRLA-1/8-QS-4-D	193143
GRLA-1/8-QS-6-D	193144
GRLA-1/8-QS-8-D	193145
GRLA-1/4-QS-6-D	193146
GRLA-1/4-QS-8-D	193147
GRLA-1/4-QS-10-D	193148
GRLA-3/8-QS-6-D	193149
GRLA-3/8-QS-8-D	193150
GRLA-3/8-QS-10-D	193151
GRLA-1/2-QS-12-D	193152

GRLA: with slotted head screw, medium flow	
Type	Part No.
GRLA-1/8-QS-6-MF-D	537075
GRLA-1/8-QS-8-MF-D	537076

GRLZ: with slotted head screw	
Type	Part No.
GRLZ-M5-QS-3-D	193153
GRLZ-M5-QS-4-D	193154
GRLZ-M5-QS-6-D	193155
GRLZ-1/8-QS-3-D	193156
GRLZ-1/8-QS-4-D	193157
GRLZ-1/8-QS-6-D	193158
GRLZ-1/8-QS-8-D	193159

GRLA-RS: with knurled screw	
Type	Part No.
GRLA-M5-QS-3-RS-D	197576
GRLA-M5-QS-4-RS-D	197577
GRLA-M5-QS-6-RS-D	197578
GRLA-1/8-QS-3-RS-D	197579
GRLA-1/8-QS-4-RS-D	197580
GRLA-1/8-QS-6-RS-D	197581
GRLA-1/8-QS-8-RS-D	534337
GRLA-1/4-QS-6-RS-D	534338
GRLA-1/4-QS-8-RS-D	534339
GRLA-1/4-QS-10-RS-D	534340
GRLA-3/8-QS-6-RS-D	534341
GRLA-3/8-QS-8-RS-D	534342
GRLA-3/8-QS-10-RS-D	534343
GRLA-3/8-QS-12-RS-D	534344

GRLSA-D: with rotary knob and slotted head screw	
Type	Part No.
GRLSA-1/8-QS-6	540661
GRLSA-1/8-QS-8	540662



Linear drives

Electric cylinders DNCE, with spindle drive

- Ball screw for high dynamic response
- Self-retarding lead screw
- Parallel or axial motor attachment

→ 55



Electric cylinder EPCO, with spindle drive

- Motor attachment variants: top, bottom, left, right
- Suitable for simple applications in factory automation
- Extensive mounting accessories for various installation situations

→ 59



Toothed belt axis EGC-TB-KF, with recirculating ball bearing guide

- High speeds and feed forces
- Recirculating ball bearing guide and rigid profile
- High loads and torques
- Flexible motor attachment

→ 62



Spindle axis EGC-BS-KF, with recirculating ball bearing guide

- Precise, high feed forces
- Recirculating ball bearing guide and rigid profile
- High loads and torques
- Flexible motor attachment

→ 65



Toothed belt axis ELGR

- Ready-to-install unit for quick and easy design
- Highly reliable
- Motor can be mounted on any one of 4 sides

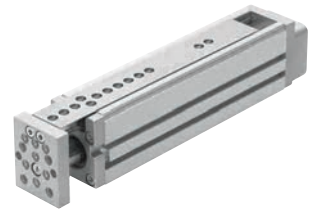
→ 68

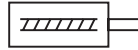


Mini slide EGSL, electric

- High precision, load carrying ability and dynamic response in a compact space
- Optional homing to the fixed stop or reference switch
- Ideal for vertical applications

→ [egsl](#)





- Electromechanical linear axis with piston rod
- Linear drive with lead screw or ball screw
- Axial or parallel (U-shaped) motor mounting
- Compatible with extensive range of accessories for standard cylinder DSBC

Type codes – Basic design

DNCE		-		-		-		-		-	Q
------	--	---	--	---	--	---	--	---	--	---	---

Type	
DNCE	Electromechanical linear axis

Size	
	Stroke [mm]
32	100, 200, 300, 400
40	100, 200, 300, 400, 600
63	100, 200, 300, 400, 600, 800

Drive function	
	Spindle pitch [mm]
LS ¹⁾	"1.5"P
	"2.5"P
	"4"P
BS ²⁾	"3"P, "10"P
	"5"P, "12.7"P
	"10"P, "20"P

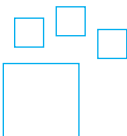
1) LS = Lead screw
 2) BS = Ball screw

Protection against rotation	
Q	Square piston rod

Variants

- K3 Female piston rod thread K8 Extended piston rod

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
 → www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Electric cylinders DNCE, with spindle drive

FESTO

Ordering data – Basic design

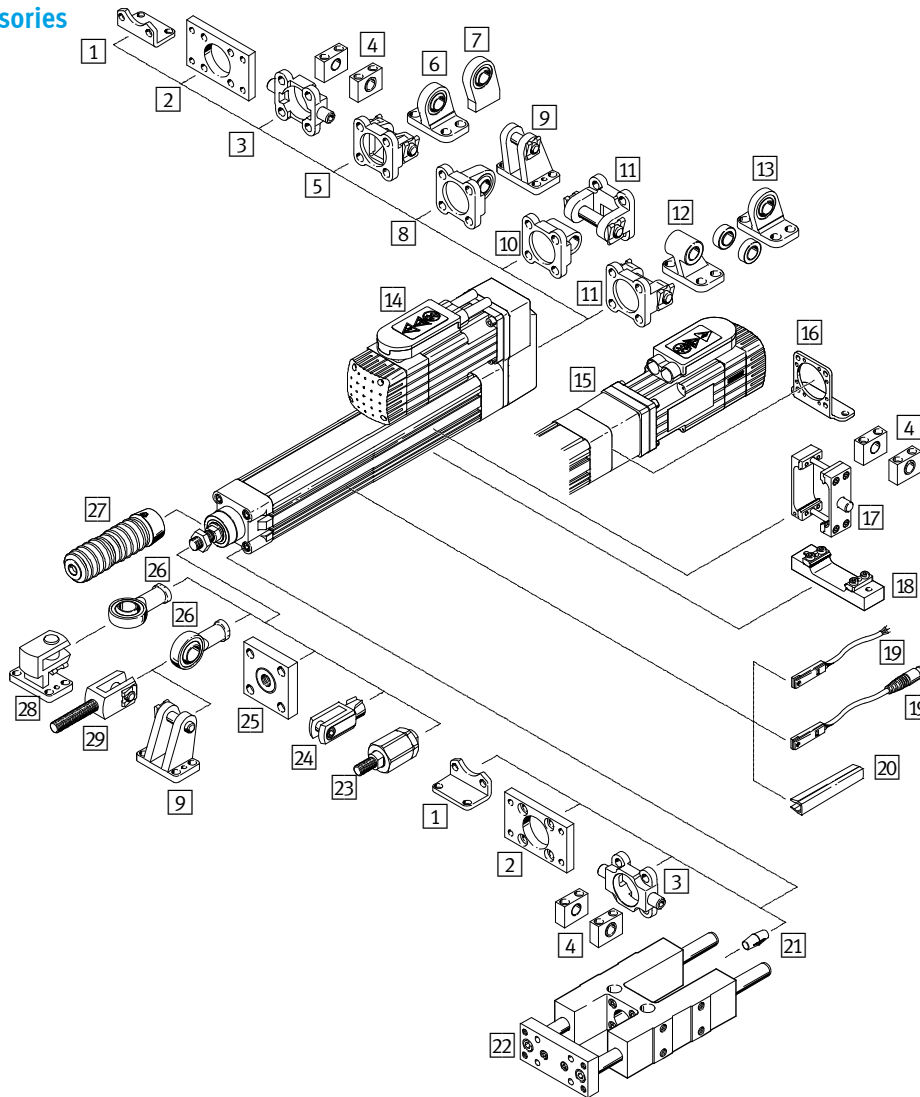
Stroke [mm]	DNCE-32					
	Lead screw with spindle pitch 1.5 mm		Ball screw with spindle pitch 3 mm		Ball screw with spindle pitch 10 mm	
	Type	Part No.	Type	Part No.	Type	Part No.
100	DNCE-32-100-LS-"1,5"P-Q	543111	DNCE-32-100-BS-"3"P-Q	543115	DNCE-32-100-BS-"10"P-Q	543119
200	DNCE-32-200-LS-"1,5"P-Q	543112	DNCE-32-200-BS-"3"P-Q	543116	DNCE-32-200-BS-"10"P-Q	543120
300	DNCE-32-300-LS-"1,5"P-Q	543113	DNCE-32-300-BS-"3"P-Q	543117	DNCE-32-300-BS-"10"P-Q	543121
400	DNCE-32-400-LS-"1,5"P-Q	543114	DNCE-32-400-BS-"3"P-Q	543118	DNCE-32-400-BS-"10"P-Q	543122

3

Stroke [mm]	DNCE-40					
	Lead screw with spindle pitch 2.5 mm		Ball screw with spindle pitch 5 mm		Ball screw with spindle pitch 12.7 mm	
	Type	Part No.	Type	Part No.	Type	Part No.
100	DNCE-40-100-LS-"2,5"P-Q	543123	DNCE-40-100-BS-"5"P-Q	543127	DNCE-40-100-BS-"12,7"P-Q	543131
200	DNCE-40-200-LS-"2,5"P-Q	543124	DNCE-40-200-BS-"5"P-Q	543128	DNCE-40-200-BS-"12,7"P-Q	543132
300	DNCE-40-300-LS-"2,5"P-Q	555465	DNCE-40-300-BS-"5"P-Q	555466	DNCE-40-300-BS-"12,7"P-Q	555467
400	DNCE-40-400-LS-"2,5"P-Q	543125	DNCE-40-400-BS-"5"P-Q	543129	DNCE-40-400-BS-"12,7"P-Q	543133
600	DNCE-40-600-LS-"2,5"P-Q	543126	DNCE-40-600-BS-"5"P-Q	543130	DNCE-40-600-BS-"12,7"P-Q	543134

Stroke [mm]	DNCE-63					
	Lead screw with spindle pitch 4 mm		Ball screw with spindle pitch 10 mm		Ball screw with spindle pitch 20 mm	
	Type	Part No.	Type	Part No.	Type	Part No.
100	DNCE-63-100-LS-"4"P-Q	555468	DNCE-63-100-BS-"10"P-Q	555470	DNCE-63-100-BS-"20"P-Q	555472
200	DNCE-63-200-LS-"4"P-Q	543135	DNCE-63-200-BS-"10"P-Q	543139	DNCE-63-200-BS-"20"P-Q	543143
300	DNCE-63-300-LS-"4"P-Q	555469	DNCE-63-300-BS-"10"P-Q	555471	DNCE-63-300-BS-"20"P-Q	555473
400	DNCE-63-400-LS-"4"P-Q	543136	DNCE-63-400-BS-"10"P-Q	543140	DNCE-63-400-BS-"20"P-Q	543144
600	DNCE-63-600-LS-"4"P-Q	543137	DNCE-63-600-BS-"10"P-Q	543141	DNCE-63-600-BS-"20"P-Q	543145
800	DNCE-63-800-LS-"4"P-Q	543138	DNCE-63-800-BS-"10"P-Q	543142	DNCE-63-800-BS-"20"P-Q	543146

Accessories



- 1 Foot mounting HNC → 18
- 2 Flange mounting FNC → 18
- 3 Trunnion flange ZNCF → 18
- 4 Trunnion support LN2G → 61
- 5 Swivel flange SNC → 57
- 6 Clevis foot LSNG → 57
- 7 Clevis foot LSNSG → 57
- 8 Swivel flange SNCS → 57
- 9 Clevis foot LBG → 57
- 10 Swivel flange SNCL → 61
- 11 Swivel flange SNCB → 57
- 12 Clevis foot LNG → 57
- 13 Clevis foot LSN → 57
- 14 Parallel kit EAMM-U/EAMM-U-S1 → 58
- 15 Axial kit EAMM-A/EAMM-A-S1 → 58
- 16 Foot mounting HNCE → 58
- 17 Trunnion mounting kit DAMT → 18
- 18 Profile mounting EAHF → 58
- 19 Proximity sensor
SME-8/SMT-8M/SME-8M → 58,
connecting cable NEBU → [nebu](#)
- 20 Slot cover ABP-5-S → [abp-5-s](#)
- 21 Compensating component EADC
→ [eadc](#)
- 22 Guide unit FENG → 47
- 23 Self-aligning rod coupler FK → 46
- 24 Rod clevis SG → 46
- 25 Coupling piece KSZ → 58
- 26 Rod eye SGS → 46
- 27 Protective bellows kit EADB → [eadb](#)
- 28 Right-angle clevis foot LQG → 18
- 29 Rod clevis SGA → 46

5 Swivel flange SNC

For size	Type	Part No.
32	SNC-32	174383
40	SNC-40	174384
63	SNC-63	174386

6 Clevis foot LSNG

For size	Type	Part No.
32	LSNG-32	31740
40	LSNG-40	31741
63	LSNG-63	31743

7 Clevis foot LSNSG

For size	Type	Part No.
32	LSNSG-32	31747
40	LSNSG-40	31748
63	LSNSG-63	31750

8 Swivel flange SNCS

For size	Type	Part No.
32	SNCS-32	174397
40	SNCS-40	174398
63	SNCS-63	174400

9 Clevis foot LBG

For size	Type	Part No.
32	LBG-32	31761
40	LBG-40	31762
63	LBG-63	31764

11 Swivel flange SNCB

For size	Type	Part No.
32	SNCB-32	174390
40	SNCB-40	174391
63	SNCB-63	174393

12 Clevis foot LNG

For size	Type	Part No.
32	LNG-32	33890
40	LNG-40	33891
63	LNG-63	33893

13 Clevis foot LSN

For size	Type	Part No.
32	LSN-32	5561
40	LSN-40	5562
63	LSN-63	5564

Electric cylinders DNCE, with spindle drive

FESTO

Accessories

14 Parallel kit EAMM-U

For size	Type	Part No.
32 ¹⁾	EAMM-U-50-D32-40A-78	1201591
32 ¹⁾	EAMM-U-60-D32-55A-91	1210126
32 ²⁾	EAMM-U-50-D32-42A-78	1201607
32 ²⁾	EAMM-U-60-D32-57A-91	1210419
40 ¹⁾	EAMM-U-60-D40-55A-91	1210438
40 ¹⁾	EAMM-U-86-D40-70A-102	1212826
40 ²⁾	EAMM-U-60-D40-57A-91	1210442
40 ²⁾	EAMM-U-86-D40-87A-102	1215802
63 ¹⁾	EAMM-U-86-D60-70A-102	1212477
63 ¹⁾	EAMM-U-110-D60-100A-120	1202436
63 ²⁾	EAMM-U-86-D60-87A-102	1215784

- 1) With servo motor EMMS-AS
2) With stepper motor EMMS-ST

14 Parallel kit EAMM-U-S1 with protection class IP65

For size	Type	Part No.
32 ¹⁾	EAMM-U-50-D32-40A-78-S1	1202302
32 ¹⁾	EAMM-U-60-D32-55A-91-S1	1210450
32 ²⁾	EAMM-U-50-D32-42A-78-S1	1202312
32 ²⁾	EAMM-U-60-D32-57A-91-S1	1210453
40 ¹⁾	EAMM-U-60-D40-55A-91-S1	1210458
40 ¹⁾	EAMM-U-86-D40-70A-102-S1	1212854
40 ²⁾	EAMM-U-60-D40-57A-91-S1	1210462
40 ²⁾	EAMM-U-86-D40-87A-102-S1	1215814
63 ¹⁾	EAMM-U-86-D60-70A-102-S1	1212835
63 ¹⁾	EAMM-U-110-D60-100A-120-S1	1203112
63 ²⁾	EAMM-U-86-D60-87A-102-S1	1215810

- 1) With servo motor EMMS-AS
2) With stepper motor EMMS-ST

15 Axial kit EAMM-A

For size	Type	Part No.
32 ¹⁾	EAMM-A-D32-40A	543147
32 ¹⁾	EAMM-A-D32-55A	550979
32 ²⁾	EAMM-A-D32-42A	543148
32 ²⁾	EAMM-A-D32-57A	550980
32 ³⁾	EAMM-A-D32-32B	543149
40 ¹⁾	EAMM-A-D40-55A	543153
40 ¹⁾	EAMM-A-D40-70A	550981
40 ²⁾	EAMM-A-D40-57A	543154
40 ²⁾	EAMM-A-D40-87A	550982
40 ³⁾	EAMM-A-D40-42B	543155
40 ³⁾	EAMM-A-D40-42C	543156
63 ¹⁾	EAMM-A-D60-70A	543161
63 ¹⁾	EAMM-A-D60-100A	550983
63 ²⁾	EAMM-A-D60-87A	543162
63 ³⁾	EAMM-A-D60-52B	543163
63 ³⁾	EAMM-A-D60-52C	543164

- 1) With servo motor EMMS-AS
2) With stepper motor EMMS-ST
3) With motor unit MTR-DCI

15 Axial kit EAMM-A-S1 with protection class IP65

For size	Type	Part No.
32 ¹⁾	EAMM-A-D32A-40A-S1	1322178
32 ¹⁾	EAMM-A-D32A-55A-S1	1322180
32 ²⁾	EAMM-A-D32A-42A-S1	1322179
32 ²⁾	EAMM-A-D32A-57A-S1	1322181
40 ¹⁾	EAMM-A-D40A-55A-S1	1322182
40 ¹⁾	EAMM-A-D40A-70A-S1	1322185
40 ²⁾	EAMM-A-D40A-57A-S1	1322183
40 ²⁾	EAMM-A-D40A-87A-S1	1322186
63 ¹⁾	EAMM-A-D60A-70A-S1	1322187
63 ¹⁾	EAMM-A-D60A-100A-S1	1322190
63 ²⁾	EAMM-A-D60A-87A-S	1322188

- 1) With servo motor EMMS-AS
2) With stepper motor EMMS-ST

16 Foot mounting HNCE, for axial motor attachment

For size	Type	Part No.
32	HNCE-32-AX	547949
40	HNCE-40-AX	547950
63	HNCE-63-AX	547951

18 Profile mounting EAHF

For size	Type	Part No.
32	EAHF-V1-32-P	1098473
40	EAHF-V1-40-P	1098478
63	EAHF-V1-63-P	1098481

19 Proximity sensor SME-8/SMT-8M, insertable in the slot lengthwise

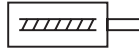
Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-8-K-LED-24	150855
Magneto-resistive		
Cable, 2.5 m, 3-wire	SMT-8M-A-PS-24V-E-2,5-OE	574335
Plug M8x1, 3-pin	SMT-8M-A-PS-24V-E-0,3-M8D	574334

19 Proximity sensor SME-8M, insertable in the slot from above

Description	Type	Part No.
Magnetic reed		
Cable, 2.5 m, 3-wire	SME-8M-DS-24V-K-2,5-OE	543862
Cable, 5 m, 3-wire	SME-8M-DS-24V-K-5,0-OE	543863

25 Coupling piece KSZ

For size	Type	Part No.
32	KSZ-M10x1,25	36125
40	KSZ-M12x1,25	36126
63	KSZ-M16x1,5	36127



- ## Type codes – Basic design

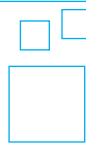
Variants

L Cable outlet direction left
R Cable outlet direction right

Electric cylinders EPCO, with spindle drive

FESTO

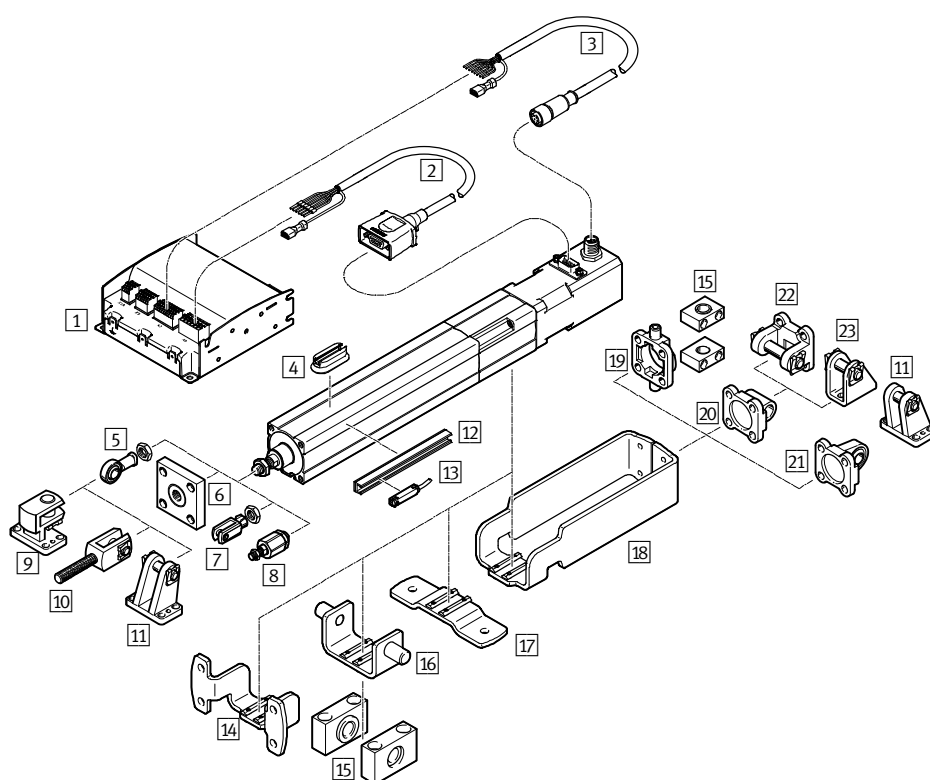
Ordering data – Variants

Configurable
productThis product and all its variants
can be ordered using the
configurator.The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...Enter the type or configuration
part number in the search field.

Ordering data – Basic design

Spindle pitch [mm]	Stroke [mm]				
	50	100	150	200	300
Size 16					
3P	1476415	1476417	1476419	1476421	
8P	1476522	1476524	1476526	1476528	
Size 25					
3P	1470698	1470700	1470702	1470704	1470706
10P	1470769	1470771	1470773	1470775	1470777
Size 40					
5P	1472501	1472503	1472505	1472507	1472509
12.7P	1472617	1472619	1472621	1472623	1472625

Accessories



- 1 Controller CMMO → [cmmo](#)
- 2 Motor cable NEBM → [nebm](#)
- 3 Encoder cable NEBM → [nebm](#)
- 4 Mounting kit CRSMB → [crsmb](#)
- 5 Rod eye SGS → 60
- 6 Coupling piece KSG → [ksg](#)
- 7 Rod clevis SG → 60
- 8 Self-aligning rod coupler FK → 60
- 9 Right-angle clevis foot LQG → 60
- 10 Rod clevis SGA → 61
- 11 Clevis foot LBG → 61
- 12 Sensor rail SAMH → [samh](#)
- 13 Proximity sensor SME-/SMT-8 → [sme-8](#),
SME-8M → 113
- 14 Flange mounting EAHH → 61
- 15 Trunnion support LNKG → 61
- 16 Swivel mounting EAHS → 61
- 17 Foot mounting EAHF → 61
- 18 Adapter kit EAHA → 61
- 19 Trunnion flange ZNCF → 61
- 20 Swivel flange SNCL → 61
- 21 Swivel flange SNCS → 61
- 22 Swivel flange SNCB → 61
- 23 Clevis foot LBN → 61

5 Rod eye SGS		
For	Type	Part No.
16	SGS-M6	9254
25	SGS-M8	9255
40	SGS-M10x1,25	9261

7 Rod eye SG		
For	Type	Part No.
16	SG-M6	3110
25	SG-M8	3111
40	SG-M10x1,25	6144

8 Self-aligning rod coupler FK		
For	Type	Part No.
16	FK-M6	2061
25	FK-M8	2062
40	FK-M10x1,25	6140

9 Right-angle clevis foot LQG		
For	Type	Part No.
40	LQG-40	31769

Accessories

10 Rod clevis SGA		
For	Type	Part No.
40	SGA-M10x1,25	32954

11 Clevis foot LBG		
For	Type	Part No.
40	LBG-40	31762

14 Flange mounting EAHH		
For	Type	Part No.
16	EAHH-P1-16	1434906
25	EAHH-P1-25	1434907
40	EAHH-P1-40	1434908

15 Trunnion support LNKG		
For	Type	Part No.
16	LNKG-16	1434912
25	LNKG-32	32959
40	LNKG-40/50	32960

16 Swivel mounting EAHS		
For	Type	Part No.
16	EAHS-P1-16	1434909
25	EAHS-P1-25	1434910
40	EAHS-P1-40	1434911

17 Foot mounting EAHF		
For	Type	Part No.
16	EAHF-P1-16	1434903
25	EAHF-P1-25	1434904
40	EAHF-P1-40	1434905

18 Adapter kit EAHA		
For	Type	Part No.
16	EAHA-P1-16	1434900
25	EAHA-P1-25	1434901
40	EAHA-P1-40	1434902

19 Trunnion flange ZNCF		
For	Type	Part No.
40	ZNCF-40	174412

20 Swivel flange SNCL		
For	Type	Part No.
16	SNCL-16	537791
25	SNCL-25	537793
40	SNCL-40	174405

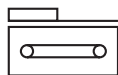
21 Swivel flange SNCS		
For	Type	Part No.
40	SNCS-40	174398

22 Swivel flange SNCB		
For	Type	Part No.
40	SNCB-40	174391

23 Clevis foot LBN		
For	Type	Part No.
16	LBN-12/16	6058
25	LBN-20/25	6059
40	LBN-40	195861

Toothed belt axes EGC-TB-KF, with recirculating ball bearing guide

FESTO



- High speeds and feed forces
- Recirculating ball bearing guide and rigid profile
- High loads and torques
- Free choice of motor assembly

Type codes

Type		EGC	-		-		-	TB	-	KF	-		
EGC	Electromechanical linear axis												
Size													
	Stroke [mm]												
50	50 ... 1,900												
70	50 ... 5,000												
80	50 ... 8,500												
120	50 ... 8,500												
185	50 ... 8,500												
Drive function													
TB	Toothed belt drive												
Guide													
KF	Recirculating ball bearing guide												
Stroke reserve													
...H	0 ... 999 (0 = no stroke reserve)	1											
Slide													
GK	Standard slide												
GV	Extended slide												
GP	Standard slide, protected												
GQ	Extended slide, protected												

1 The sum of the stroke length and 2x stroke reserve must not exceed the maximum working stroke.

Variants

KL Additional slide on left

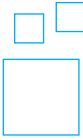
KR Additional slide on right

C Lubrication adapter

Toothed belt axes EGC-TB-KF, with recirculating ball bearing guide

FESTO

Ordering data – Variants



Configurable product

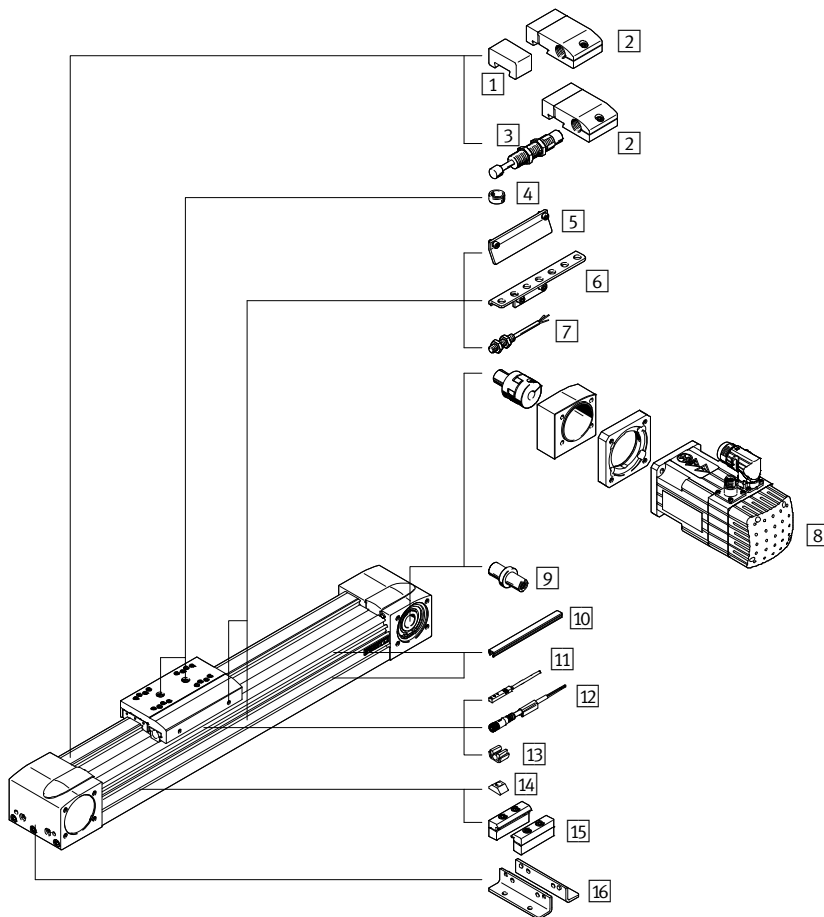
This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Configuration part no.		
Size	Type	Part No.
50	EGC-50-TB-KF-0H-GK	556812
70	EGC-70-TB-KF-0H	556813
80	EGC-80-TB-KF-0H	556814
120	EGC-120-TB-KF-0H	556815
185	EGC-185-TB-KF-0H	556817

Accessories



- 1 Emergency buffer NPE → [npe](#)
- 2 Shock absorber retainer KYE → [kye](#)
- 3 Shock absorber YSRW → [ysrw](#)
- 4 Centring pin/sleeve ZBS/ZBH → 64
- 5 Switch lug SF-EGC → 64
- 6 Sensor bracket HWS-EGC → [hws-egc](#)
- 7 Inductive proximity sensor SIEN → [sien](#)
- 8 Axial kit EAMM-A → 64
Motor EMMS → [emms](#)
- 9 Drive shaft EAMB → [eamb](#)
- 10 Slot cover ABP/ABP-S → [abp](#)
- 11 Inductive proximity sensor SIES → 64
- 12 Connecting cable NEBU → [nebu](#)
- 13 Clip SMBK → [smbk](#)
- 14 Slot nut NST → 64
- 15 Profile mounting MUE → 64
- 16 Foot mounting HPE → 64

Toothed belt axes EGC-TB-KF, with recirculating ball bearing guide

Accessories

[4] Centring pin/sleeve ZBS/ZBH		
For size	Type	Part No.
50, 70	ZBS-5 ¹⁾²⁾	150928
80, 120, 185	ZBH-9 ¹⁾²⁾	150927

1) Packaging unit 10 pieces.

2) 2 centring pins/sleeves included in the scope of delivery of the axis.

[5] Switch lug SF-EGC		
For size	Type	Part No.
50	SF-EGC-1-50	558046
70	SF-EGC-1-70	558047
80	SF-EGC-1-80	558048
120	SF-EGC-1-120	558049
185	SF-EGC-1-185	558051

3) For sensing via proximity sensor SIES-8M.

[8] Axial kit EAMM-A		
For size	Type	Part No.
50 ⁴⁾	EAMM-A-L27-55A	557975
50 ⁵⁾	EAMM-A-L27-57A	560678
70 ⁴⁾	EAMM-A-L38-70A	557979
70 ⁵⁾	EAMM-A-L38-87A	560680
80 ⁴⁾	EAMM-A-L48-70A	557982
80 ⁴⁾	EAMM-A-L48-100A	557984
80 ⁵⁾	EAMM-A-L48-87A	560683
120 ⁴⁾	EAMM-A-L62-100A	557988
120 ⁴⁾	EAMM-A-L62-140A	557990
185 ⁴⁾	EAMM-A-L95-140A	557994

4) With servo motor EMMS-AS.

5) With stepper motor EMMS-ST.

[11] Inductive proximity sensor SIES		
Description	Type	Part No.
N/O contact		
PNP, cable	SIES-8M-PS-24V-K-7,5-OE	551386
PNP, plug	SIES-8M-PS-24V-K-0,3-M8D	551387
NPN, cable	SIES-8M-NS-24V-K-7,5-OE	551396
NPN, plug	SIES-8M-NS-24V-K-0,3-M8D	551397
N/C contact		
PNP, cable	SIES-8M-PO-24V-K-7,5-OE	551391
PNP, plug	SIES-8M-PO-24V-K-0,3-M8D	551392
NPN, cable	SIES-8M-NO-24V-K-7,5-OE	551401
NPN, plug	SIES-8M-NO-24V-K-0,3-M8D	551402

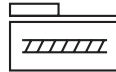
[14] Slot nut NST		
For size	Type	Part No.
50	NST-3-M3	558045
70, 80	NST-5-M5	150914
120, 185	NST-8-M6	150915

[15] Profile mounting MUE		
For size	Type	Part No.
50	MUE-50	558042
70, 80	MUE-70/80	558043
120, 185	MUE-120/185	558044

[16] Foot mounting HPE		
For size	Type	Part No.
50	HPE-50	558320
70	HPE-70	558321
80	HPE-80	558322
120	HPE-120	558323
185	HPE-185	558325

Spindle axes EGC-BS-KF, with recirculating ball bearing guide

FESTO



- High speeds and feed forces
- Recirculating ball bearing guide and rigid profile
- High loads and torques

Type codes

EGC		-		-		-	BS	-		-	KF	-		-	
Type															
EGC	Electromechanical linear axis														
Size															
	Stroke [mm]														
70	100; 200; 300; 400; 500; 600; 700; 800; 1,000	50 ... 1,000													
80	100; 200; 300; 500; 600; 800; 1,000; 1,400; 1,500; 1,800; 2,000	50 ... 2,000													
120	200; 300; 500; 600; 800; 1,000; 1,400; 1,500; 2,000; 2,500	50 ... 2,500													
185	300; 500; 600; 1,000; 1,500; 2,000; 2,500; 3,000	50 ... 3,000													
Drive function															
BS	Ball screw														
Spindle pitch															
10P	10 mm/rev	1													
20P	20 mm/rev	2													
25P	25 mm/rev	3													
40P	40 mm/rev	4													
Guide															
KF	Recirculating ball bearing guide														
Stroke reserve															
...H	0 ... 999 (0 = no stroke reserve)	5													
Motor attachment position															
ML	Left														
MR	Right														
Slide															
GK	Standard slide														
GV	Extended slide														
GP	Standard slide, protected														
GQ	Extended slide, protected														

1 Only with size 70, 80, 120.

2 Only with size 80.

3 Only with size 120.

4 Only with size 185.

5 The sum of the stroke length and 2x stroke reserve must not exceed the maximum working stroke.

Spindle axes EGC-BS-KF, with recirculating ball bearing guide

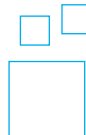
Variants

ML Motor on left
MR Motor on right

KL Additional slide on left
KR Additional slide on right

C Lubrication adapter

Ordering data – Variants



Configurable product

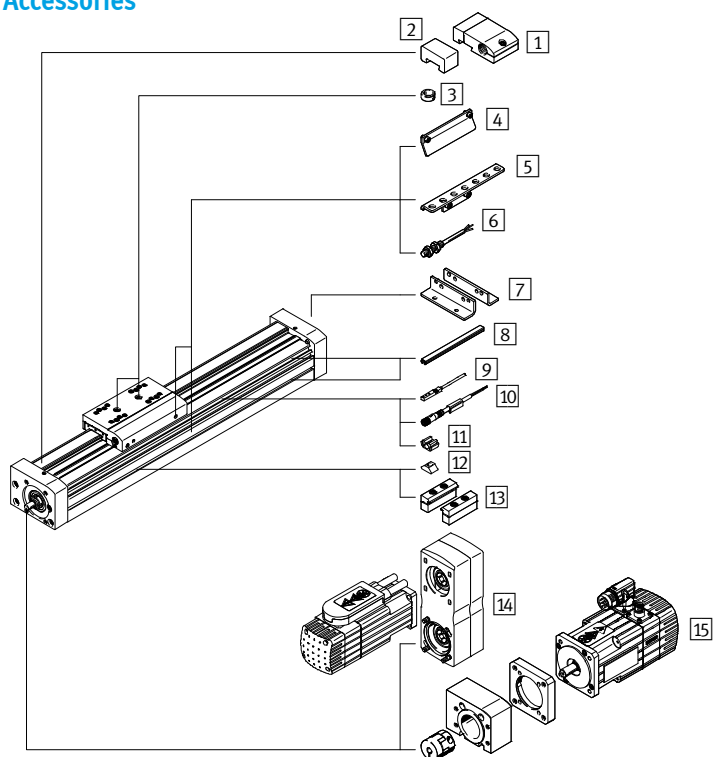
This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Configuration part no.		
Size	Type	Part No.
70	EGC-70-BS-10P-KF-0H	556807
80	EGC-80-BS-KF-0H	556808
120	EGC-120-BS-KF-0H	556809
185	EGC-185-BS-40P-KF-0H	556811

Accessories



- 1 Emergency buffer NPE → [npe](#)
- 2 Shock absorber retainer KYE → [kye](#)
- 3 Centring pin/sleeve ZBS/ZBH → 66
- 4 Switch lug SF-EGC → 66
- 5 Sensor bracket HWS-EGC → [hws-egc](#)
- 6 Inductive proximity sensor SIEN → [sien](#)
- 7 Foot mounting HPE → 67
- 8 Slot cover ABP/ABP-S → [abp](#)
- 9 Inductive proximity sensor SIES → 67
- 10 Connecting cable NEBU → [nebu](#)
- 11 Clip SMBK → [smbk](#)
- 12 Slot nut NST → 67
- 13 Profile mounting MUE → 67
- 14 Parallel kit EAMM-U → 67
Motor EMMS → [emms](#)
- 15 Axial kit EAMM-A → 67
Motor EMMS → [emms](#)

3 Centring pin/sleeve ZBS/ZBH		
For size	Type	Part No.
70	ZBS-5 ¹⁾²⁾	150928
80, 120, 185	ZBH-9 ¹⁾²⁾	150927

1) Packaging unit 10 pieces.

2) 2 centring pins/sleeves included in the scope of delivery of the axis.

4 Switch lug SF-EGC ³⁾		
For size	Type	Part No.
70	SF-EGC-1-70	558047
80	SF-EGC-1-80	558048
120	SF-EGC-1-120	558049
185	SF-EGC-1-185	558051

3) For sensing via proximity sensor SIES-8M.

Accessories

7 Foot mounting HPE		
For size	Type	Part No.
70	HPE-70	558321
80	HPE-80	558322
120	HPE-120	558323
185	HPE-185	558325

9 Inductive proximity sensor SIES		
Description	Type	Part No.
N/O contact		
PNP, cable	SIES-8M-PS-24V-K-7,5-OE	551386
PNP, plug	SIES-8M-PS-24V-K-0,3-M8D	551387
NPN, cable	SIES-8M-NS-24V-K-7,5-OE	551396
NPN, plug	SIES-8M-NS-24V-K-0,3-M8D	551397
N/C contact		
PNP, cable	SIES-8M-PO-24V-K-7,5-OE	551391
PNP, plug	SIES-8M-PO-24V-K-0,3-M8D	551392
NPN, cable	SIES-8M-NO-24V-K-7,5-OE	551401
NPN, plug	SIES-8M-NO-24V-K-0,3-M8D	551402

12 Slot nut NST		
For size	Type	Part No.
70, 80	NST-5-M5	150914
120, 185	NST-8-M6	150915

13 Profile mounting MUE		
For size	Type	Part No.
70, 80	MUE-70/80	558043
120, 185	MUE-120/185	558044

14 Parallel kit EAMM-U		
For Ø	Type	Part No.
70 ⁴⁾	EAMM-U-50-S38-40A-78	1217708
70 ⁴⁾	EAMM-U-60-S38-55A-91	1218538
70 ⁵⁾	EAMM-U-50-S38-42A-78	1217945
70 ⁵⁾	EAMM-U-60-S38-57A-91	1218568
80 ⁴⁾	EAMM-U-60-S48-55A-91	1219370
80 ⁴⁾	EAMM-U-86-S48-70A-102	1217689
80 ⁵⁾	EAMM-U-60-S48-57A-91	1219379
80 ⁵⁾	EAMM-U-86-S48-87A-177	1217604
120 ⁴⁾	EAMM-U-86-S62-70A-177	1217543
120 ⁴⁾	EAMM-U-110-S62-100A-207	1217381
120 ⁴⁾	EAMM-U-145-S62-140A-288	1219440
120 ⁵⁾	EAMM-U-86-S62-87A-177	1217373
185 ⁴⁾	EAMM-U-110-S95-100A-207	1220656
185 ⁴⁾	EAMM-U-145-S95-140A-288	1220582

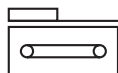
- 4) With servo motor EMMS-AS
5) With stepper motor EMMS-ST

15 Axial kit EAMM-A		
For size	Type	Part No.
70 ⁴⁾	EAMM-A-S38-40A	558162
70 ⁴⁾	EAMM-A-S38-55A	558163
70 ⁵⁾	EAMM-A-S38-42A	560685
70 ⁵⁾	EAMM-A-S38-57A	560686
80 ⁴⁾	EAMM-A-S48-55A	558164
80 ⁴⁾	EAMM-A-S48-70A	558165
80 ⁵⁾	EAMM-A-S48-57A	560687
80 ⁵⁾	EAMM-A-S48-87A	560688
120 ⁴⁾	EAMM-A-S62-70A	558166
120 ⁴⁾	EAMM-A-S62-100A	558167
120 ⁴⁾	EAMM-A-S62-140A	558168
120 ⁵⁾	EAMM-A-S62-87A	560689
185 ⁴⁾	EAMM-A-S95-100A	558169
185 ⁴⁾	EAMM-A-S95-140A	558170

- 4) With servo motor EMMS-AS
5) With stepper motor EMMS-ST

Toothed belt axes ELGR

FESTO



- Ready-to-install unit for quick and easy design
- Motor can be mounted on any of four sides – for every installation situation
- Highly reliable
- Kit for easy and space-saving position sensing

Type codes

Type		ELGR	–	TB	–		–		–		–	
Drive function		TB										
Guide		–	Recirculating ball bearing guide									
		GF	Plain-bearing guide									
Size												
		Stroke [mm]										
35		50 ... 800										
45		50 ... 1,000										
55		50 ... 1,500										
Stroke reserve												
...H		0 ... 999 (0 = no stroke reserve)	1									

1 The sum of the nominal stroke and 2x stroke reserve must be at least 50 mm and must not exceed the maximum stroke length.

Variants

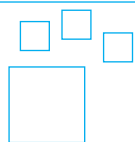
L Slide, long

ZR 1 slide on right

ZL 1 slide on left

ZB 1 slide on right, 1 slide on left

Ordering data – Variants



Configurable product

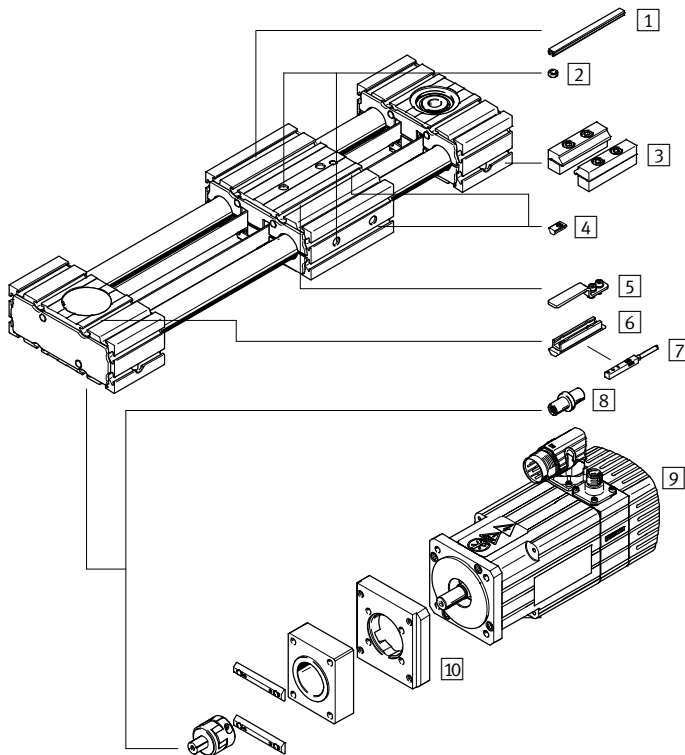
This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Configuration part no.		
Size	Type	Part No.
35	ELGR-TB-35-0H	560505
45	ELGR-TB-45-0H	560506
55	ELGR-TB-55-0H	560507

Accessories



- 1 Slot cover ABP-5 → 69
- 2 Centring sleeve ZBH-7 → 69
- 3 Profile mounting MUE → 69
- 4 Slot nut NST → 69
- 5 Switch lug EAPM-SLS → 69
- 6 Sensor bracket EAPM-SHS → 69
- 7 Inductive proximity sensor SIES → 69
- 8 Drive shaft EAMB → [eamb](#)
- 9 Motor EMMS → [emms](#)
- 10 Axial kit EAMM-A → 69

1 Slot cover ABP-5		
For size	Type	Part No.
45, 55	ABP-5	151681

2 Centring sleeve ZBH-7		
For size	Type	Part No.
35, 45, 55	ZBH-7 ¹⁾²⁾	186717

- 1) Packaging unit 10 pieces.
2) 2 centring pins/sleeves included in the scope of delivery of the axis.

3 Profile mounting MUE		
For size	Type	Part No.
35	MUE-50	558042
45, 55	MUE-45	562238

4 Slot nut NST		
For size	Type	Part No.
35	NST-3-M3	558045
45, 55	NST-5-M5	150914

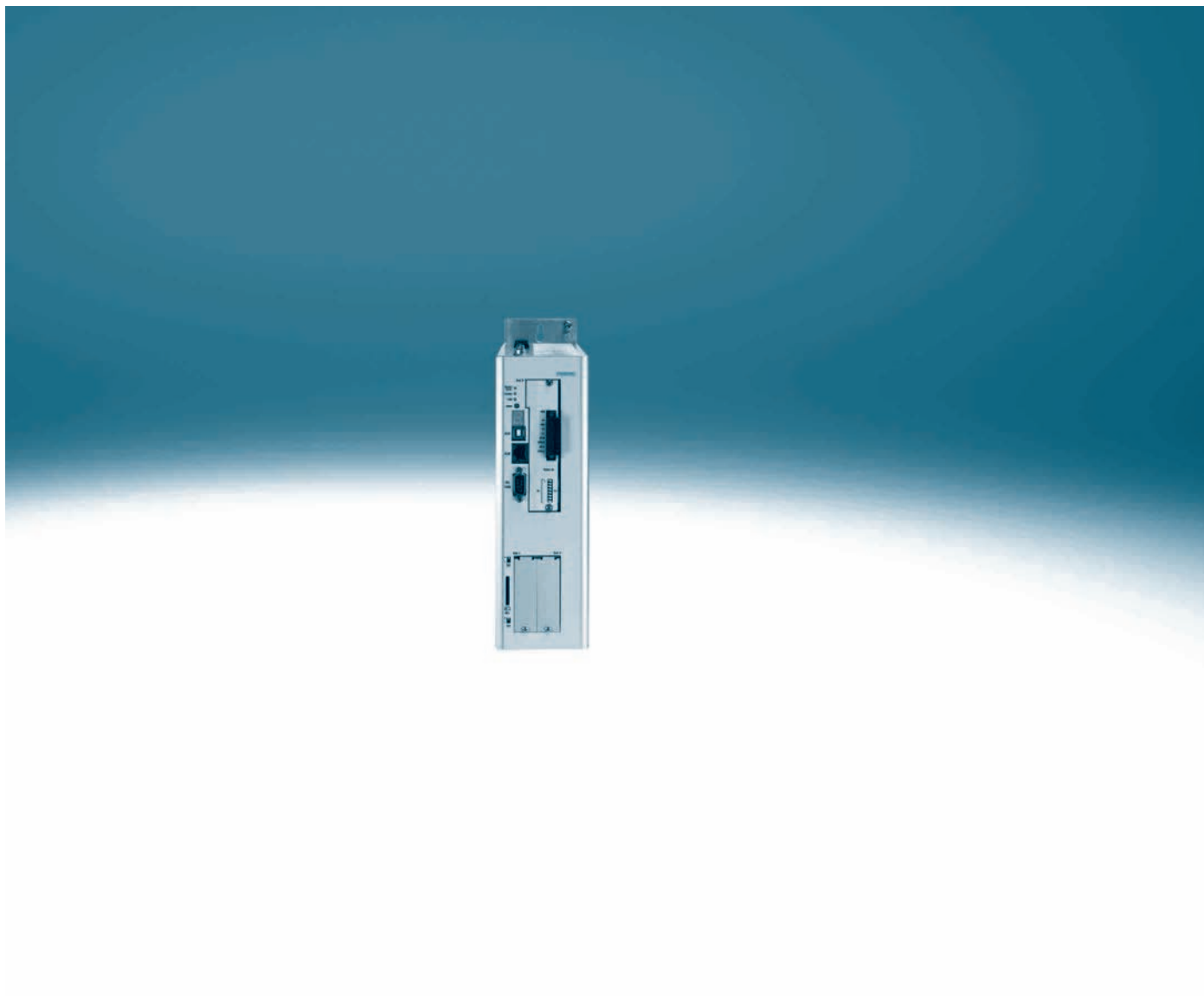
5 Switch lug EAPM-SLS		
For size	Type	Part No.
35, 45, 55	EAPM-L4-SLS	567538

6 Sensor bracket EAPM-SHS		
For size	Type	Part No.
35, 45, 55	EAPM-L4-SHS	567537

7 Inductive proximity sensor SIES		
Description	Type	Part No.
N/O contact		
PNP, cable	SIES-8M-PS-24V-K-7,5-OE	551386
PNP, plug	SIES-8M-PS-24V-K-0,3-M8D	551387
NPN, cable	SIES-8M-NS-24V-K-7,5-OE	551396
NPN, plug	SIES-8M-NS-24V-K-0,3-M8D	551397
N/C contact		
PNP, cable	SIES-8M-PO-24V-K-7,5-OE	551391
PNP, plug	SIES-8M-PO-24V-K-0,3-M8D	551392
NPN, cable	SIES-8M-NO-24V-K-7,5-OE	551401
NPN, plug	SIES-8M-NO-24V-K-0,3-M8D	551402

10 Axial kit EAMM-A		
For size	Type	Part No.
35 ¹⁾	EAMM-A-R27-55A	1133400
35 ²⁾	EAMM-A-R27-57A	1133403
45 ¹⁾	EAMM-A-R38-70A	1133401
45 ²⁾	EAMM-A-R38-87A	1133404
55 ¹⁾	EAMM-A-R48-100A	1133402
55 ²⁾	EAMM-A-R48-87A	1133405

- 1) With servo motor EMMS-AS
2) With stepper motor EMMS-ST



Servo motors

Servo motor EMME-AS

- Compatible with motor controller CMMP-AS
- Digital absolute displacement encoder with single turn (standard), multi-turn (optional)
- Compatible gear unit
- Protection class: IP21 (motor shaft), IP65 (motor housing and connection technology)

→ [emme-as](#)



Servo motor EMMS-AS

- Compatible with motor controller CMMP-AS/CMMS-AS
- Digital absolute displacement encoder with single turn (standard), multi-turn (optional), resolver
- Compatible gear unit
- Protection class: IP54 (motor shaft), IP65 (motor housing and connection technology)

→ [emms-as](#)



Motor unit MTR-DCI, intelligent servo motor

- Integrated position controller, power electronics and gear unit
- Closed-loop operation
- Direct operation via keypad and display
- I/O or fieldbus interfaces

→ [mtr-dci](#)



Stepper motors

Stepper motor EMMS-ST

- Compatible with motor controller CMMS-ST
- Optional encoder for full positioning functionality
- Compatible gear unit
- Protection class IP54

→ [emms-st](#)



Controllers

Controllers for servo motors

Motor controller CMMP-AS

- Closed-loop operation with speed, position, current and torque control
- Analogue, I/O or fieldbus, Ethernet interfaces
- SD card for parameters and firmware
- Compatible with motor EMMS-AS

→ [cmmp-as](#)



Motor controller SFC-DC

- Position controller for mini slide SLTE
- With or without control panel
- Protection class IP54
- I/O or fieldbus interfaces

→ [sfc-dc](#)



Motor controller SFC-LACI

- For controlling electric cylinder DNCE-LAS and guided drive DFME-LAS
- Open-loop and closed-loop position controller
- Protection class IP54

→ [sfc-laci](#)



End-position controller CMFL

- For force-controlled positioning of short-stroke cylinder ADNE-LAS
- High dynamic response

→ [cmfl](#)



Controllers

Controllers for stepper motors

Motor controller CMMO-ST

- Various interfaces
- Web-based functions for easy start-up and diagnostics
- 31 control positions for freely adjustable motion profiles
- Electric cylinder EPCO and controller CMMO form one unit

→ [cmmo-st](#)

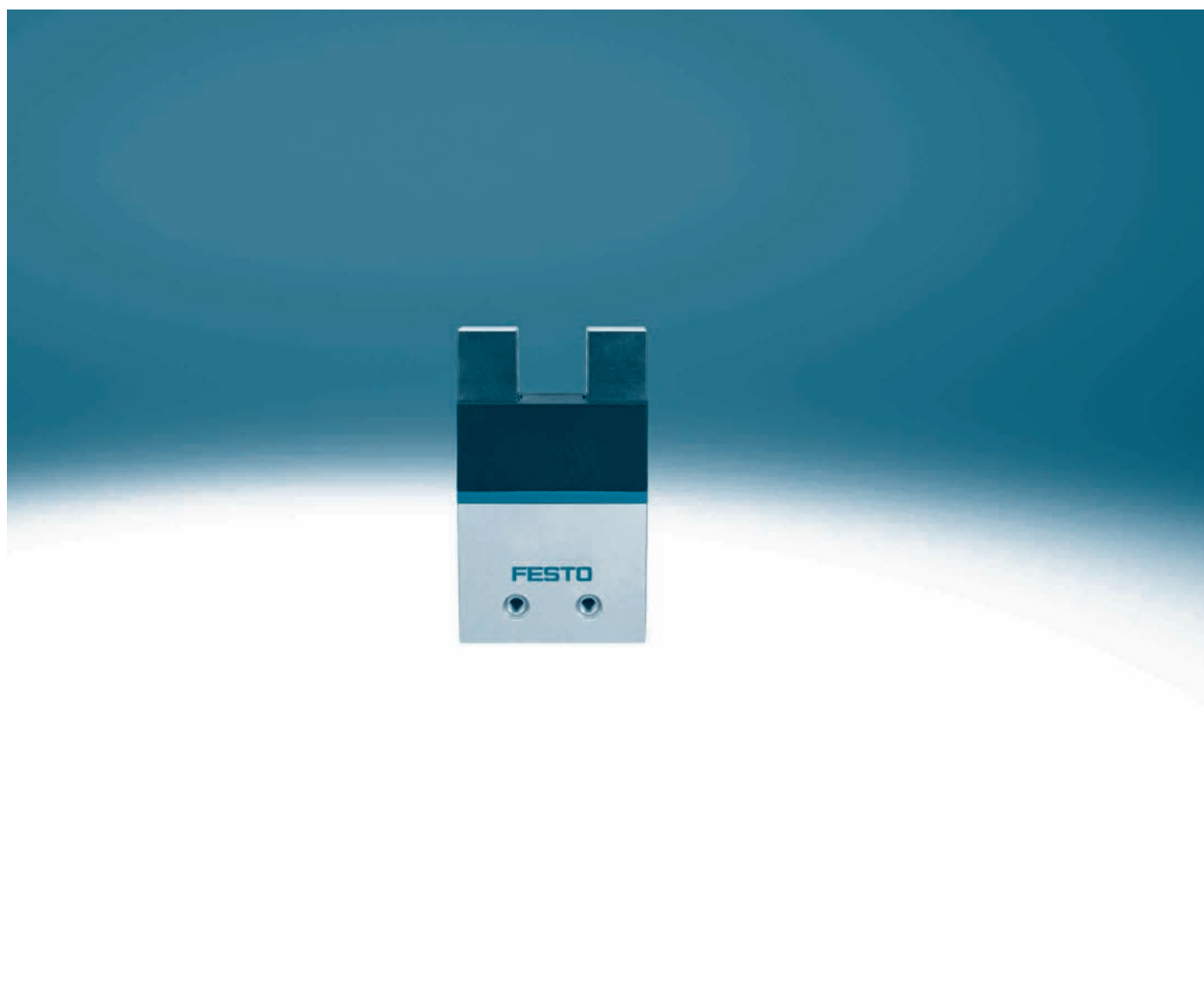


Motor controller CMMS-ST

- Open-loop operation, closed-loop operation with encoder optional
- Analogue, I/O or fieldbus interfaces
- Integrated SD card slot
- Compatible with motor EMMS-ST

→ [cmms-st](#)





Mechanical grippers

Parallel gripper DHPS

- Sturdy and precise T-slot guidance of the gripper jaws
- High gripping force and compact size
- Max. repetition accuracy
- Wide range of options for mounting on drives

→ dhps



Three-point gripper DHDS

- Sturdy and precise T-slot guidance of the gripper jaws
- High gripping force and compact size
- Max. repetition accuracy
- Wide range of options for mounting on drives

→ dhds



Angle gripper DHWS

- Improved gripper jaw guide
- Link guided movement
- Internal fixed flow control
- Max. repetition accuracy
- Wide range of options for mounting on drives

→ dhws



Radial gripper DHRS

- Lateral gripper jaw support for high torque loads
- Self-centring
- Gripper jaw centring options
- Max. repetition accuracy
- Opening angle 180°

→ dhrs



5

Sturdy and sealed grippers

Robust parallel gripper HGPT-B

- Robust and precise T-slot kinematics for maximum torque and process forces
- Gripping inside or out with one gripper type
- Optional gripping force backup through integrated compression spring
- High-power variants: twice the force for identical installation space and half the stroke – up to 6,300 N

→ hgpt



Robust three-point gripper HGDT

- Precise and robust for absorbing high torques via the T-slot guide
- Double-acting gripper for inside and out, single-acting and effective
- Optional gripping force backup through integrated compression spring
- High-power variants: twice the force with identical installation space and half the stroke – up to 4,500 N

→ hgdt



Radial gripper HGRT

- Robust and precise gripping – high gripping torque for secure gripping
- Freely adjustable total opening angle max. 180°
- One gripper type for gripping inside and out
- Sealing air for use under difficult conditions, e.g. against dust
- Gripping force backup

→ hgtr





Vacuum generators

Vacuum generator OVEM

- With vacuum switch with LCD display
- Adjustable ejector pulse
- Rapid vacuum build-up
- Fast and precise setting down
- Designs: high vacuum, high suction volume
- Electropneumatic

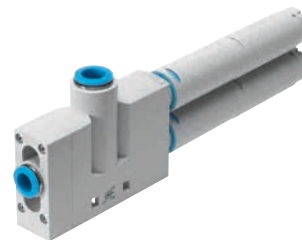
→ 79



Vacuum generator VN

- High vacuum levels of up to 93%
- 6 nominal sizes
- Designs: high vacuum, high suction volume
- Pneumatic

→ 81



Vacuum generator VAD

- High vacuum levels of up to 80%
- Without ejector pulse
- Sturdy and resistant
- Pneumatic

→ vad



Vacuum generator VAK

- High vacuum levels of up to 80%
- With ejector pulse
- Pneumatic

→ vak



Vacuum grippers

Suction gripper ESG

- Delivered fully assembled – according to your requirements
- Over 2,000 variants

→ 83



Suction cup holder ESH

- 6 holder sizes
- 8 holder types
- 3 different tube coupling types
- With or without height compensator

→ 84



Suction cup with connection attachments ESS

- 6 suction cup types in various sizes
- Round or oval shape
- Various polymer designs and mounting threads

→ 84

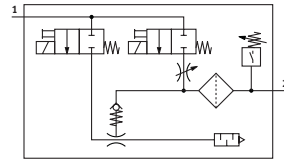


Suction cup VAS, bellows suction cup VASB

- Bellows suction cup can be adapted to uneven, inclined surfaces
- Round shape
- For various temperature ranges and workpiece surfaces

→ 86





- Integrated monitoring of process parameters
- Space-saving with a wide range of configuration options
- Integrated non-return valve to prevent pressure drops
- 4 performance classes
- Integrated solenoid valves to control the compressed air supply and the ejector pulse
- Easy to use and maintain
- Simple installation via QS fittings and M12 plugs
- Protection class IP65

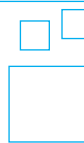
Type codes – Basic design

Type				OVEM	-		-	H	-	B	-		-		-	N	-	
OVEM	Vacuum generator																	
Nominal size of laval nozzle [mm]																		
05	0.45																	
07	0.7																	
10	0.95																	
14	0.14																	
20	2.0																	
Ejector characteristic																		
H	High vacuum																	
Housing size/width																		
B	Grid dimension 20 mm																	
Pneumatic connections																		
	Supply port (P)		Vacuum port (V)	Exhaust port (R)														
QO	QS push-in fitting		QS push-in fitting	Silencer, open														
Normal position of the vacuum generator																		
CE	NC, normally closed (no vacuum generation) with ejector pulse																	
Electrical connection																		
N	Plug M12 (5-pin)																	
Vacuum switch, electrical switching output																		
1P	1 Switching output 1x PNP																	
2P	2 Switching outputs 2x PNP																	

Variants

H	High vacuum	PL	Prepared for common supply manifold, V-R with QS fitting	OE	NO, normally open (vacuum generation) with ejector pulse	1N	1 Switching output 1x NPN
L	High suction rate					2N	2 Switching outputs 2x NPN
QO	P-V with QS fitting, R with open silencer	PO	Prepared for common supply manifold, V with QS fitting, R with open silencer	CN	NC, normally closed (no vacuum generation)	PU	1 Switching output 1x PNP + U
QS	P-V-R with QS fitting			CE	NC, normally closed (no vacuum generation) with ejector pulse	PI	1 Switching output 1x PNP + I
GN	P-V-R with female thread	ON	NO, normally open (vacuum generation)			NU	1 Switching output 1x NPN + U
GO	P-V with female thread, R with open silencer					NI	1 Switching output 1x NPN + I
						H	Alternative vacuum display inchHG

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

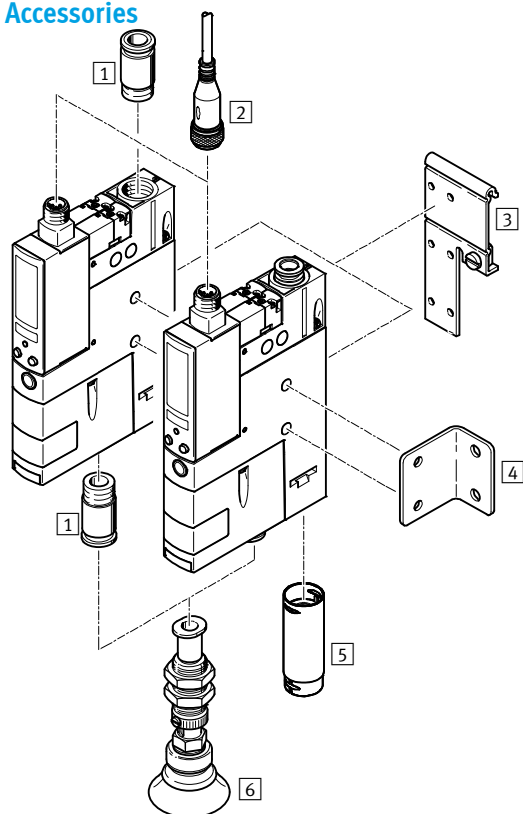
The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration
part number in the search field.

Ordering data – Basic design

Nominal size of laval nozzle [mm]	Pneumatic connections			
	Type	Part No.	Type	Part No.
	1 Switching output 1x PNP		2 Switching outputs 2x PNP	
0.45	OVEM-05-H-B-QO-CE-N-1P	540021	OVEM-05-H-B-QO-CE-N-2P	538831
0.7	OVEM-07-H-B-QO-CE-N-1P	540022	OVEM-07-H-B-QO-CE-N-2P	538832
0.95	OVEM-10-H-B-QO-CE-N-1P	540023	OVEM-10-H-B-QO-CE-N-2P	538833
1.4	OVEM-14-H-B-QO-CE-N-1P	540024	OVEM-14-H-B-QO-CE-N-2P	539997
2.0	OVEM-20-H-B-QO-CE-N-1P	8023699	OVEM-20-H-B-QO-CE-N-2P	8023700

Accessories



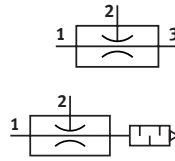
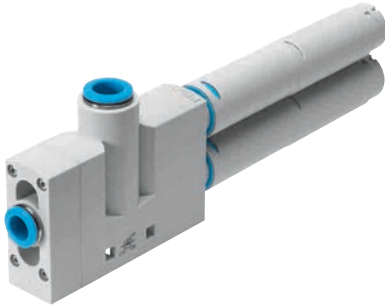
- 1 Push-in fitting QS → 149
- 2 Connecting cable NEBU-M12G5
→ 80
- 3 H-rail mounting OABM-H
→ [oabm-h](#)
- 4 Mounting bracket HRM-1
→ [hrm-1](#)
- 5 Silencer extension UOMS-1/4
→ 80
- 6 Suction gripper ESG → [esg](#)

2 Connecting cable NEBU

Description	Cable length	Type	Part No.
M12x1, 5-pin	2.5 m	NEBU-M12G5-K-2.5-LE5	541330
	5 m	NEBU-M12G5-K-5-LE5	541331

5 Silencer extension UOMS

Description	Type	Part No.
For vacuum generators OVEM-07/10/14	UOMS-1/4	538436



- High vacuum levels of up to 93%
- Easy connection of holders and suction cups
- Lightweight and compact design thanks to polymer housing
- No wearing parts, long service life
- Vacuum monitoring via vacuum switch
- Low environmental impact due to silencers

Type codes – Basic design

		VN		-				-		H		-				-				-					
Type																									
VN		Vacuum generator																							
Nominal size of laval nozzle [mm]																									
05		0.45																							
07		0.7																							
10		0.95																							
14		1.4																							
20		2.0																							
30		3.0																							
Ejector characteristic																									
H		High vacuum/standard																							
Housing type																									
T2		T-shape, grid dimension 10 mm (nominal size of laval nozzle 05 or 07 only)																							
T3		T-shape, grid dimension 14 mm (nominal size of laval nozzle 05, 07 or 10 only)																							
T4		T-shape, grid dimension 18 mm (nominal size of laval nozzle 10 or 14 only)																							
T6		T-shape, grid dimension 24 mm (nominal size of laval nozzle 20 or 30 only)																							
Supply port (P)																									
												Vacuum port (V)													
												Exhaust port (R)													
Housing type T2, grid dimension 10 mm																									
PQ1		Push-in connector QS4				VQ1		Push-in connector QS4				RQ1		Push-in connector QS4											
Housing type T3, grid dimension 14 mm																									
PQ2		Push-in connector QS6				VQ2		Push-in connector QS6				RO1		Silencer, open											
Housing type T4, grid dimension 18 mm																									
PQ2		Push-in connector QS6				VQ3		Push-in connector QS8				RO2		Silencer, open											
Housing type T6, grid dimension 24 mm																									
PQ4		Push-in connector QS10				VQ5		Push-in connector QS12				RO2		Silencer, open											

Variants

Ejector characteristic:

- L High suction rate/standard
- M High vacuum/inline
- N High suction rate/inline

Housing type:

- I2 Straight type, grid dimension 10 mm
- I3 Straight type, grid dimension 13 mm

Connection options:

- Female thread
- Male thread
- Push-in sleeve

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

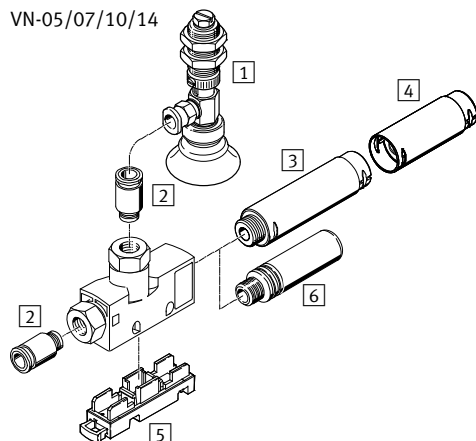
Enter the type or configuration
part number in the search field.

Ordering data – Basic design

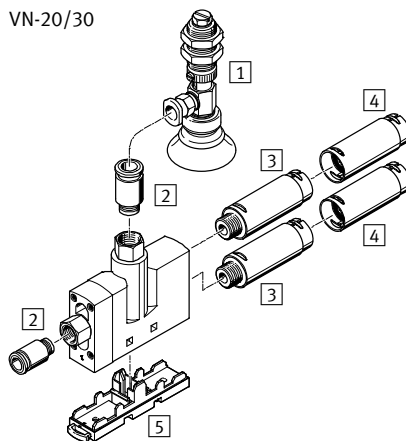
Nominal size of laval nozzle [mm]	Housing type	Vacuum port (V)	Type	Part No.
0.45	T2, grid dimension 10 mm	QS4	VN-05-H-T2-PQ1-VQ1-RQ1	526100
0.7	T2, grid dimension 10 mm	QS4	VN-07-H-T2-PQ1-VQ1-RQ1	526101
0.95	T3, grid dimension 14 mm	QS6	VN-10-H-T3-PQ2-VQ2-R01	193490
1.4	T4, grid dimension 18 mm	QS8	VN-14-H-T4-PQ2-VQ3-R02	547707
2.0	T6, grid dimension 24 mm	QS12	VN-20-H-T6-PQ4-VQ5-R02	193495
3.0	T6, grid dimension 24 mm	QS12	VN-30-H-T6-PQ4-VQ5-R02	193497

Accessories

VN-05/07/10/14



VN-20/30



- 1 Suction gripper ESG (complete solution) → 83
Suction cup holder ESH with suction cup with connection attachments ESS (individual components) → 85
- 2 Push-in fitting QS → 149
- 3 Silencer UOM → 82
- 4 Silencer extension UOMS → 82
- 5 Mounting plate VN-T → 82
- 6 Silencer UO → 175

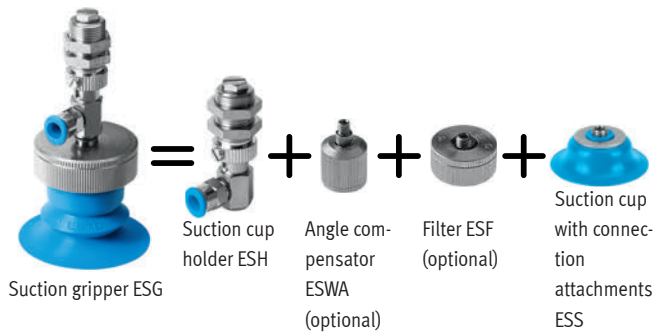
Accessories

3 Silencer UOM		
Pneumatic connection	Type	Part No.
G1/4	UOM-1/4	538432
G3/8	UOM-3/8	538433

4 Silencer extension UOMS		
For silencer	Type	Part No.
UOM-1/4	UOMS-1/4	538436
UOM-3/8	UOMS-3/8	538437

5 Mounting plate VN-T		
For housing type	Type	Part No.
T2	VN-T2-BP-NRH	196951
T3	VN-T3-BP-NRH	193641
T4	VN-T4-BP-NRH	195279
T6	VN-T6-BP-NRH ¹⁾	196956

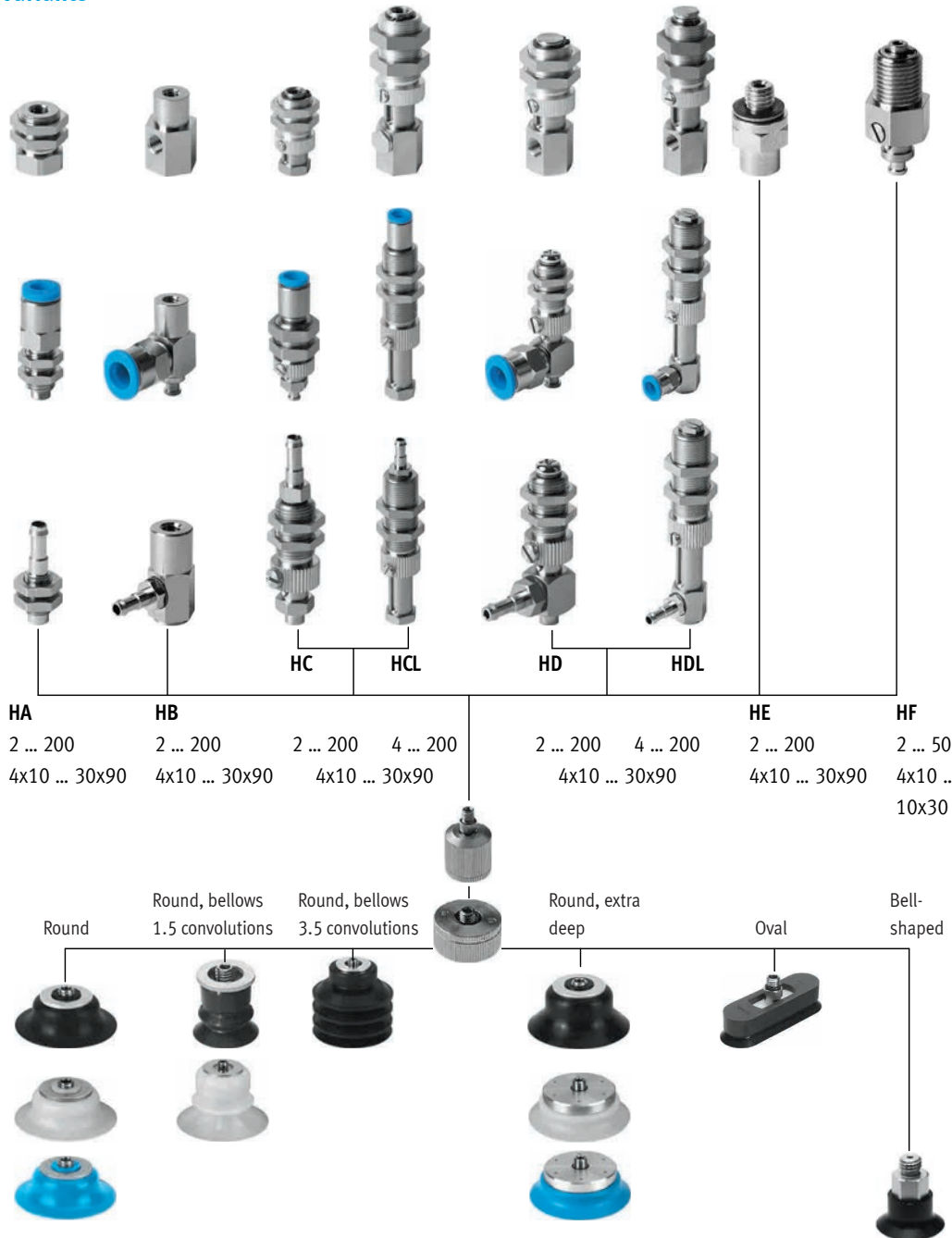
1) Horizontal wall mounting not permissible.



- Any combination of suction cup holder ESH and suction cup with connection attachments ESS is possible in the same holder size
- 15 different suction cup diameters from 2 ... 200 mm
- 6 different suction cup materials
- 6 different suction cup shapes

- 14 different suction cup holders ESH
- Suitable for a wide variety of temperature ranges and workpiece surfaces

Variants



Suction cup holder ESH → 84

Threaded connection G
for suction cup diameter 60 ... 200 mm
for suction cup size 15x45 ... 30x90 mm

Push-in connector QS
for suction cup diameter 2 ... 50 mm
for suction cup size 4x10 ... 10x30 mm

Barbed fitting connector PK
for suction cup diameter 2 ... 50 mm
for suction cup size 4x10 ... 10x30 mm

Holder types
for suction cup diameter [mm]
for suction cup size [mm]

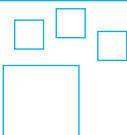
Angle compensator ESWA → eswa

Filter ESF → esf

Suction cup with connection attachments ESS → 84

Nitrile rubber (NBR)
Silicone (SI)
Polyurethane (PU)
Vulkollan® (GT/BT)

Ordering data – Variants



Configurable product

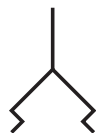
This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Suction cup holders ESH and suction cups with connection attachments ESS

FESTO



Suction cup holder ESH

- 6 holder sizes
- 8 holder types
- 3 different tube coupling types
- With and without height compensator
- Easy connection of the associated suction cups and vacuum generators

Suction cup with connection attachments ESS

- For accurate and gentle transportation of workpieces
- Lightweight and sturdy
- 6 suction cup types in various sizes
- Application-specific: comes in 6 different materials
- Long service life

Suction cup holder ESH

Suction cup with connection attachments ESS

Type codes – Suction cup holder ESH

Type		ESH	HA		QS
ESH	Suction cup holder				
Holder type					
HA	Male thread, 2 nuts, vacuum port on top				
Classification of suction cup holders					
1	Holder size 1				
2	Holder size 2				
3	Holder size 3				
4	Holder size 4				
Vacuum port					
QS	Push-in connector				

Variants – Suction cup holder ESH

HB Female thread, vacuum port on side

HC Male thread, 2 nuts, vacuum port on top, height compensator

5 Holder size 5

6 Holder size 6

G Threaded connection

PK Barbed fitting connection

Type codes – Suction cup with connection attachments ESS

Type		ESS		S	N
ESS	Suction cup				
Suction cup Ø [mm]					
2, 4, 6, 8, 10, 15, 20, 30, 40, 50, 60, 80, 100, 150, 200					
Suction cup type					
S	Round, standard				
Materials					
N	Nitrile rubber				

Variants – Suction cup with connection attachments ESS

E Extra deep

B Bellows, round, 1.5 convolutions

C Bellows, round, 3.5 convolutions

O Oval

G Bell-shaped

F Fluoro elastomer

NA Nitrile rubber, antistatic

S Silicone

U Polyurethane

T Vulkollan®

Suction cup holders ESH and suction cups with connection attachments ESS

FESTO

Ordering data – Suction cup holders ESH and suction cups with connection attachments ESS

Suction cup holder ESH				Suction cup with connection attachments ESS			
With male thread, 2 nuts, vacuum port on top				Round, standard			
Vacuum port V	Holder size	Type	Part No.	Suction cup Ø [mm]	Mounting thread	Type	Part No.
QS4	1	ESH-HA-1-QS	189193	2	Ø 3 ¹⁾	ESS-2-SN	189264
				4		ESS-4-SN	189269
	2	ESH-HA-2-QS	189195	6	Ø 3 ¹⁾	ESS-6-SN	189274
				8		ESS-8-SN	189279
QS6	3	ESH-HA-3-QS	189197	10	M4x0.7	ESS-10-SN	189284
				15		ESS-15-SN	189289
	4	ESH-HA-4-QS	189199	20	M6x1	ESS-20-SN	189294
				30		ESS-30-SN	189299
				40		ESS-40-SN	189304
				50		ESS-50-SN	189309
				60	M10x1.5	ESS-60-SN	189314
				80		ESS-80-SN	189318
				100		ESS-100-SN	189322
				150	M20x2	ESS-150-SN	189326
				200		ESS-200-SN	189330

1) Is plugged onto or into the suction cup

- Suction retention of workpieces with smooth, impervious surfaces
- Silicone suction cups are approved in food production
- Bellows suction cups can adapt to suit uneven, curved and inclined surfaces
- Excellent thermal resistance

	VAS	-		-		-		-	
Type									
VAS	Suction cup								
VASB	Suction cup, bellows								
Suction cup Ø [mm]									
		Vacuum port							
15	15	1/8	Thread G 1/8						
30	30	1/8	Thread G 1/8						
40	40	1/4	Thread G 1/4						
55	55	1/4	Thread G 1/4						
75	75	1/4	Thread G 1/4						
Materials									
NBR	Nitrile rubber								
PUR	Polyurethane								
Generation									
-	A series								
B	B series								

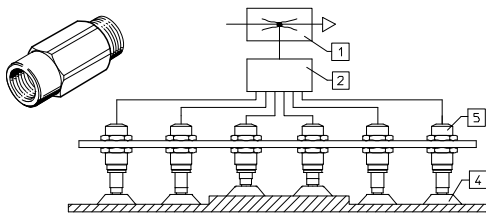
Other suction cup diameters:
1 mm, 2 mm, 5 mm, 8 mm, 10 mm,
100 mm, 125 mm

 Configurable product This product and all its variants can be ordered using the configurator. The configurator can be found on the DVD under Products or at [→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) Enter the type or configuration part number in the search field.

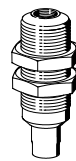
Ordering data – Basic design

Suction cup Ø [mm]	Suction cup VAS				Bellows suction cup VASB			
	Material	Part No.	Material	Part No.	Material	Part No.	Material	Part No.
	NBR		PUR		NBR		PUR	
15	VAS-15-1/8-NBR	36142	VAS-15-1/8-PUR-B	1396087	VASB-15-1/8-NBR	35411	VASB-15-1/8-PUR-B	1395671
30	VAS-30-1/8-NBR	34587	VAS-30-1/8-PUR-B	1396090	VASB-30-1/8-NBR	35412	VASB-30-1/8-PUR-B	1395690
40	VAS-40-1/4-NBR	36143	VAS-40-1/4-PUR-B	1396092	VASB-40-1/4-NBR	35413	VASB-40-1/4-PUR-B	1395691
55	VAS-55-1/4-NBR	36144	VAS-55-1/4-PUR-B	1396095	VASB-55-1/4-NBR	35414	VASB-55-1/4-PUR-B	1396063
75	VAS-75-1/4-NBR	36145	VAS-75-1/4-PUR-B	1396096	VASB-75-1/4-NBR	35415	VASB-75-1/4-PUR-B	1396064

Accessories

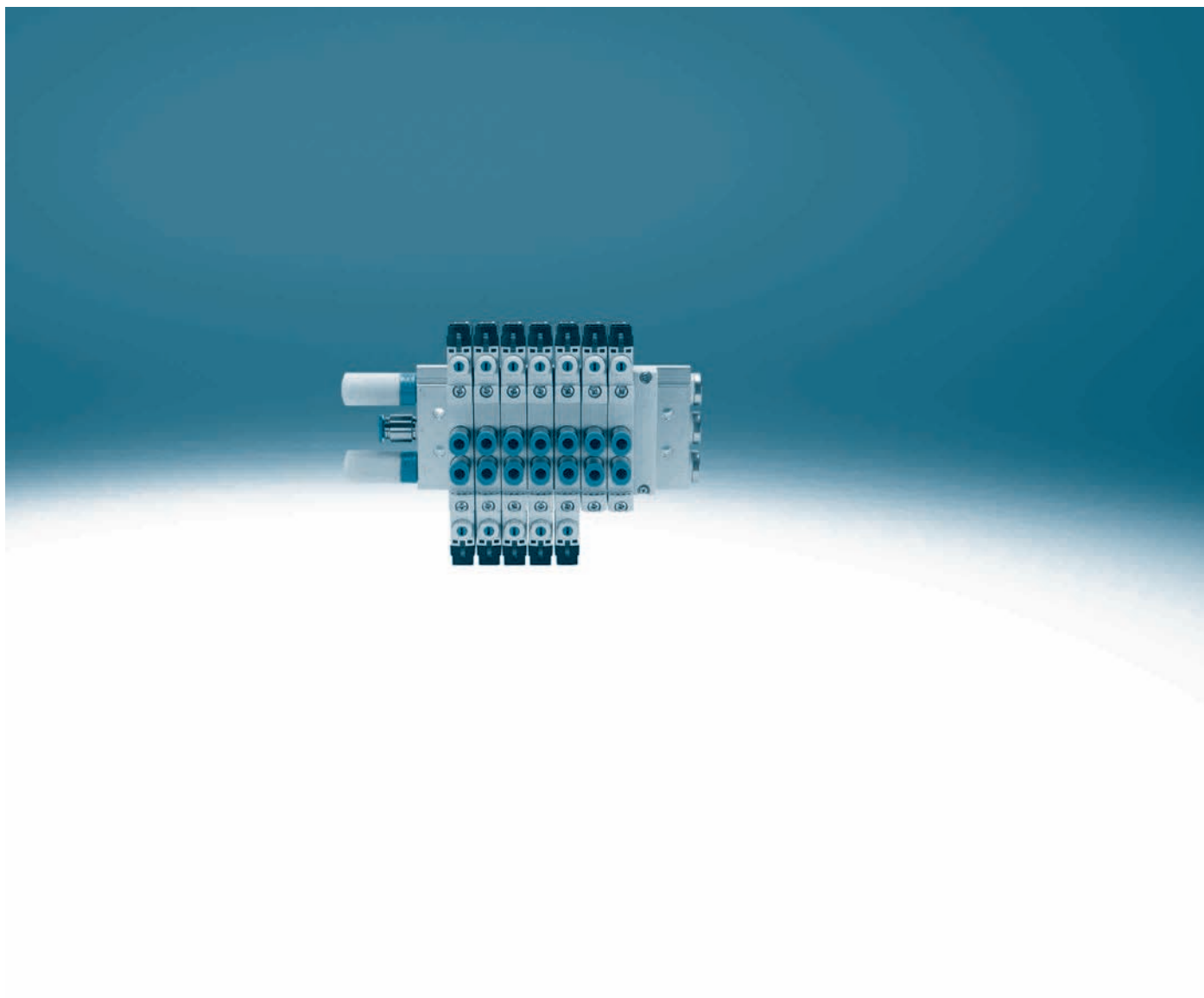


- 1 Vacuum generator
- 2 Distributor
- 4 Suction cup
- 5 Vacuum security valve ISV



5 Vacuum security valve ISV		
For vacuum port	Type	Part No.
Thread G1/8	ISV-1/8	33969
Thread G1/4	ISV-1/4	33970

Height compensator VAL		
For vacuum port	Type	Part No.
Thread G1/8	VAL-1/8-10	151210
Thread G1/4	VAL-1/4-20	151211



Standards-based directional control valves

Solenoid valve VSVA, ISO 1547-1 (2x3/2, 5/2, 5/3)

- ISO 15407-1
- Width of standard valves 18/26 mm, flow rate up to 1,100 l/min

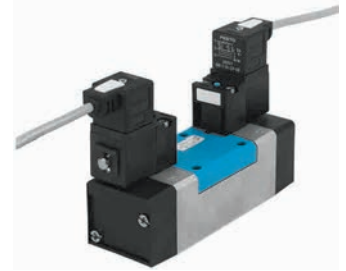
→ 91



Standard valves ISO 5599-1

- Connection
Solenoid valves MFH: G $\frac{1}{4}$, ISO1; G $\frac{3}{8}$, ISO2; G $\frac{1}{2}$, ISO3; G $\frac{3}{4}$, ISO4
- Flow rate
Solenoid valves MFH: 1,200 l/min
1,200 ... 6,000 l/min
- Voltage
Solenoid valves MFH: 12 V DC; 48 V AC
12, 24, 42, 48 V DC;
24, 48, 110, 230 V AC

→ 94

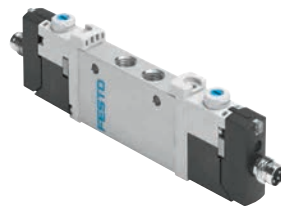


Universal directional control valves

Solenoid valve VUVG

- Width 10/14/18 mm, flow rate up to 1380 l/min
- Manifolds with pressure zones

→ 97



Solenoid valve VUVS

- Width of valves 20 (21 mm), 25 (26.5 mm), flow rate up to 1,300 l/min
- In-line valves can be used as individual valves or manifold valves
- Variable pressure zones

→ 101



Solenoid valve CPE, Compact Performance (3/2, 5/2, 5/3)

- Width 10/14/18/24 mm, flow rate up to 3,200 l/min
- Minimal flow resistance

→ cpe



Proportional valves

Proportional pressure regulator VPPM

- Flow rate 380 ... 7,000 l/min
- Pressure regulation range 0.02 ... 10 bar
- Choice of regulation characteristic
- Display optionally available

→ 104

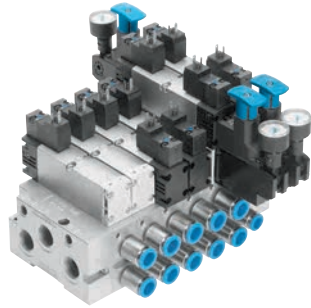


Proportional pressure regulator VPPE

- With pilot control via 2/2-way valves (switching valves)
- Pressure regulation ranges
0.15 ... 6 bar

→ 106





- Width of standard valves 18/26 mm, flow rate up to 1,100 l/min
- Manifold assembly with mixed sizes possible
- Electrical connection via round or square plug socket
- Complete and standardised valve range
- Wide range of vertical stacking modules: pressure regulator plate, flow control plate, vertical pressure shut-off plate, etc.

Type codes – Basic design

		VSVA	–	B	–		–		H	–		–	1		
Type															
VSVA	Solenoid valve to ISO 15407-1														
Design															
B	Sub-base valve														
Valve function															
T32C	2x 3/2-way valve, single solenoid, normally closed														
T32U	2x 3/2-way valve, single solenoid, normally open														
T32H	2x 3/2-way valve, single solenoid, 1x normally closed, 1x open														
M52	5/2-way valve, single solenoid														
B52	5/2-way valve, double solenoid														
D52	5/2-way valve, double solenoid, with dominant signal at 14														
P53C	5/3-way valve, mid-position closed														
P53E	5/3-way valve, mid-position exhausted														
P53U	5/3-way valve, mid-position open														
Reset method for single solenoid directional control valves															
–	Double solenoid and 5/3-way valve														
A	Pneumatic spring														
M	Mechanical spring														
Pilot air supply															
–	Internal														
Manual override															
H	Non-detenting														
Pneumatic connection															
A1	Port pattern to ISO size 26 mm (01)														
A2	Port pattern to ISO size 18 mm (02)														
Operating voltage															
1	24 V DC														
Electrical connection															
C1	Type C to EN 175301-803														
R2	Central plug M8x1														
R5	Central plug M12x1														
Display															
L	LED display														

Solenoid valves VSVA, to ISO 1547-1

Variants

Z External pilot air supply

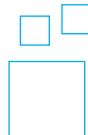
Operating voltages:

- 24/110/230 V AC
- 12 V DC

Electrical connection:

- Individual plug M12

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Electrical connection: central plug, round design, M8x1 (R2)/M12x1 (R5)

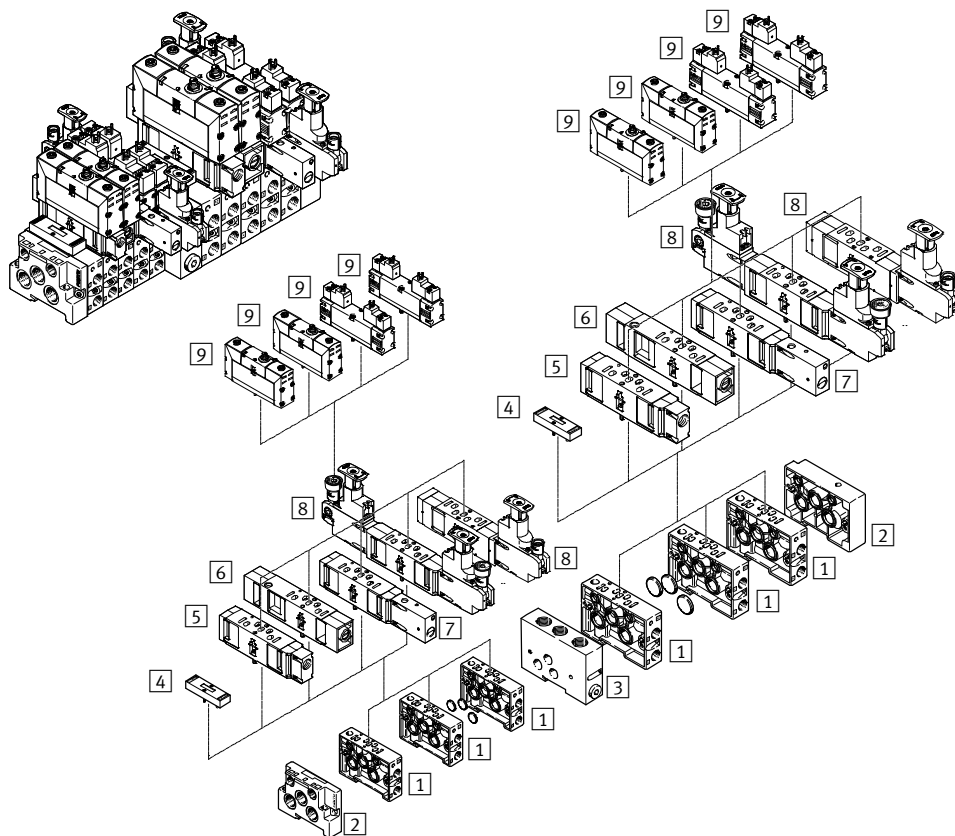
Valve function	Pneumatic connection A1		Pneumatic connection A2	
	Port pattern to ISO size 26 mm (01)		Port pattern to ISO size 18 mm (02)	
	Type	Part No.	Type	Part No.
2x3/2-way, single solenoid	Normally closed: T32C			
	VSVA-B-T32C-AH-A1-1R2L	534532	VSVA-B-T32C-AH-A2-1R2L	534771
	VSVA-B-T32C-AH-A1-1R5L	534552	VSVA-B-T32C-AH-A2-1R5L	546764
	Normally open: T32U			
	VSVA-B-T32U-AH-A1-1R2L	534533	VSVA-B-T32U-AH-A2-1R2L	534772
	VSVA-B-T32U-AH-A1-1R5L	534553	VSVA-B-T32U-AH-A2-1R5L	546765
	1x normally closed, 1x normally open: T32H			
	VSVA-B-T32H-AH-A1-1R2L	534534	VSVA-B-T32H-AH-A2-1R2L	534773
5/2-way, single solenoid	M52			
	VSVA-B-M52-AH-A1-1R2L	534535	VSVA-B-M52-AH-A2-1R2L	534774
	VSVA-B-M52-AH-A1-1R5L	534555	VSVA-B-M52-AH-A2-1R5L	546767
	VSVA-B-M52-MH-A1-1R2L	534536	VSVA-B-M52-MH-A2-1R2L	534775
	VSVA-B-M52-MH-A1-1R5L	534556	VSVA-B-M52-MH-A2-1R5L	546768
5/2-way, double solenoid	B52			
	VSVA-B-B52-H-A1-1R2L	534537	VSVA-B-B52-H-A2-1R2L	534776
	VSVA-B-B52-H-A1-1R5L	534557	VSVA-B-B52-H-A2-1R5L	546769
	With dominant signal at 14: D52			
	VSVA-B-D52-H-A1-1R2L	534538	VSVA-B-D52-H-A2-1R2L	534777
	VSVA-B-D52-H-A1-1R5L	534558	VSVA-B-D52-H-A2-1R5L	546770
5/3-way	Mid-position closed: P53C			
	VSVA-B-P53C-H-A1-1R2L	534539	VSVA-B-P53C-H-A2-1R2L	534778
	VSVA-B-P53C-H-A1-1R5L	534559	VSVA-B-P53C-H-A2-1R5L	546771
	Mid-position exhausted: P53E			
	VSVA-B-P53E-H-A1-1R2L	534540	VSVA-B-P53E-H-A2-1R2L	534779
	VSVA-B-P53E-H-A1-1R5L	534560	VSVA-B-P53E-H-A2-1R5L	546772
	Mid-position open: P53U			
	VSVA-B-P53U-H-A1-1R2L	534541	VSVA-B-P53U-H-A2-1R2L	534780
	VSVA-B-P53U-H-A1-1R5L	534561	VSVA-B-P53U-H-A2-1R5L	546773

Ordering data – Basic design

Electrical connection: plug, square design to EN 175301-803, type C (C1)

Valve function	Pneumatic connection A1	Pneumatic connection A2		
	Port pattern to ISO size 26 mm (01)	Port pattern to ISO size 18 mm (02)		
	Type	Part No.	Type	Part No.
5/2-way, single solenoid	M52			
	VSVA-B-M52-AH-A1-1C1	546700	VSVA-B-M52-AH-A2-1C1	546701
	VSVA-B-M52-MH-A1-1C1	546702	VSVA-B-M52-MH-A2-1C1	546703
5/2-way, double solenoid	B52			
	VSVA-B-B52-H-A1-1C1	546696	VSVA-B-B52-H-A2-1C1	546697
	With dominant signal at 14: D52			
5/3-way	VSVA-B-D52-H-A1-1C1	546698	VSVA-B-D52-H-A2-1C1	546699
	Mid-position closed: P53C			
	VSVA-B-P53C-H-A1-1C1	546708	VSVA-B-P53C-H-A2-1C1	546709
	Mid-position exhausted: P53E			
	VSVA-B-P53E-H-A1-1C1	546706	VSVA-B-P53E-H-A2-1C1	546707
	Mid-position open: P53U			
	VSVA-B-P53U-H-A1-1C1	546704	VSVA-B-P53U-H-A2-1C1	546705

Accessories



- 1 Manifold sub-base NAW with lateral ports 2 and 4 → 93
- 2 End plate kit NEV for sealing the manifold sub-bases → 93
- 3 Intermediate plate NZV for connecting width 18 mm with width 26 mm → [nzv](#)
- 4 Blanking plate NDV for vacant or spare positions → [ndv](#)
- 5 Vertical supply plate VABF...P1-A3 for intermediate air supply → [vabf](#)
- 6 Flow control plate VABF...F1-B1 for flow control in ducts 3 and 5 → [vabf](#)
- 7 Vertical pressure shut-off plate VABF...L1-D1 with switch for manual shut-off of duct 1 → [vabf](#)
- 8 Pressure regulator plate VABF...R...-C2 → [vabf](#)
- 9 Solenoid valve VSVA → 91
Individual sub-base NAS → 93

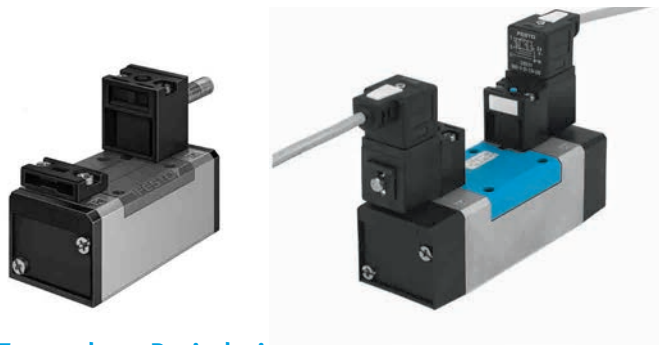
1 Manifold sub-base NAW with lateral ports 2 and 4		
For ISO size	Type	Part No.
26 mm	NAW-1/4-01-VDMA	161102
18 mm	NAW-1/8-02-VDMA	161110

Individual sub-base NAS		
For ISO size	Type	Part No.
26 mm	NAS-1/4-01-VDMA	161109
18 mm	NAS-1/8-02-VDMA	161115

2 End plate kit NEV		
For ISO size	Type	Part No.
26 mm	NEV-01-VDMA	161104
18 mm	NEV-02-VDMA	161112

Solenoid valves MFH, to ISO 5599-1

FESTO



- High-performance valves in a sturdy metal housing
- Electrical connection via F coil, to be ordered separately
- Manifold assembly
- Flow rate 1,200 l/min

- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

Type codes – Basic design

		MFH		–	D-1	–		–	C
Type									
MFH	Single solenoid								
Valve function									
5/2	5/2-way valve								
5/3E	5/3-way valve, mid-position exhausted								
Pneumatic port (width)									
D-1	Width 42 mm/ISO size 1								
Reset method 5/2-way valve									
–	Pneumatic spring								
FR	Mechanical spring								
Pilot air supply									
–	Internal								
Generation									
C	C series								

Variants

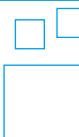
- Type:
- JM FH: Double solenoid
 - JMFDH: Double solenoid, with dominant signal at 14

- Valve function:
- 5/3G: 5/3-way valve, mid-position closed
 - 5/3B: 5/3-way valve, mid-position pressurised

- Pneumatic port (width):
- D-2: Width 52 mm/ISO size 2
 - D-3: Width 65 mm/ISO size 3

- Pilot air supply:
- S: external

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

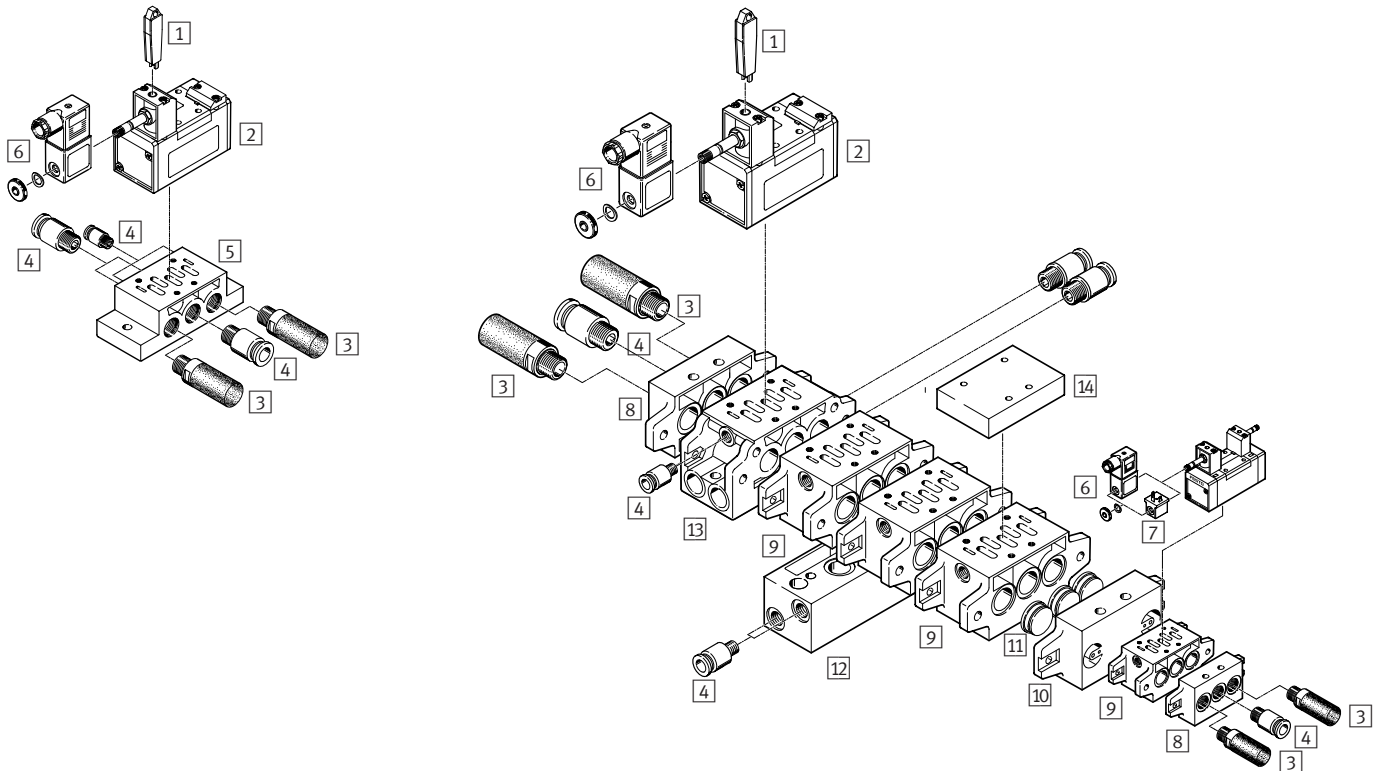
The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration
part number in the search field.

Ordering data – Basic design

Valve function	Width [mm]	Reset method	Pilot air supply	Type	Part No.
5/2-way single solenoid valve	42	Pneumatic spring	Internal	MFH-5/2-D-1-C	150981
	42	Mechanical spring	Internal	MFH-5/2-D-1-FR-C	151016
5/3-way valve, mid-position exhausted	42	Mechanical spring	Internal	MFH-5/3E-D-1-C	150983

Accessories



- 1 Manual override
AHB-MD/MF/MV → [ahb](#)
- 2 Solenoid valve MFH → 94
- 3 Silencer U → 175
- 4 Push-in fitting QS → 149

- 5 Individual sub-base NAS → 95
Individual sub-base NAU → 95
- 6 Solenoid coil MSFG → 95
- 7 Solenoid coil MSFG-OD → 95

- 8 End plate kit NEV → 95
- 9 Manifold sub-base NAV → 95
- 10 Intermediate plate NZV → [nzv](#)
- 11 Isolating disc NSC → [nsc](#)

- 12 90° connection plate NAW → [naw](#)
- 13 Manifold sub-base with 90° connections NAVW → 95
- 14 Regulator plate VABF-S1-...-R...
→ [vabf](#)
Regulator plate LR-ZP-... → [lr](#)

5 Individual sub-base NAS/NAU				
Width [mm]	Pneumatic port		Type	Part No.
	1, 2, 3, 4, 5	12, 14		
Ports at side				
42	G $\frac{1}{4}$	G $\frac{1}{8}$	NAS-1/4-1A-ISO	9484
Ports underneath				
42	G $\frac{1}{4}$	G $\frac{1}{8}$	NAU-1/4-1B-ISO	9485

6 Solenoid coil MSFG		
Voltage	Type	Part No.
With plug socket, plug pins with connection MSSD-F		
24 V DC ; 42 V AC/50 ... 60 Hz	MSFG-24/42-50/60	4527

7 Solenoid coil MSFG-OD		
Voltage	Type	Part No.
Without plug socket, plug pins with connection MSSD-F		
24 V DC ; 42 V AC/50 ... 60 Hz	MSFG-24/42-50/60-OD	34411
Without plug socket, plug connector to EN 175301-803, type A		
24 V DC ; 42 V AC/50 ... 60 Hz	MSFG-24/42-50/60-DS-OD	34412

8 End plate kit NEV			
Width [mm]	Pneumatic port	Type	Part No.
	1, 3, 5		
42	G $\frac{3}{8}$	NEV-1DA/DB-ISO	10174

9 Manifold sub-base NAV				
Width [mm]	Pneumatic port		Type	Part No.
	2, 4	12, 14		
Ports underneath				
42	G $\frac{1}{4}$	G $\frac{1}{8}$	NAV-1/4-1C-ISO	10173

13 Manifold sub-base with 90° connections NAVW				
Width [mm]	Pneumatic port		Type	Part No.
	2, 4	12, 14		
Ports at side and underneath				
42	G $\frac{1}{4}$	G $\frac{1}{8}$	NAVW-1/4-1-ISO	152789

Solenoid valves VUVG

FESTO

Designed for safe and easy handling: solenoid valve VUVG

The VUVG has been a huge success since it was introduced. This is due in no small part to its first-class pneumatic performance as well as numerous other technical refinements.

Integrated LED for 360° view
– convenient for a fast status
overview as well as reduced
downtimes.

Standard: the non-detenting/
detenting manual override for
easy commissioning.

Click! Simply snap it in and you are ready
to go. E-box with patented contact system.

Captive screws. Strong and
sturdy – with high torque for
secure mounting.

Imperial connections (inch sizes)
easily realised with hybrid fit-
tings.

Direction indicator: detent
for correct valve installation.

Positive-locking seal integra-
ted in the valve.

Make the most of the available ins-
tallation space with a host of con-
nection options and functions.

Several pressure zones can be
quickly and easily realised
with separators.

Highly flexible: individual valves can
be assembled in series without
separate manifold rail or brackets
thanks to the axial mounting bores.

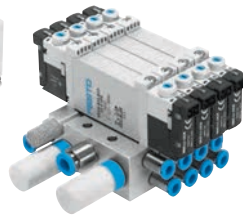
No additional components are requi-
red to turn the individual valve into a
valve manifold.



In-line valve VUVG-L10 with seal
VABD-L1-10X



Semi in-line valve VUVG-S10



Sub-base valve VUVG-B10

- Universal valve
- Basic valve and E-box combinations
- Width 10 mm, 14 mm and 18 mm
- Internal pilot air supply with VUVG-L
- Can be mounted as individual valve or sub-base valve on sturdy aluminium manifold rail
- Operating voltage 24 V DC

Type codes – Basic design

VUVG		-			-		-		-		-		
Type													
VUVG	Solenoid valve												
Valve design													
L	In-line valve/individual valve												
B	Sub-base valve												
S	Semi in-line valve												
Width													
10	10 mm												
14	14 mm												
18	18 mm												
Valve function													
T32C	2x3/2-way valve, normally closed												
T32U	2x3/2-way valve, normally open												
M52	5/2-way valve, single solenoid												
B52	5/2-way valve, double solenoid												
P53C	5/3-way valve, mid-position closed												
P53E	5/3-way valve, mid-position exhausted												
Reset method/pilot air supply/manual override													
AT	Pneumatic spring/internal/non-detenting, detenting												
RT	Pneumatic-mechanical spring/internal/non-detenting, detenting												
ZT	Without/external/non-detenting, detenting												
T	Without/internal/non-detenting, detenting												
AZT	Pneumatic spring/external/non-detenting, detenting												
RZT	Pneumatic-mechanical spring/external/non-detenting, detenting												
MT	Mechanical spring/internal/non-detenting, detenting												
Pneumatic connection													
M5	Thread M5												
M7	Thread M7												
G18	Thread G1/8												
G14	Thread G1/4												
F	In the manifold rail												
Operating voltage/E-box/Display													
1P3	24 V DC/without E-box/none												
1R8L	24 V DC/with E-box/LED												

Variants

Valve functions:

T32H 2x3/2-way valve, 1x normally closed, 1x normally open

P53U 5/3-way valve, mid-position pressurised

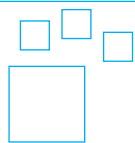
Operating voltage:

5 V DC, 12 V DC

Solenoid valves VUVG

FESTO

Ordering data – Variants

Configurable
productThis product and all its variants
can be ordered using the
configurator.The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...Enter the type or configuration
part number in the search field.

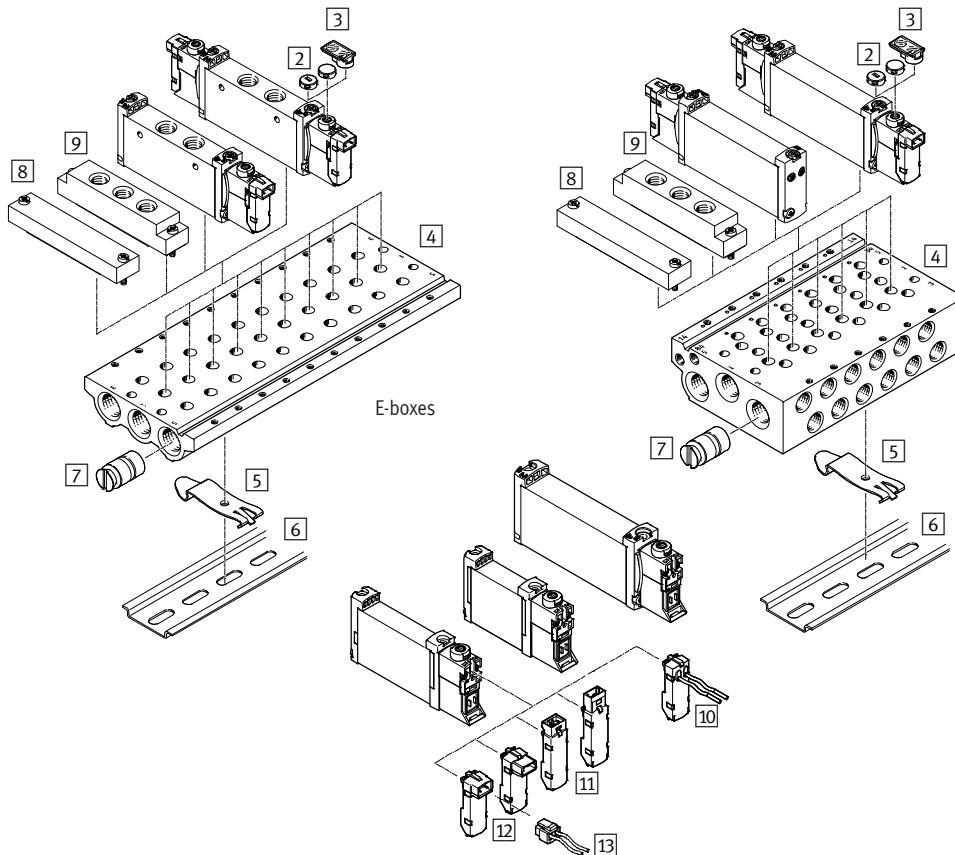
Ordering data – Basic design

Width [mm]	Type	Part No.	Type	Part No.	Type	Part No.
	T32C: 2x3/2-way, normally closed		T32U: 2x3/2-way, normally open		M52: 5/2-way, single solenoid	
In-line valve/individual valve						
10	VUVG-L10-T32C-AT-M5-1P3	566454	VUVG-L10-T32U-AT-M5-1P3	566455	VUVG-L10-M52-RT-M5-1P3	566457
	VUVG-L10-T32C-AT-M7-1P3	566471	VUVG-L10-T32U-AT-M7-1P3	566472	VUVG-L10-M52-RT-M7-1P3	566474
14	VUVG-L14-T32C-AT-G18-1P3	566496	VUVG-L14-T32U-AT-G18-1P3	566497	VUVG-L14-M52-AT-G18-1P3	566499
18	VUVG-L18-T32C-AT-G14-1P3	574422			VUVG-L18-M52-RT-G14-1P3	574428
In-line valve/individual valve with E-box R8						
10	VUVG-L10-T32C-AT-M5-1R8L	577347			VUVG-L10-M52-RT-M5-1R8L	572634
	VUVG-L10-T32C-AT-M7-1R8L	574218			VUVG-L10-M52-RT-M7-1R8L	574221
14	VUVG-L14-T32C-AT-G18-1R8L	574226			VUVG-L14-M52-AT-G18-1R8L	574229
18	VUVG-L18-T32C-AT-G14-1R8L	8031525			VUVG-L18-M52-RT-G14-1R8L	8031531
					VUVG-L18-M52-MT-G14-1R8L	8031532
Sub-base valve						
10	VUVG-B10-T32C-AZF-F-1P3	566487	VUVG-B10-T32U-AZF-F-1P3	566488	VUVG-B10-M52-RZF-F-1P3	566490
14	VUVG-B14-T32C-AZF-F-1P3	566513	VUVG-B14-T32U-AZF-F-1P3	566514	VUVG-B14-M52-AZF-F-1P3	566516
18	VUVG-B18-T32C-AZF-F-1P3	574443			VUVG-B18-M52-RZF-F-1P3	574449
Sub-base valve with E-box R8						
10	VUVG-B10-T32C-AZF-F-1R8L	574234			VUVG-B10-M52-RZF-F-1R8L	574237
14	VUVG-B14-T32C-AZF-F-1R8L	574242			VUVG-B14-M52-AZF-F-1R8L	574245
18	VUVG-B18-T32C-AZF-F-1R8L	8031537			VUVG-B18-M52-RZF-F-1R8L	8031543
	B52: 5/2-way, double solenoid		P53C: 5/3-way, mid-position closed		P53E: 5/3-way, mid-position exhausted	
In-line valve/individual valve						
10	VUVG-L10-B52-T-M5-1P3	566458	VUVG-L10-P53C-T-M5-1P3	566459	VUVG-L10-P53E-T-M5-1P3	566460
	VUVG-L10-B52-T-M7-1P3	566475	VUVG-L10-P53C-T-M7-1P3	566476	VUVG-L10-P53E-T-M7-1P3	566477
14	VUVG-L14-B52-T-G18-1P3	566500	VUVG-L14-P53C-T-G18-1P3	566501	VUVG-L14-P53E-T-G18-1P3	566502
18	VUVG-L18-B52-T-G14-1P3	574430	VUVG-L18-P53C-T-G14-1P3	574431		
In-line valve/individual valve with E-box R8						
10	VUVG-L10-B52-T-M5-1R8L	576664	VUVG-L10-P53C-T-M5-1R8L	577346		
	VUVG-L10-B52-T-M7-1R8L	574222	VUVG-L10-P53C-T-M7-1R8L	574223		
14	VUVG-L14-B52-T-G18-1R8L	574230	VUVG-L14-P53C-T-G18-1R8L	574231		
18			VUVG-L18-P53C-T-G14-1R8L	8031534		
Sub-base valve						
10	VUVG-B10-B52-ZT-F-1P3	566491	VUVG-B10-P53C-ZT-F-1P3	566492	VUVG-B10-P53E-ZT-F-1P3	566493
14	VUVG-B14-B52-ZT-F-1P3	566517	VUVG-B14-P53C-ZT-F-1P3	566518	VUVG-B14-P53E-ZT-F-1P3	566519
18	VUVG-B18-B52-ZT-F-1P3	574451	VUVG-B18-P53C-ZT-F-1P3	574452		
Sub-base valve with E-box R8						
10	VUVG-B10-B52-ZT-F-1R8L	574238	VUVG-B10-P53C-ZT-F-1R8L	574239		
14	VUVG-B14-B52-ZT-F-1R8L	574246	VUVG-B14-P53C-ZT-F-1R8L	574247		
18	VUVG-B18-B52-ZT-F-1R8L	8031545	VUVG-B18-P53C-ZT-F-1R8L	8031546		

Accessories

In-line valve VUVG-L with seal
VABD-L1-10X **1**

Sub-base valve VUVG-B



- 1** Seal VABD-L1-10X for in-line valve → 99
- 2** Cover VMPA-HBT-B for manual override, non-detenting → 99
- 3** Inscription label holder ASLR-D for labelling the valves, cover for mounting screw and manual override → 99
- 4** Manifold rail VABM for 2 to 10 valve positions → 100
- 5** H-rail mounting VAME-T-M4 for fitting the valve manifold on an H-rail → 99
- 6** H-rail NRH-35-2000 for mounting → nrh-35
- 7** Separator VABD-B for creating pressure zones → 100
- 8** Blanking plate VABB for covering an unused valve position → 100
- 9** Supply plate VABF → 100
E-boxes VAVE → 100
- 10** With flying leads → 100
- 11** With vertical plug → 100
- 12** With horizontal plug → 100
- 13** Plug socket with cable NEBV, open end → 100

1 Seal VABD-L1-10X

Size	Pneumatic connection	Type	Part No.
10	M5	VABD-L1-10X-S-M5	566672
10	M7	VABD-L1-10X-S-M7	566673
14	G $\frac{1}{8}$	VABD-L1-14X-S-G18	566675
18	G $\frac{1}{4}$	VABD-L1-18X-S-G14	574479
18	G $\frac{1}{4}$	VABD-L1-18B-S-G14	574480

2/3/5 Cover VMPA/inscription label ASLR/H-rail mounting VAME

Size	Type	Part No.
10, 14, 18	VMPA-HBT-B (10 pieces)	540897
10, 14, 18	ASLR-D-L1 (10 pieces)	570818
10, 14 18	VAME-T-M4 (2 pieces)	569998

Solenoid valves VUVG

FESTO

Accessories

4 Manifold rail VABM				
Size	Connection ¹⁾	Valve positions	Type	Part No.
For individual valve VUVG-L with seal VABD-L1-10X 1				
10	M5/M7	2	VABM-L1-10S-G18-2	566558
		3	VABM-L1-10S-G18-3	566559
		4	VABM-L1-10S-G18-4	566560
		6	VABM-L1-10S-G18-6	566562
		8	VABM-L1-10S-G18-8	566564
		10	VABM-L1-10S-G18-10	566566
14	G1¼	2	VABM-L1-14S-G14-2	566618
		3	VABM-L1-14S-G14-3	566619
		4	VABM-L1-14S-G14-4	566620
		6	VABM-L1-14S-G14-6	566622
		8	VABM-L1-14S-G14-8	566624
		10	VABM-L1-14S-G14-10	566626
18	G3⁄8	2	VABM-L1-18S-G38-2	574455
		3	VABM-L1-18S-G38-3	574456
		4	VABM-L1-18S-G38-4	574457
		6	VABM-L1-18S-G38-6	574459
		8	VABM-L1-18S-G38-8	574461
		10	VABM-L1-18S-G38-10	574463
For sub-base valve VUVG-B				
10	M5	2	VABM-L1-10W-G18-2	566582
		3	VABM-L1-10W-G18-3	566583
		4	VABM-L1-10W-G18-4	566584
		6	VABM-L1-10W-G18-6	566586
		8	VABM-L1-10W-G18-8	566588
		10	VABM-L1-10W-G18-10	566590
	M7	2	VABM-L1-10HW-G18-2	566606
		3	VABM-L1-10HW-G18-3	566607
		4	VABM-L1-10HW-G18-4	566608
		6	VABM-L1-10HW-G18-6	566610
		8	VABM-L1-10HW-G18-8	566612
		10	VABM-L1-10HW-G18-10	566614
14	G1⁄8	2	VABM-L1-14W-G18-2	566642
		3	VABM-L1-14W-G18-3	566643
		4	VABM-L1-14W-G18-4	566644
		6	VABM-L1-14W-G18-6	566646
		8	VABM-L1-14W-G18-8	566648
		10	VABM-L1-14W-G18-10	566650
18	G3⁄8	2	VABM-L1-18W-G38-2	574467
		3	VABM-L1-18W-G38-3	574468
		4	VABM-L1-18W-G38-4	574469
		6	VABM-L1-18W-G38-6	574471
		8	VABM-L1-18W-G38-8	574473
		10	VABM-L1-18W-G38-10	574475

1) VABM-L1-...S: supply ports 1, 3, 5
VABM-L1-...W, VABM-L1-...HW: working ports 2, 4

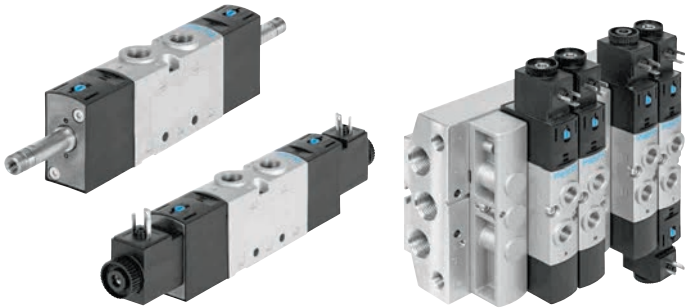
7 Separator VABD-B		
Size	Type	Part No.
For individual valve VUVG-L		
10	VABD-8-B	569995
14	VABD-10-B	569996
For sub-base valve VUVG-B		
10	VABD-6-B	569994
14	VABD-10-B	569996

8 Cover plate VABB		
Size	Type	Part No.
For individual valve VUVG-L		
10	VABB-L1-10-S	566462
14	VABB-L1-14	569989
18	VABB-L1-18	574482
For sub-base valve VUVG-B		
10	VABB-L1-10-W	566495
14	VABB-L1-14	569989

9 Supply plate VABF			
Size	Connection	Type	Part No.
For individual valve VUVG-L			
10	M5	VABF-L1-10-P3A4-M5	569991
10	M7	VABF-L1-10-P3A4-M7	569992
14	G1/8	VABF-L1-14-P3A4-G18	569993
For sub-base valve VUVG-B			
10	M5	VABF-L1-10-P3A4-M5	569991
14	G1/8	VABF-L1-14-P3A4-G18	569993
18	G1/4	VABF-L1-18-P3A4-G14	574481

10/11/12 E-boxes VAVE		
Description	Type	Part No.
10 With flying leads, LED, protective circuit		
0.5 m, 24 and 12 V DC	VAVE-L1-1VL1-LP	566722
1 m	VAVE-L1-1VL2-LP	566723
2.5 m	VAVE-L1-1VL3-LP	566724
11 Vertical plug, LED, protective circuit		
24 and 12 V DC	VAVE-L1-1VH3-LP	566715
12 Horizontal plug, LED, protective circuit		
24 and 12 V DC	VAVE-L1-1VH2-LP	566714

13 Plug socket with cable NEBV			
Description	Cable length	Type	Part No.
Straight socket, 2-pin			
Flying leads, open end	0.5 m	NEBV-H1G2-KN-0.5-LE	566654
	1 m	NEBV-H1G2-KN-1-LE2	566655
	2.5 m	NEBV-H1G2-KN-2.5-LE	566656
Individual cable, 0.5 m, open end, 2-pin	0.5 m	NEBV-H1G2-P-0.5-LE2	566658
	1 m	NEBV-H1G2-P-1-LE2	566659
	2.5 m	NEBV-H1G2-P-2.5-LE2	566660



- Width of valves 20 (21 mm), 25 (26.5 mm), flow rate up to 1,300 l/min
- In-line valves can be used as individual valves or manifold valves
- Variable pressure zones

Type codes – Basic design

VUVS		-	L	-		-		-		-		-	1	
Type														
VUVS	Solenoid valve													
Valve design														
L	In-line valve													
Width														
20	21 mm													
25	26.5 mm													
Valve function														
M32C	3/2-way valve, single-solenoid, closed													
M52	5/2-way valve, single-solenoid													
B52	5/2-way valve, double-solenoid													
P53C	5/3-way valve, mid-position closed													
Reset method/pilot air supply/manual override														
D	Without/internal/non-detenting, without accessories													
MD	Mechanical spring/internal/non-detenting, without accessories													
Pneumatic connection														
G18	Thread G1/8													
G14	Thread G1/4													
Valve pilot control interface														
F7	With 8 mm armature tube, short													
F8	With 8 mm armature tube, standard													
Nominal operating voltage														
1	24 V DC													
Electrical connection														
-	None													
C1	Connection arrangement type C, to EN 175 301													
B2	Connection arrangement type B, industry standard													

Variants

Valve functions:

M32U: 3/2-way valve, single-solenoid, open

P53U: 5/3-way valve, pressurised

P53E: 5/3-way valve, exhausted

Reset method:

A A: pneumatic spring for M52 and M32

External pilot air supply:

Z External

Manual override:

S Covered

H Non-detenting

Pneumatic connection:

1/8NPT, 1/4NPT, push-in connector 4 ... 10 mm, push-in connector 5/32" ... 3/8"

Exhaust:

QN With threaded connection

U1 Pneumatic silencer with metal housing

U3 Pneumatic silencer with polymer housing

Nominal operating voltage:

224 V AC, 230 V AC, 230/240 V AC, 12 V DC, 110/120 V AC

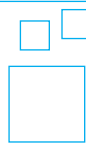
Degree of protection for electrics:

S8 IP67

Solenoid valves VUVS

FESTO

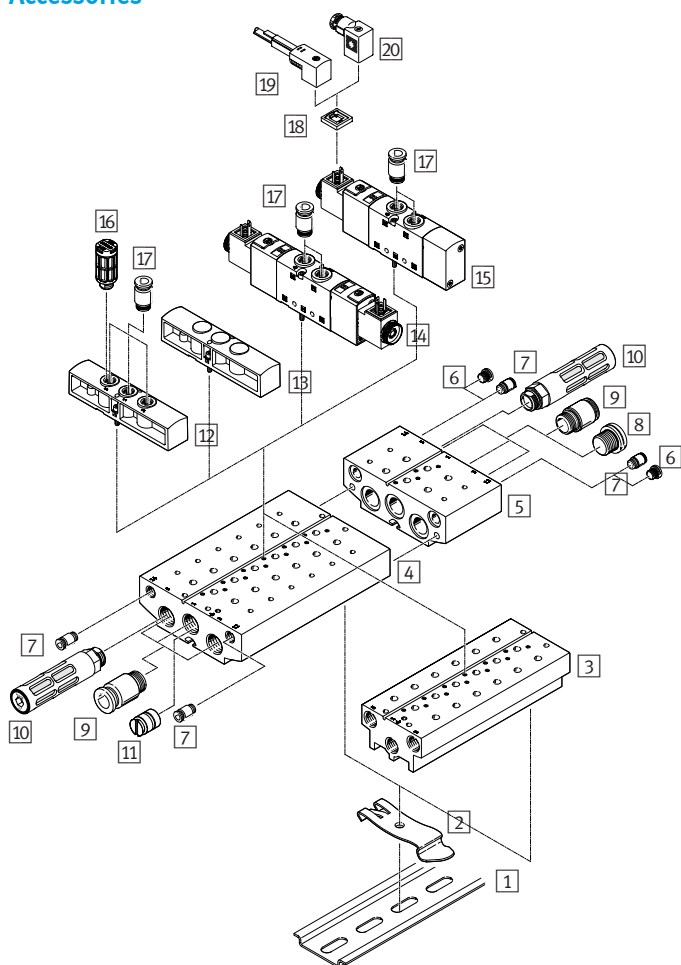
Ordering data – Variants

Configurable
productThis product and all its variants
can be ordered using the
configurator.The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...Enter the type or configuration
part number in the search field.

Ordering data – Basic design

Electrical connection		Port pattern type C, to EN 175 301		Port pattern type B, industry standard	
Width	Type	Part No.	Type	Part No.	
3/2-way valve, single-solenoid, closed					
20 (21 mm)	VUVS-L20-M32C-MD-G18-F7-1C1	575274			
25 (26.5 mm)	VUVS-L25-M32C-MD-G14-F8-1C1	575477	VUVS-L25-M32C-MD-G14-F8-1B2		575481
5/2-way valve, single-solenoid					
20 (21 mm)	VUVS-L20-M52-MD-G18-F7-1C1	575264			
25 (26.5 mm)	VUVS-L25-M52-MD-G14-F8-1C1	575511	VUVS-L25-M52-MD-G14-F8-1B2		575513
5/2-way valve, double-solenoid					
20 (21 mm)	VUVS-L20-B52-D-G18-F7-1C1	575265			
25 (26.5 mm)	VUVS-L25-B52-D-G14-F8-1C1	575518	VUVS-L25-B52-D-G14-F8-1B2		575520
5/3-way valve, closed					
20 (21 mm)	VUVS-L20-P53C-MD-G18-F7-1C1	575268			
25 (26.5 mm)	VUVS-L25-P53C-MD-G14-F8-1C1	575525	VUVS-L25-P53C-MD-G14-F8-1B2		575527

Accessories



- 1 H-rail NRH-35-2000 → [nrh](#)
- 2 Hat-rail mounting VAME-T-M4 → [vame](#)
- 3 Manifold block, compact VABM-B10-20S → 103
- 4 Manifold block, standard VABM-B10-20E → [vabm-b10](#)
- 5 Extension module for standard manifold block VABM-B10-20EEE → [vabm-b10-eee](#)
- 6 Blanking plug B with connecting thread → [b-1/8](#)
- 7 Push-in fitting QS → 149
- 8 Blanking plug B with connecting thread → [b-1/8](#)
- 9 Push-in fitting QS → 149
- 10 Silencer U → 175
- 11 Separator VABD → [vabd](#)
- 12 Supply plate VABF-B10-20-P1A4 → [vabf](#)
- 13 Blanking plate VABB-B10-20 → [vabb](#)
- 14 Solenoid valve VUVS, 5/3-way valve and 5/2-way valve double-solenoid, with solenoid coil
- 15 Solenoid valve VUVS, 5/2-way valve single solenoid, with solenoid coil
- 16 Silencer U → 175
- 17 Push-in fitting QS → 149
- 18 Illuminating seal MEB-LD → [meb](#)
- 19 Connecting cable KMEB → 103
- Plug socket with cable KMF → 94
- 20 Plug socket MSSD → 103

Solenoid coil VACS-C, VACF-B → 103

Accessories

3 Manifold block, compact VABM-B10-20S/VABM-B10-25S				
Width	Pneumatic connection	Valve positions	Type	Part No.
For 3/2-way valves, incl. seals and screws for valve assembly				
20 (21 mm)	G1/4	2	VABM-B10-20S-G14-2-P3	576465
		3	VABM-B10-20S-G14-3-P3	576466
		4	VABM-B10-20S-G14-4-P3	576467
		6	VABM-B10-20S-G14-6-P3	576469
		8	VABM-B10-20S-G14-8-P3	576471
		10	VABM-B10-20S-G14-10-P3	576473
25 (26.5 mm)	G3/8	2	VABM-B10-25S-G38-2-P3	8026297
		3	VABM-B10-25S-G38-3-P3	8026298
		4	VABM-B10-25S-G38-4-P3	8026299
		6	VABM-B10-25S-G38-6-P3	8026301
		8	VABM-B10-25S-G38-8-P3	8026303
		10	VABM-B10-25S-G38-10-P3	8026305
For 5/2 and 5/3-way valves, incl. seals and screws for valve assembly				
20 (21 mm)	G1/4	2	VABM-B10-20S-G14-2	576417
		3	VABM-B10-20S-G14-3	576418
		4	VABM-B10-20S-G14-4	576419
		6	VABM-B10-20S-G14-6	576421
		8	VABM-B10-20S-G14-8	576423
		10	VABM-B10-20S-G14-10	576425
25 (26.5 mm)	G3/8	2	VABM-B10-25S-G38-2	8026261
		3	VABM-B10-25S-G38-3	8026262
		4	VABM-B10-25S-G38-4	8026263
		6	VABM-B10-25S-G38-6	8026265
		8	VABM-B10-25S-G38-8	8026267
		10	VABM-B10-25S-G38-10	8026269
Common supply manifold for mounting on both sides, incl. seals and screws for valve assembly				
20 (21 mm)	G3/8	2	VABM-B10-20-G38-2-P53	576363
		3	VABM-B10-20-G38-3-P53	576364
		4	VABM-B10-20-G38-4-P53	576365
		6	VABM-B10-20-G38-6-P53	576367
		8	VABM-B10-20-G38-8-P53	576369
		10	VABM-B10-20-G38-10-P53	576371
25 (26.5 mm)	G1/2	2	VABM-B10-25-G12-2-P53	8026219
		3	VABM-B10-25-G12-3-P53	8026220
		4	VABM-B10-25-G12-4-P53	8026221
		6	VABM-B10-25-G12-6-P53	8026223
		8	VABM-B10-25-G12-8-P53	8026225
		10	VABM-B10-25-G12-10-P53	8026227

[19] Connecting cable KMEB			
Description	Cable length	Type	Part No.
Angled socket, 2-pin, 24 V DC, type C			
With LEDs and protective circuit	2.5 m	KMEB-3-24-2,5-LED	547268
	5 m	KMEB-3-24-5-LED	547269

[19] Plug socket with cable KMF			
Description	Cable length	Type	Part No.
Socket, 24 V DC, pre-assembled, for F solenoids			
With LED	2.5 m	KMF-1-24DC-2,5-LED	30935
	5 m	KMF-1-24DC-5-LED	30937

[20] Plug socket MSSD		
Description	Type	Part No.
Angled socket, 3-pin, square plug type C		
Screw terminal	MSSD-EB	151687
Angled socket, 3-pin, square design MSF		
Screw terminal	MSSD-F	34431

Solenoid coil VACS-C		
Description	Type	Part No.
Connection arrangement type C, to EN 175 301		
12 V DC	VACS-C-C1-5	8025331
24 V DC	VACS-C-C1-1	8025330
48 V DC	VACS-C-C1-7	8025336
24 V AC; 50/60 Hz	VACS-C-C1-1A	8025335
48 V AC; 50/60 Hz	VACS-C-C1-7A	8025337
110/120 V AC; 50/60 Hz	VACS-C-C1-16B	8025334
230/240 V AC; 50/60 Hz	VACS-C-C1-3W	8025338

Solenoid coil VACF-B		
Description	Type	Part No.
Connection arrangement type B, industry standard		
12 V DC	VACF-B-B2-5	8030801
24 V DC	VACF-B-B2-1	8030802
48 V DC	VACF-B-B2-7	8030803
24 V AC; 50/60 Hz	VACF-B-B2-1A	8030804
48 V AC; 50/60 Hz	VACF-B-B2-7A	8030805
110/120 V AC; 50/60 Hz	VACF-B-B2-16B	8030806
230/240 V AC; 50/60 Hz	VACF-B-B2-3W	8030808
Connection arrangement type C, to EN 175 301		
12 V DC	VACF-B-C1-5	8030810
24 V DC	VACF-B-C1-1	8030811
48 V DC	VACF-B-C1-7	8030812
24 V AC; 50/60 Hz	VACF-B-C1-1A	8030813
48 V AC; 50/60 Hz	VACF-B-C1-7A	8030814
110/120 V AC; 50/60 Hz	VACF-B-C1-16B	8030815
230/240 V AC; 50/60 Hz	VACF-B-C1-3W	8030817

Proportional pressure regulators VPPM

FESTO



- Flow rate 380 ... 7,000 l/min
- Pressure regulation range 0.02 ... 10 bar
- Choice of regulation characteristic
- Display optionally available

Type codes – Basic design

VPPM		–		L	–	L – 1	–		–	OL	–		–	P	–		
Type																	
VPPM	Modular proportional pressure regulator																
Nominal width																	
6	6 mm																
8	8 mm																
12	12 mm																
Design																	
L	In-line valve																
Dynamic response class																	
L	Low																
Valve function																	
1	3/2-way valve, normally closed																
Pneumatic connection																	
G18	Thread G1/8																
G14	Thread G1/4																
G12	Thread G1/2																
Lower pressure value of control range																	
OL	0 bar																
Upper pressure value of control range																	
6H	6 bar																
10H	10 bar																
Setpoint specification for individual valve																	
V1	0 ... 10 V																
A4	4 ... 20 mA																
Switching output																	
P	Positive switching																
Accuracy																	
–	2% (standard)																
S1	1%																
Operator unit																	
–	LED (standard)																
C1	With LCD, pressure unit variable																

Variants

Design

- F Flange valve
T Flange valve for valve terminal

Mounting method

- A Valve terminal MPA
C H-rail
P Supply manifold PR

Pneumatic connection

- F Flange/ sub-base

Alternative lower pressure value of regulation range

... L 0 ... 9 bar

Alternative upper pressure value of regulation range

... L 0,2 ... 10 bar

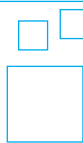
Setpoint specification for individual valve

LK IO-Link

Switching output

N NPN switching

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

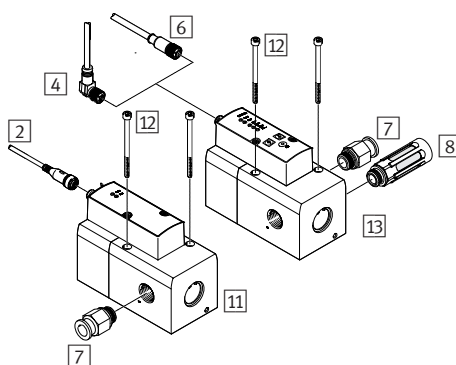
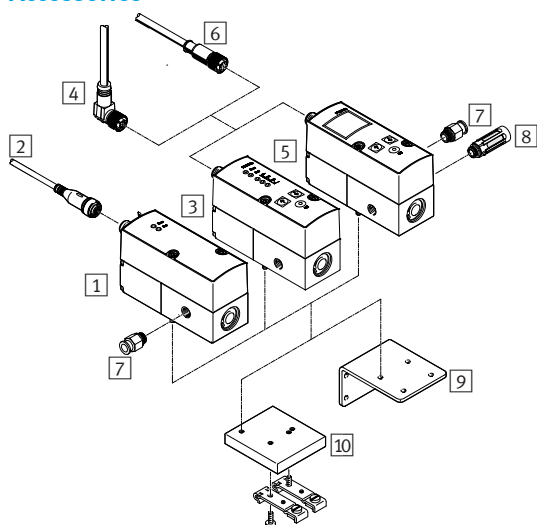
The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

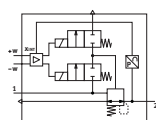
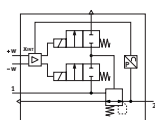
Accuracy	Pneumatic connection 1, 2, 3	Pressure regulation range [bar]	Operator unit	Type	Part No.
Voltage type 0 ... 10 V					
2%	G ¹ / ₈	0.06 ... 6	LED (standard)	VPPM-6L-L-1-G18-0L6H-V1P	554043
			With LCD	VPPM-6L-L-1-G18-0L6H-V1P-C1	558337
		0.1 ... 10	LED (standard)	VPPM-6L-L-1-G18-0L10H-V1P	554044
			With LCD	VPPM-6L-L-1-G18-0L10H-V1P-C1	575125
1%	G ³ / ₄	0.06 ... 6	LED (standard)	VPPM-8L-L-1-G14-0L6H-V1PS1	571297
			With LCD	VPPM-8L-L-1-G14-0L6H-V1PS1C1	571298
		0.1 ... 10	LED (standard)	VPPM-8L-L-1-G14-0L10H-V1PS1	571292
			With LCD	VPPM-8L-L-1-G14-0L10H-V1PS1C1	571293
	G ¹ / ₂	0.06 ... 6	LED (standard)	VPPM-12L-L-1-G12-0L6H-V1PS1	575240
			With LCD	VPPM-12L-L-1-G12-0L6H-V1PS1C1	575241
		0.1 ... 10	LED (standard)	VPPM-12L-L-1-G12-0L10H-V1PS1	575236
			With LCD	VPPM-12L-L-1-G12-0L10H-V1PS1C1	575237
Current type 4 ... 20 mA					
2%	G ¹ / ₈	0.06 ... 6	LED (standard)	VPPM-6L-L-1-G18-0L6H-A4P	554045
			With LCD	VPPM-6L-L-1-G18-0L6H-A4P-C1	558338
		0.1 ... 10	LED (standard)	VPPM-6L-L-1-G18-0L10H-A4P	554046
1%	G ³ / ₄	0.06 ... 6	LED (standard)	VPPM-8L-L-1-G14-0L6H-A4P-S1	571300
			With LCD	VPPM-8L-L-1-G14-0L6H-A4P-S1C1	571301
		0.1 ... 10	LED (standard)	VPPM-8L-L-1-G14-0L10H-A4P-S1	571289
			With LCD	VPPM-8L-L-1-G14-0L10H-A4P-S1C1	571290
	G ¹ / ₂	0.06 ... 6	LED (standard)	VPPM-12L-L-1-G12-0L6H-A4P-S1	575242
			With LCD	VPPM-12L-L-1-G12-0L6H-A4P-S1C1	575243
		0.1 ... 10	LED (standard)	VPPM-12L-L-1-G12-0L10H-A4P-S1	575233
			With LCD	VPPM-12L-L-1-G12-0L10H-A4P-S1C1	575234

Accessories



- 1 Proportional pressure regulator VPPM-6L, VPPM-8 L; operator unit with LED, IO-Link → 104
- 2 Connecting cable NEDU-M12W5-...
→ [nedu](#)
- 3 Proportional pressure regulator VPPM-6L, VPPM-8 L; operator unit with LED → 104
- 4 Plug socket with cable, angled NEBU-M12W8-... → [nebu](#)
- 5 Proportional pressure regulator VPPM-6L, VPPM-8L; operator unit with LCD → 104
- 6 Straight plug socket with cable SIM-M12-8GD-... → [sim-m12](#)
- 7 Push-in fitting QS → 149
- 8 Silencer U → 175
- 9 Mounting bracket VAME-P1-A
→ [vame](#)
- 10 H-rail mounting kit VAME-P1-T
→ [vame](#)
- 11 Proportional pressure regulator VPPM-12L; operator unit with LED, IO-Link → 104
- 12 Mounting screws
- 13 Proportional pressure regulator VPPM-12L; operator unit with LED or LCD → 104

Proportional pressure regulators VPPE



- Optional setpoint module
- Connection size G $\frac{1}{8}$

Type codes – Basic design

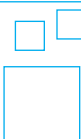
Type		VPPE	-		-	1/8	-		-		-
VPPE		Proportional pressure regulator with switching valve head									
Valve function											
	Without display	With display									
3	3-way pressure regulator, normally closed	-									
3 - 1	-	3-way pressure regulator, normally closed									
Pneumatic connection											
1/8	Female thread G $\frac{1}{8}$										
Pressure regulation range											
	Without display	With display									
2	-	0.02 ... 2 bar									
6	0 ... 6 bar	0.06 ... 6 bar									
10	-	0.1 ... 10 bar									
Analogue setpoint input											
	Without display	With display									
010	0 ... 10 V	0 ... 10 V									
420	-	4 ... 20 mA									
Operator unit											
	Without display	With display									
E1	-	Segmented LED display									
Mounting method											
	In-line valve										

Variants

Mounting method

- T Mounting on common supply manifold

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

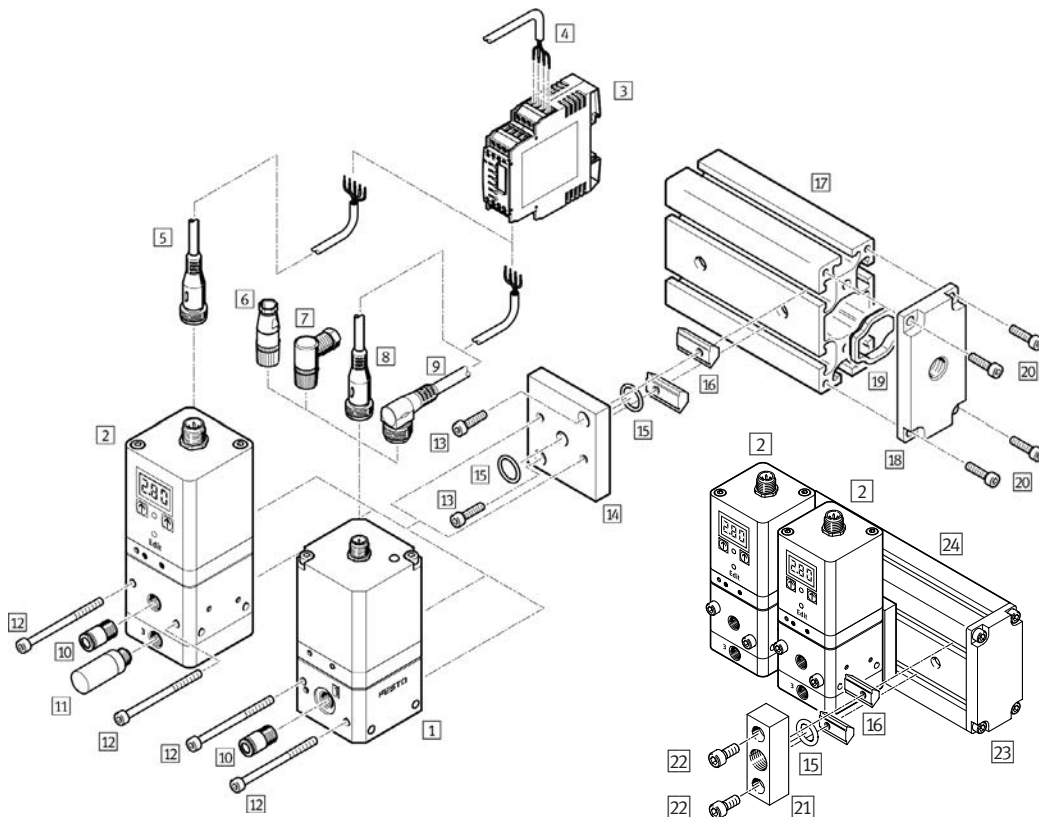
The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Pressure regulation range [bar]	Voltage type 0 ... 10 V		Current type 4 ... 20 mA	
	Type	Part No.	Type	Part No.
Without display				
0 ... 6	VPPE-3-1/8-6-010	539639		
With display				
0.02 ... 2	VPPE-3-1-1/8-2-010-E1	557771	VPPE-3-1-1/8-2-420-E1	557774
0.06 ... 6	VPPE-3-1-1/8-6-010-E1	557772	VPPE-3-1-1/8-6-420-E1	557775
0.1 ... 10	VPPE-3-1-1/8-10-010-E1	557773	VPPE-3-1-1/8-10-420-E1	557776

Accessories



- 1 Proportional pressure regulator VPPE
- 2 Proportional pressure regulator with display VPPE-E1
- 3 Setpoint module MPZ for generating 6+1 analogue voltage signals
→ [mpz](#)
- 4 Digital input/output for actuating the setpoint module MPZ
- 5 Connecting cable SIM-M12-5GD → 108
- 6 Plug socket SIE-GD: straight socket for actuating the VPPE → [sie-gd](#)
- 7 Plug socket SIE-WD-TR: angled socket for actuating the VPPE
→ [sie-wd-tr](#)
- 8 Plug socket with cable SIM-M12-4GD → 108
- 9 Plug socket with cable SIM-M12-4WD → 108
- 10 Push-in fitting QS for standard O.D. tubing → 149
- 11 Silencer U for fitting in exhaust ports → 175

- 12 Socket head screw M4x55 (Set)
- 13 Socket head screw M4x16 (Set)
- 14 Mounting plate (set) VAME-P5-MK → 108
- 15 O-ring (set)
- 16 Slot nuts (set)
- 17 Mounting rail HMBS → [hmbs](#)
- 18 Compressed air supply plate (set) VABF-P5-P3A3 → 108
- 19 Seal (set)
- 20 Socket head screw M5x12 (Set)
- 21 Additional power supply module (set) VABF-P5-P1A3 → 108
- 22 Socket head screw M6x20 (Set)
- 23 End plate (set) VABE-P5-C → 108
- 24 Mounting rail (set)

Proportional pressure regulators VPPE

FESTO

Accessories

[5] Connecting cable SIM-M12-5GD for VPPE-E1 with display

Description	Type	Part No.
Straight socket, 5-pin, M12x1, cable length 2.5 m	SIM-M12-5GD-2,5-PU	175715
Straight socket, 5-pin, M12x1, cable length 5 m	SIM-M12-5GD-5-PU	175716

[8] Plug socket with cable SIM-M12-4GD for VPPE without display

Description	Type	Part No.
Straight socket, 4-pin, M12x1, cable length 5 m	SIM-M12-4GD-5-PU	164259

[9] Plug socket with cable SIM-M12-4WD for VPPE without display

Description	Type	Part No.
Angled socket, 4-pin, M12x1, cable length 5 m	SIM-M12-4WD-5-PU	164258

[14] Mounting plate set VAME-P5-MK

Description	Type	Part No.
To mount the VPPE on the mounting rail	VAME-P5-MK	570966

[18] Compressed air supply plate set VABF-P5-P3A3

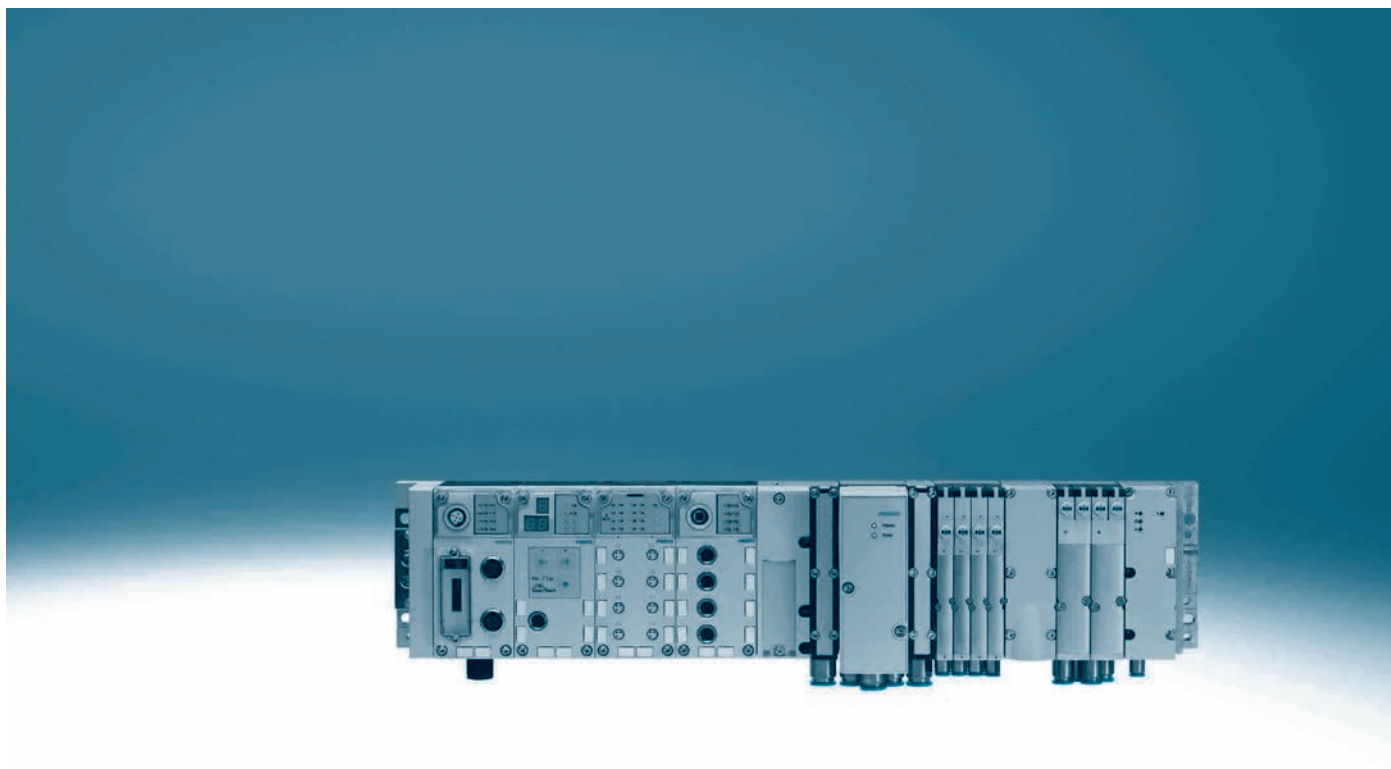
Description	Type	Part No.
With connecting thread G $\frac{1}{4}$	VABF-P5-P3A3-G14	8021859
With connecting thread G $\frac{3}{8}$	VABF-P5-P3A3-G38	8021860
With connecting thread G $\frac{1}{2}$	VABF-P5-P3A3-G12	8021861

[21] Additional power supply module set VABF-P5-P1A3

Description	Type	Part No.
Connection G $\frac{1}{4}$	VABF-P5-P1A3-G14	8021862
Connection G $\frac{3}{8}$	VABF-P5-P1A3-G38	8021863

[23] End plate set closed VABE-P5-C

Description	Type	Part No.
For sealing the mounting rail	VABE-P5-C	8021858

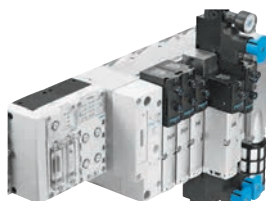


Standards-based valve terminals

Valve terminal VTSA/VTSA-F

- ISO 15407-2/ISO 5599-2
- Width of standard valves 18/26/42/52 mm, flow rate up to 2,900 l/min

→ [vtsa](#)



Universal valve terminals

Valve terminal MPA-S

- Valve width 10/20 mm, flow rates up to 700 l/min
- Electrical connection: multi-pin plug, AS-Interface, CPI, fieldbus

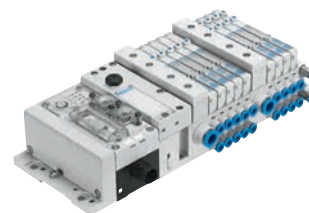
→ [mpa-s](#)



Valve terminal MPA-L

- Valve width 10 mm, flow rate up to 360 l/min
- Electrical connection: multi-pin plug, CPX fieldbus connection
- Fast self-assembly possible

→ [mpa-l](#)



Valve terminal CPV

Compact Performance

- Width 10/14/18 mm, flow rate up to 1,600 l/min
- Maximum flow with minimum space requirement

→ [cpv](#)



Valve terminal VTUG

- Width 10/14 mm
- Flow rate up to 700 l/min
- Modern and low-cost

→ [vtug](#)



Electrical peripherals

Electrical terminal CPX

- Unique modular design
- Comprehensive function integration and diagnostics
- CPX controls MPA, VTSA, Motion Control

→ [cpx](#)

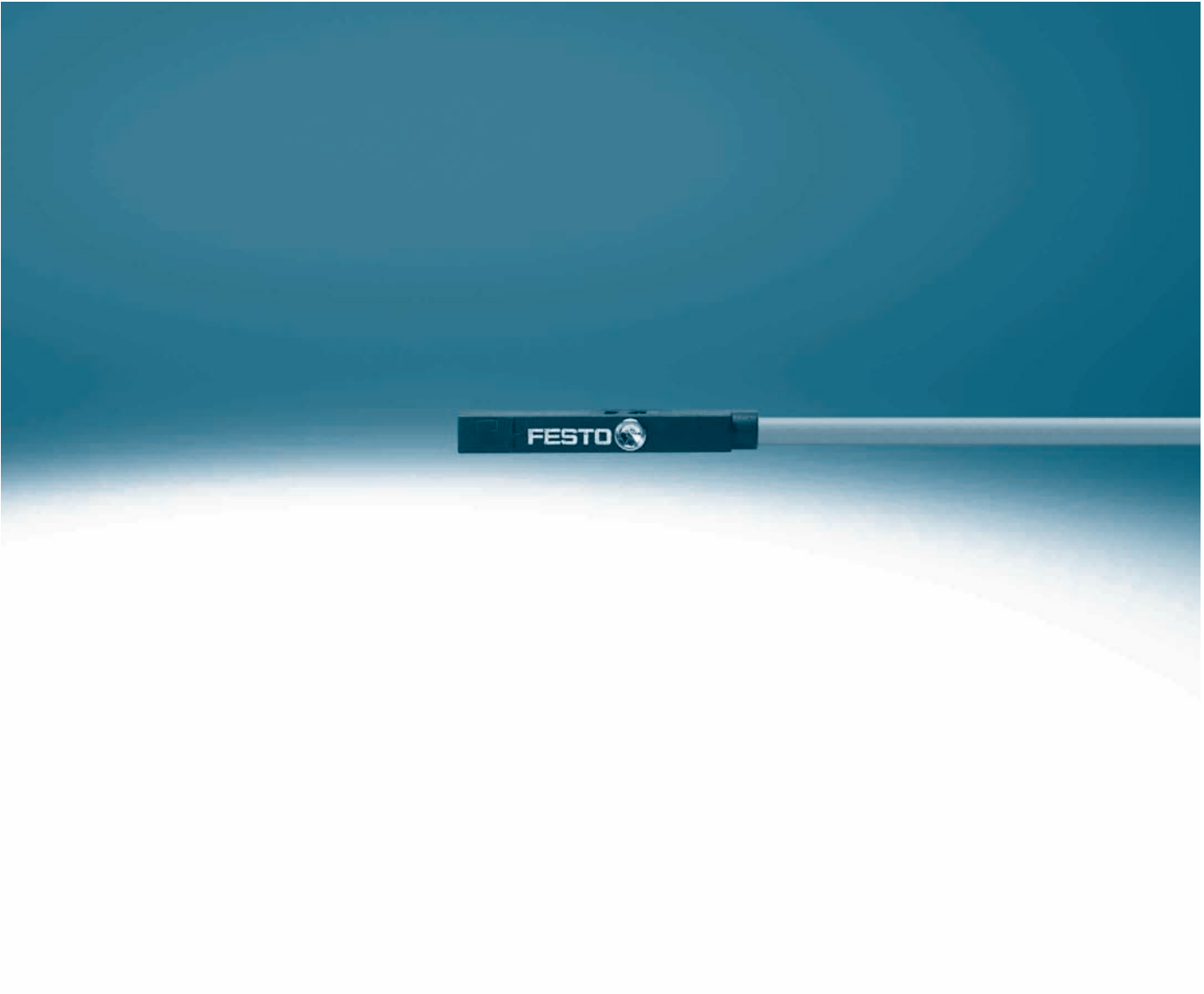


Bus node CTEU-CO

- Fieldbus interfaces:
 - Sub-D plug for self-assembly
 - Terminal strip, 5-pin
 - Sub-D socket, 9-pin
 - 2x M12x1, 5-pin
- Diagnostics:
 - Communication error
 - System diagnostics
 - Undervoltage

→ [cteu-co](#)





Proximity sensors

Proximity sensor SME-/SMT-8M, for T-slot

- Magnetic reed
- Magneto-resistive
- Insertable in the slot from above
- Wide range of mounting and connection options

→ 113



Proximity sensors SME-/SMT-10M, for C-slot

- Magnetic reed
- Magneto-resistive
- Insertable in the slot from above
- Wide range of mounting and connection options

→ 115



Position sensors

Position transmitters SDAT-MHS, for T-slot

- Switching input/output PNP or NPN
- Analogue output 4 ... 20 mA, IO-Link
- Position measuring range 0 ... 160 mm
- Cable length 0.3 m
- Electrical connection 4-pin, M8x1 plug

→ 117



Position transmitters SMAT-8M, for T-slot

- 0 ... 10 V, 0 ... 20 mA
- Position measuring range 48 ... 52 mm
- Electrical connection 4-pin, M8x1 plug

→ 118



Pressure and vacuum sensors

Pressure sensor SDE5

- Programmable
- Configurable

→ 119



Pressure sensor SPAB, with display

- Switching outputs PNP, NPN
- Voltage output
- Numerical pressure display, on two-part, multi-coloured display

→ 121



Pressure switch PEV

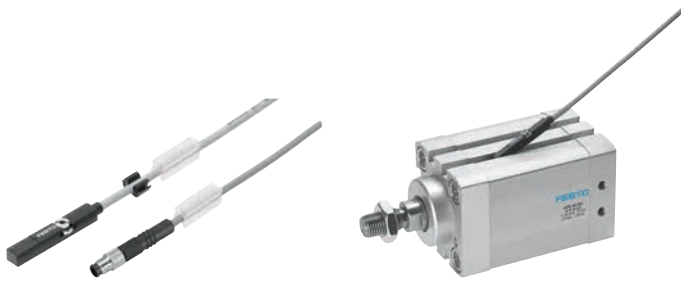
- Pressure 1 ... 12 bar
- Voltage 24 V DC
- Mechanical
- Contactless
- Adjustable pressure switching point
- Pressure indicator

→ 123



Proximity sensors SME-/SMT-8M, for T-slot

FESTO



- Switching output via reed contact or non-contacting
 - Insertable in the slot from above, does not protrude over the cylinder profile
 - Suitable for use with energy chains
 - Cable clip and inscription labels included in the scope of delivery
 - With switching status display
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

Type codes – Basic design

					24V				
Type									
SME	Proximity sensor, magnetic reed								
SMT	Proximity sensor, magneto-resistive								
Design									
8M	For T-slot, insertable in the slot from above								
8M-A									
Switching output, switching element function									
DS	N/O contact, 3-wire								
ZS	N/O contact, 2-wire								
DO	N/C contact, 3-wire								
PS	PNP, N/O contact, 3-wire								
NS	NPN, N/O contact, 3-wire								
PO	PNP, N/C contact, 3-wire								
Rated operating voltage									
24V	24 V DC								
Cable characteristics									
K	Standard + energy chain								
E	Energy chain + robot								
Cable length									
0,3	0.3 m								
2,5	2.5 m								
5,0	5.0 m								
7,5	7.5 m								
Connection technology									
OE	Open end								
M8	Cable with plug M8x1, snap-on flange								
M8D	Cable with plug M8x1, rotatable thread								
M12	Cable with plug M12x1, rotatable thread								
EU certification									
Ex2	II 3GD in accordance with EU directive 94/9/EC								

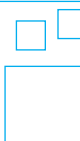
Variants

M8 Cable with plug M8x1, snap-on flange

Proximity sensors SME-/SMT-8M, for T-slot

FESTO

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

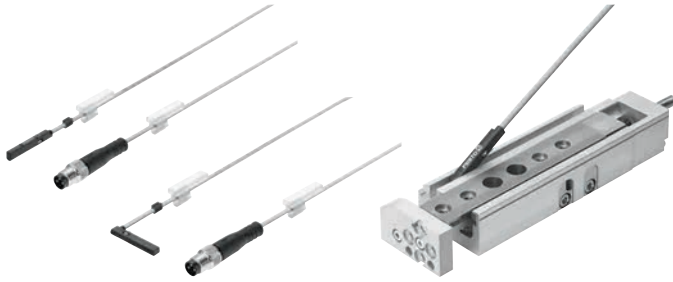
Ordering data – Basic design

Measuring principle	Switching output	Electrical connection			Cable length	Type	Part No.
		Cable	Cable with plug, rotatable thread				
			M8x1	M12x1			
N/O contact							
Magnetic reed	Contacting, bipolar	3-wire	–	–	2.5 m	SME-8M-DS-24V-K-2,5-OE	543862
		3-wire	–	–	5.0 m	SME-8M-DS-24V-K-5,0-OE	543863
		3-wire	–	–	7.5 m	SME-8M-DS-24V-K-7,5-OE	543876
		–	3-pin	–	0.3 m	SME-8M-DS-24V-K-0,3-M8D	543861
		2-wire	–	–	2.5 m	SME-8M-ZS-24V-K-2,5-OE	543872
N/C contact							
Magnetic reed	Contacting, bipolar	3-wire	–	–	7,5 m	SME-8M-DO-24V-K-7,5-OE	546799
N/O contact							
Magneto-resistive	PNP	–	3-pin	–	0.3 m	SMT-8M-A-PS-24V-E-0,3-M8D	574334
		3-wire	–	–	2.5 m	SMT-8M-A-PS-24V-E-2,5-OE	574335
		3-wire	–	–	5.0 m	SMT-8M-A-PS-24V-E-5,0-OE	574336
		–	–	3-pin	0.3 m	SMT-8M-A-PS-24V-E-0,3-M12	574337
	NPN	3-wire	–	–	2.5 m	SMT-8M-A-NS-24V-E-2,5-OE	574338
		–	3-pin	–	0.3 m	SMT-8M-A-NS-24V-E-0,3-M8D	574339
	Non-contacting	2-wire	–	–	5.0 m	SMT-8M-A-ZS-24V-E-5,0-OE-Ex2	574341
N/C contact							
Magneto-resistive	PNP	3-wire	–	–	7.5 m	SMT-8M-A-PO-24V-E-7,5-OE	574340

Accessories

Mounting kit SMBR		
For Ø	Type	Part No.
8	SMBR-8-8	175091
10	SMBR-8-10	175092
12	SMBR-8-12	175093
16	SMBR-8-16	175094
20	SMBR-8-20	175095
25	SMBR-8-25	175096





- Switching output PNP, NPN or non-contacting 2-wire
- Insertable in the slot from above, does not protrude over the cylinder profile
- Suitable for use with energy chains
- Cable clip and inscription labels included in the scope of delivery
- With switching status display

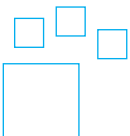
Type codes – Basic design

			–	10M	–		–		–	E	–		–		–	
Type																
SMT	Proximity sensor, magneto-resistive															
SME	Proximity sensor, magnetic reed															
Design																
10M	For C-slot, insertable in the slot from above															
Switching output, switching element function																
PS	PNP, N/O contact, 3-wire															
NS	NPN, N/O contact, 3-wire															
ZS	N/O contact, 2-wire															
DS	N/O contact, 3-wire															
Rated operating voltage																
24V	24 V DC															
Cable properties																
E	Energy chain + robot															
Cable length																
0,3	0.3 m															
2,5	2.5 m															
Connection direction																
L	In-line															
Q	Lateral															
Cable designation																
–	With inscription label holder															
Connection technology																
OE	Open end															
M8D	Cable with plug M8x1, rotatable thread															

Variants

- Cable length 0 ... 30 m
- Without inscription label holder
- Cable with plug M8x1, snap-on flange
- Cable with plug M12x1, rotatable thread

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

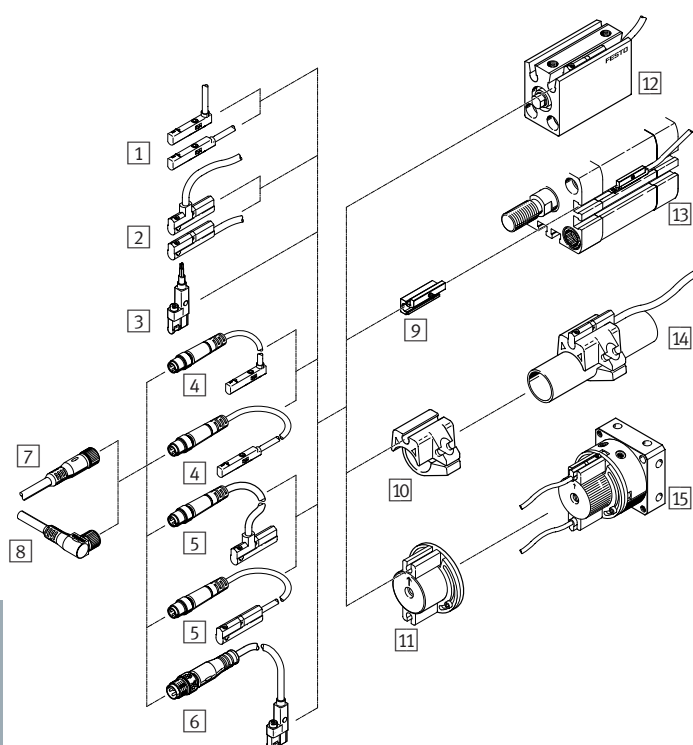
Enter the type or configuration part number in the search field.

Proximity sensors SME/SMT-10M, for C-slot

Ordering data – Basic design

Switching output	Connection direction	Electrical connection		Cable length	Type	Part No.
		Cable	Cable with plug, rotatable thread			
N/O contact						
PNP	Lateral	3-wire	–	2.5 m	SMT-10M-PS-24V-E-2,5-Q-OE	551374
		–	M8x1, 3-pin	0.3 m	SMT-10M-PS-24V-E-0,3-Q-M8D	551376
NPN	In-line	3-wire	–	2.5 m	SMT-10M-NS-24V-E-2,5-L-OE	551377
	Lateral	3-wire	–	2.5 m	SMT-10M-NS-24V-E-2,5-Q-OE	551378
	In-line	–	M8x1, 3-pin	0.3 m	SMT-10M-NS-24V-E-0,3-L-M8D	551379
	Lateral	–	M8x1, 3-pin	0.3 m	SMT-10M-NS-24V-E-0,3-Q-M8D	551380
Contactless, 2-wire	In-line	2-wire	–	2.5 m	SMT-10M-ZS-24V-E-2,5-L-OE	551382
	Lateral	2-wire	–	2.5 m	SMT-10M-ZS-24V-E-2,5-Q-OE	551383
Contacting, bipolar	Lateral	3-wire	–	2.5 m	SME-10M-DS-24V-E-2,5-Q-OE	551366
	Lateral	–	M8x1, 3-pin	0.3 m	SME-10M-DS-24V-E-0,3-Q-M8D	551368
	In-line	2-wire	–	2.5 m	SME-10M-ZS-24V-E-2,5-L-OE	551369
	Lateral	2-wire	–	2.5 m	SME-10M-ZS-24V-E-2,5-Q-OE	551370

Accessories



Proximity sensor

- 1 SMT/SME-10M-...-OE, with cable → 116
- 2 SME-10, with cable → [sme-10](#)
- 3 SMT-10G-...-OE, with cable → [smt-10g](#)
- 4 SMT/SME-10M-...-M8D, with cable and plug → 116
- 5 SME-10, with cable and plug → [sme-10](#)
- 6 SMT-10G-...-M..., with cable and plug → [smt-10g](#)

Connecting cables

- 7 NEBU-M...G... → [nebu](#)
- 8 NEBU-M...W... → [nebu](#)

Mounting kits

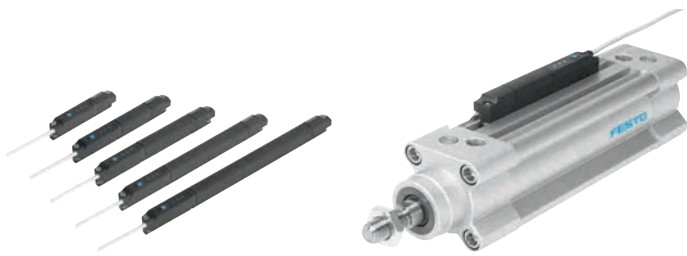
- 9 SMBN-10 → [smbn](#)
- 10 SMBR-10-... → [smbn](#)
- 11 WSM-...SME-10 → [wsm](#)

Drives

- 12 Drives with C-slot ADVC → 26
- 13 Drives with T-slot DSBC → 16
- 14 Round cylinders DSNU → 14
- 15 Swivel module DSM → 34

Position transmitters SDAT-MHS, for T-slot

FESTO



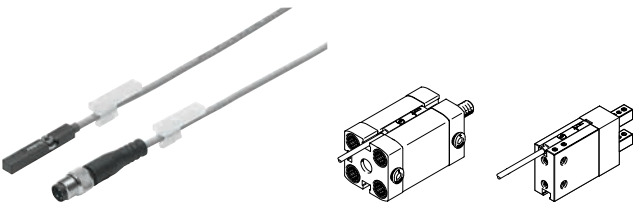
- Switching input/output PNP or NPN
- Analogue output 4 ... 20 mA, IO-Link
- Position measuring range 0 ... 160 mm
- Cable length 0.3 m
- Electrical connection, 4-pin, M8x1 plug

Type codes

		SDAT	-	M	HS	-		-	1	L	-	SA	-	E	-	0,3	-	M8
Type																		
SDAT	Position transmitter, magnetic																	
Sensor design																		
M	Insertable in the slot																	
Sensor principle																		
HS	Hall sensor																	
Measuring range																		
M50	0 ... 50																	
M80	0 ... 80																	
M100	0 ... 100																	
M125	0 ... 125																	
M160	0 ... 160																	
Nominal operating voltage																		
1	24 V DC																	
Display																		
L	LED																	
Switching input/output																		
SA	PNP or NPN, 1 analogue output 4 ... 20 mA, IO-Link																	
Cable properties																		
E	Suitable for use with energy chains/robot applications																	
Cable length																		
0,3	0.3 m																	
Electrical connection																		
M8	M8 plug																	

Ordering data

Analogue output	Electrical connection	Cable length	Type	Part No.
4 ... 20 mA, IO-Link	4-pin, cable with plug, rotatable thread M8	0.3 m	SDAT-MHS-M50-1L-SA-E-0,3-M8	1531265
			SDAT-MHS-M80-1L-SA-E-0,3-M8	1531266
			SDAT-MHS-M100-1L-SA-E-0,3-M8	1531267
			SDAT-MHS-M125-1L-SA-E-0,3-M8	1531268
			SDAT-MHS-M160-1L-SA-E-0,3-M8	1531269



- Switching input/output 0 ... 10 V
- Position measuring range ≤ 40 mm (depending on drive/gripper used)
- Cable length 0.3 m
- Electrical drive plug M8, 4-pin, rotatable thread

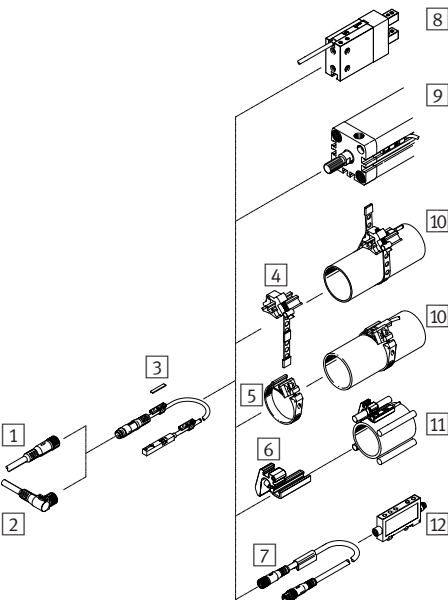
Type codes

		SMAT	-	8	M	-	U	-	E	-	0,3	-	M8D
Type													
SMAT	Position transmitter, magnetic												
Design													
8	For T-slot												
Sensor design													
M	Insertable in slot, centre clamping												
Switching input/output													
U	0 ... 10 V												
Cable properties													
E	Suitable for use with energy chains/robot applications												
Cable length													
0,3	0.3 m												
Electrical connection													
M8D	Plug M8, 4-pin, rotatable thread												

Ordering data

Analogue output	Electrical connection	Cable length	Type	Part No.
0 ... 10 V	4-pin, M8 plug, rotatable thread	0.3 m	SMAT-8M-U-E-0,3-M8D	553744

Accessories



- 1

Connecting cable NEBU-M8G4
→ 122
- 2

Connecting cable NEBU-M8W4
→ 122
- 3

Inscription label ASLR → [aslr](#)
- 4

Mounting kit SMBR-8-8/100-S6, heat-resistant → 118
- 5

Mounting kit SMBR → [smb](#)
- 6

Mounting SMBZ-8 → [smbz](#)
- 7

Connecting cable NEBU-M8G4
→ 122
- 8

Three-point gripper DHDS, HGDD; Parallel gripper DHPS, HGPD, HGPT; Angle gripper DHWS; Radial gripper DHRS, HGRT
→ [gripper](#)

9

Standard cylinder DNCB, DNC; Compact cylinder ADN, ADVU/AEVU; Short-stroke cylinder ADVC/AEVC; Flat cylinder DZF; Linear drive DGC; Linear/swivel clamp CLR; Guided drive DFM

10

Standard cylinder/round cylinder DSNU; Linear drive unit SLE

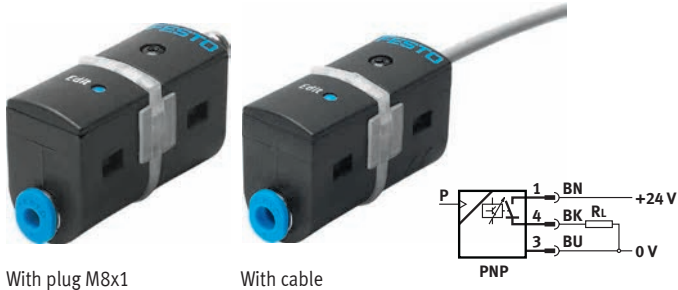
11

Standard cylinder DSBG

12

Signal converter SVE4

4 Mounting kit SMBR-8-8/100-S6, heat resistant		
For piston Ø	Type	Part No.
8 ... 100	SMBR-8-8/100-S6	538937



- Programmable and configurable pressure switch for simple pressure sensing tasks
- Relative pressure measurement
- Teach-in function for programming
- Integrated microprocessor
- Switching status indicated by an LED visible from all sides

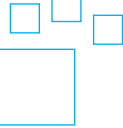
Type codes – Basic design

		SDE5	–		–		–		–	P	–	
Sensor function												
SDE5	Pressure sensor											
Pressure measuring range												
V1	–1 ... 0 bar											
D2	0 ... 2 bar											
D10	0 ... 10 bar											
Output function												
FP	Freely programmable, N/O contact, N/C contact											
O	Threshold value with fixed hysteresis, 1 teach-in pressure, N/O contact											
C	Threshold value with fixed hysteresis, 1 teach-in pressure, N/C contact											
O1	Threshold value with fixed hysteresis, 2 teach-in pressures, N/O contact											
O2	Threshold value with variable hysteresis, 2 teach-in pressures, N/O contact											
O3	Window comparator with fixed hysteresis, 2 teach-in pressures, N/O contact											
C3	Window comparator with fixed hysteresis, 2 teach-in pressures, N/C contact											
Pneumatic connection												
Push-in connector at both ends												
Q4	For tubing O.D. 4 mm											
Q6	For tubing O.D. 6 mm											
Push-in connector at one end												
Q4E	For tubing O.D. 4 mm											
Q6E	For tubing O.D. 6 mm											
Electrical output												
P	1 switching output PNP											
Electrical connection												
K	Cable, 2.5 m											
M8	Plug M8, 3 pin											

Variants

- Threshold value with fixed hysteresis
- Threshold value with variable hysteresis
- Window comparator with fixed hysteresis
- Connecting cables
- Teach-in points permanently set

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

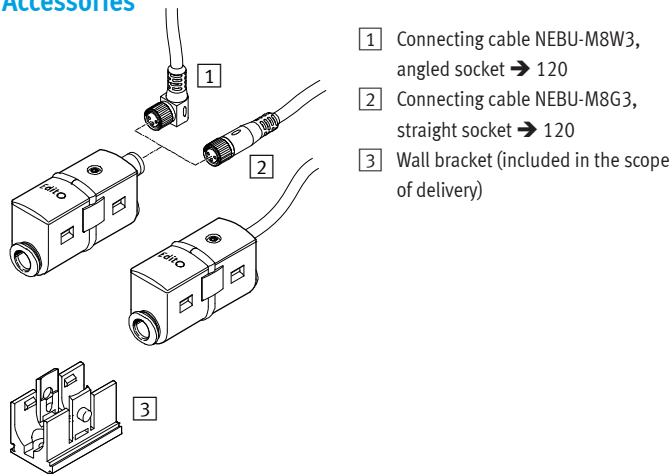
The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Output function	Pressure measuring range					
	V1: -1 ... 0 bar		D2: 0 ... 2 bar		D10: 0 ... 10 bar	
	Type	Part No.	Type	Part No.	Type	Part No.
FP					SDE5-D10-FP-Q6E-P-M8	542897
	SDE5-V1-FP-Q6-P-M8	542887			SDE5-D10-FP-Q6-P-M8	542898
					SDE5-D10-FP-Q4E-P-K	542901
					SDE5-D10-FP-Q4E-P-M8	542900
					SDE5-D10-FP-Q6-P-K	542899
O	SDE5-V1-O-Q6E-P-M8	527461			SDE5-D10-O-Q6E-P-M8	527467
			SDE5-D2-O-Q6E-P-K	542888	SDE5-D10-O-Q6E-P-K	542890
	SDE5-V1-O-Q6-P-M8	527458			SDE5-D10-O-Q6-P-M8	527464
	SDE5-V1-O-Q4E-P-M8	527460			SDE5-D10-O-Q4E-P-M8	527466
	SDE5-V1-O-Q4-P-M8	527457			SDE5-D10-O-Q4-P-M8	527463
C					SDE5-D10-C-Q6E-P-M8	542894
					SDE5-D10-C-Q4E-P-M8	542889
					SDE5-D10-C-Q6E-P-K	542895
O1	SDE5-V1-O1-Q6-P-M8	542886				
O2					SDE5-D10-O2-Q6-P-M8	542892
					SDE5-D10-O2-Q6E-P-M8	542891
O3					SDE5-D10-O3-Q6E-P-K	542893
C3					SDE5-D10-C3-Q6E-P-K	542896

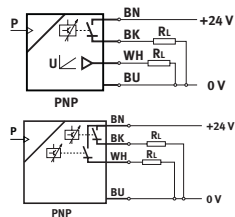
Accessories



- 1 Connecting cable NEBU-M8W3, angled socket → 120
- 2 Connecting cable NEBU-M8G3, straight socket → 120
- 3 Wall bracket (included in the scope of delivery)

1 Connecting cables NEBU-M8W3, M8x1, angled socket		
Description	Type	Part No.
Cable length 2.5 m	NEBU-M8W3-K-2.5-LE3	541338
Cable length 5 m	NEBU-M8W3-K-5-LE3	541341

2 Connecting cables NEBU-M8G3, M8x1, straight socket		
Description	Type	Part No.
Cable length 2.5 m	NEBU-M8G3-K-2.5-LE3	541333
Cable length 5 m	NEBU-M8G3-K-5-LE3	541334



E.g. with 1 or 2 switching outputs PNP, switchable, with cable

- Two-part, multi-coloured display
- Copy function (settings can be transferred from one device to another)
- Simple commissioning thanks to intuitive operation
- Compact design 30x30 mm

Type codes – Basic design

SPAB		-		R	-		-		-	
Sensor function										
SPAB	Piezoresistive pressure sensor with multi-coloured display									
Pressure measuring range										
B2	-1 ... +1 bar									
P10	0 ... +10 bar									
Measured variable										
R	Relative pressure									
Pneumatic connection										
G18	Male thread G1/8 and female thread M5									
Electrical output										
2P	2 switching outputs PNP									
2N	2 switching outputs NPN									
PB	1 switching output PNP and 1 ... 5 V analogue									
NB	1 switching output NPN and 1 ... 5 V analogue									
Electrical connection										
K1	Cable, 2.5 m Included in the scope of delivery									
M8	Plug M8x1									

Variants

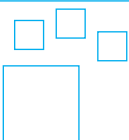
Pressure connection

R18	Male thread R1/8 and female thread M5
N18	Male thread NPT1/8-27 and female thread M5

Electrical output

PB	1 switching output PNP and 1 ... 5 V analogue
NB	1 switching output NPN and 1 ... 5 V analogue

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Table with 6 columns: Pressure measuring range, Electrical output, Electrical connection, and two columns for M8 Plug M8x1 (Type and Part No.). Rows include B2: -1 ... +1 bar, P10: 0 ... 10 bar with 2x PNP and 2x NPN outputs.

1) Connecting cable NEBU-L1 (2.5 m) included in the scope of delivery

Accessories

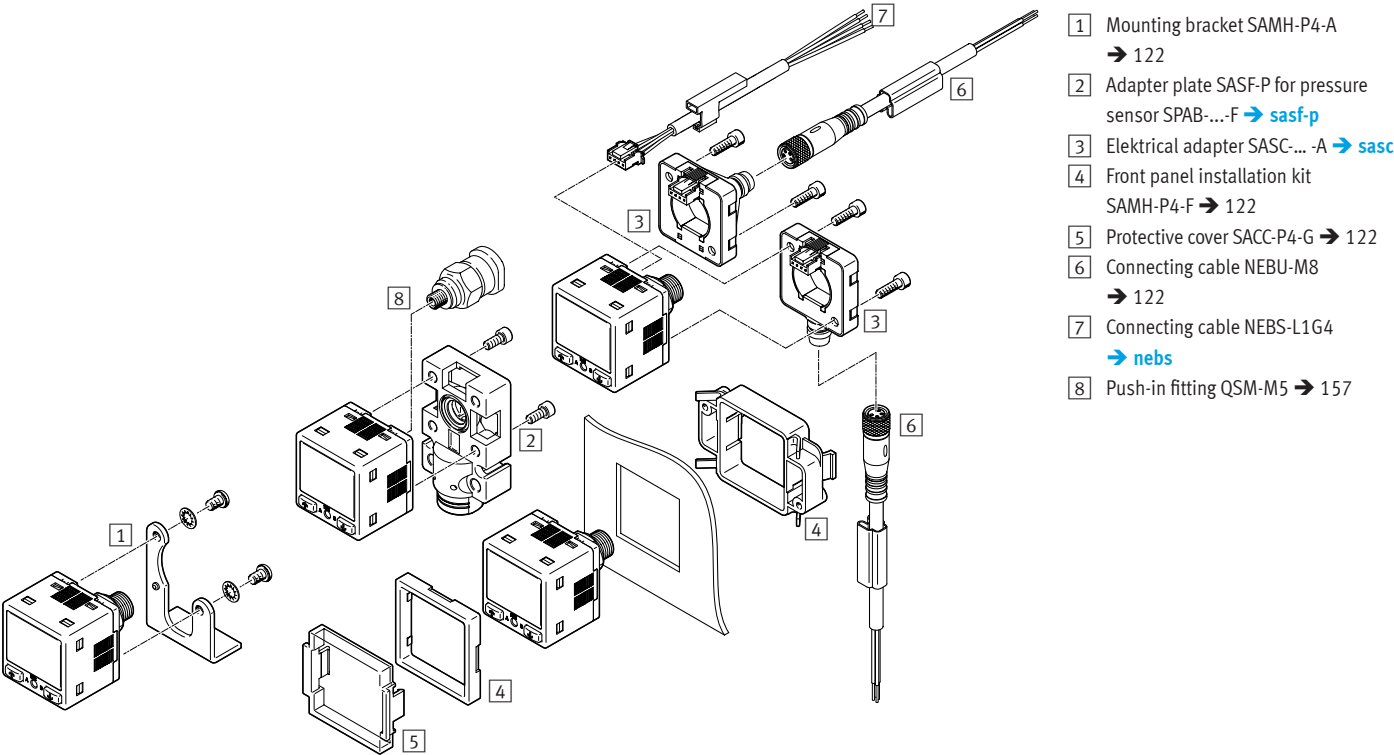


Table with 2 columns: Part Name and Part No. Rows include Mounting bracket SAMH-P4-A, Front panel installation kit SAMH-P4-F, and Protective cover SACC.

Table with 3 columns: Description, Type, and Part No. Rows detail connecting cable NEBU-M8 with straight and angled socket options for 2.5m and 5m lengths.



- Mounting via screws or screw-in thread
- Pressure 1 ... 12 bar
- Voltage 24 V DC
- Mechanical
- Contactless
- Adjustable switching point
- Pressure indicator

Type codes – Basic design

		PEV	-	1/4	-		-		-		-		-		-	
Type																
PEV	Pressure switch															
Pneumatic connection																
1/4	G $\frac{1}{4}$															
Generation																
-	Mounting via screws															
A	A series, mounting via screw-in thread															
B	B series, mounting via screws															
Width across flats																
-	None															
SW27	27 mm															
Electrical connection																
-	Type with through-hole: - Plug, type A, rectangular design, to EN 175301-803 A series: - For angled plug socket PEV-1/4-A-WD															
M12	Plug M12x1, 4-pin, round design, to EN 60947-5-2															
B-OD	For angled plug socket PEV-1/4-WD-LED-...															
Setting options																
-	None															
SC	Scale for pressure adjustment															
Plug socket																
-	Series A: Not included in the scope of delivery Series B: Included in scope of delivery															
OD	Not included in the scope of delivery															

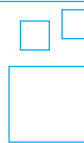
Variants

VPEV	Vacuum switches	Pneumatic connection
PEV-W	Pressure switch, H-rail mounting	1/8 G $\frac{1}{8}$
VPEV-W	Vacuum switch, H-rail mounting	

Electrical connection	
S	Plug M8x1, 4-pin
KL	Screw terminal, 4-pin

LED Switching status display, yellow LED

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration
part number in the search field.

Ordering data – Basic design

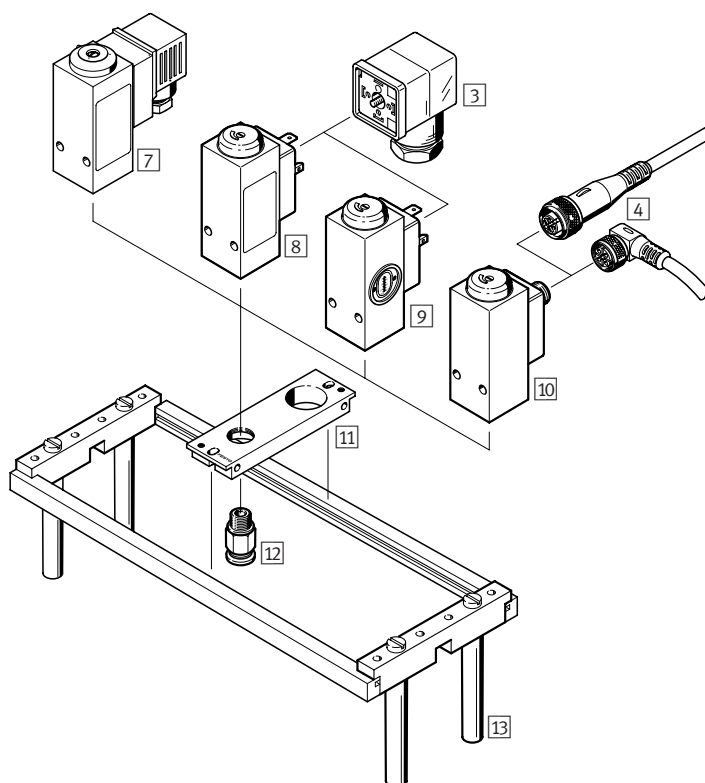
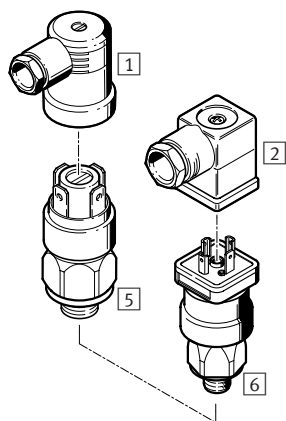
Mounting via screw-in thread

Pneumatic connection	Electrical connection	Type	Part No.
G¼	For angled plug socket PEV-1/4-A-WD	PEV-1/4-A-SW27	159259
	For angled plug socket PEV-1/4-WD-LED-...	PEV-1/4-A-SW27-B-OD	175252

Mounting via screws

Pneumatic connection	Electrical connection	Type	Part No.
G¼	Plug, type A, rectangular design, to EN 175301-803 Plug socket included in scope of delivery	PEV-1/4-B	10773
	Plug, type A, rectangular design, to EN 175301-803	PEV-1/4-B-OD	175250
	Plug, type A, rectangular design, to EN 175301-803	PEV-1/4-SC-OD	161760
	Plug M12x1, 4-pin, round design, to EN 60947-5-2	PEV-1/4-B-M12	192488

Accessories



- 1 Angled plug socket PEV-1/4-A-WD
→ [pev](#)
- 2 Angled plug socket
PEV-1/4-WD-LED-... → [pev](#)
- 3 Angled plug socket with switching
status display PEV → [pev](#)
Plug socket without switching status
display MSSD → [mssd](#)
- 4 Connecting cable NEBU-M12
→ [nebu](#)
- 5 Pressure switch PEV-1/4-A-SW27
- 6 Pressure switch
PEV-1/4-A-SW27-B-OD
- 7 Pressure switch PEV-1/4-B
- 8 Pressure switch PEV-1/4-B-OD
- 9 Pressure switch PEV-1/4-SC-OD
- 10 Pressure switch PEV-1/4-B-M12
- 11 Mounting plate APL → [apl](#)
- 12 Quick connector CK-1/8,
LCK-1/8 → [ck](#)
- 13 Mounting frame NRRQ → [nrrq](#)



MS series**Service units, MS series**

- Easy to mount and compact
- High flow rate: up to 22,000 l/min
- Broad range of functions: individual components, pre-assembled combinations, application-specific combinations or complete turnkey solutions

➔ 127

**Individual units, MS series**

- Filter regulator MS-LFR
- Pressure regulator MS-LR
- On-off valve MS-EM, MS-EE
- Soft-start valve MS-DL
- Soft-start/quick exhaust valve MS-SV-C

➔ 131

**D series, metal design****D series service units, metal design**

- Sturdy and versatile metal series
- 4 sizes, 10 connection sizes, 2 pressure ranges
- Broad range of functions: individual devices or pre-assembled and tested combinations

➔ d series

**D series, polymer design****D series service units, polymer design**

- Reliable compressed air preparation for applications in uncritical environments
- Freely combinable within the D series from Festo
- Port sizes: G $\frac{1}{8}$, G $\frac{1}{4}$
- Broad range of functions: individual devices or pre-assembled and tested combinations

➔ 140





- Filter, regulation and lubrication function in one unit
- High flow rate and efficiency of particle separation
- Good regulation characteristic with low pressure hysteresis
- Ensures setting values with detent on the rotary knob
- Flow rate 850 ... 4,800 l/min
- Operating pressure 1.5 ... 20 bar
- Degree of filtration 40 µm

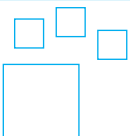
Type codes – Basic design

		MSB		–		–		
Series								
MSB	Air supply unit							
Size								
4	Grid dimension 40 mm							
6	Grid dimension 62 mm							
Pneumatic connection								
1/4	MSB4: thread G1/4							
1/2	MSB6: thread G1/2							
Service unit comprising:								
– Filter regulator with pressure gauge, rotary knob with detent, can be locked using accessories								
– Lubricator								
Pressure regulation range 0.5 ... 12 bar								
Plastic bowl guard								
FRC5:J1	Grade of filtration 40 µm, manual rotary condensate drain							
FRC6:J2	Grade of filtration 40 µm, fully automatic condensate drain							
Lubricator								
M1	Plastic bowl guard							

Variants

- Additional connection sizes
- Grade of filtration 5 µm
- Pressure regulation range 0.3 ... 7 bar
- Metal bowl guard for filter regulator and for lubricator

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

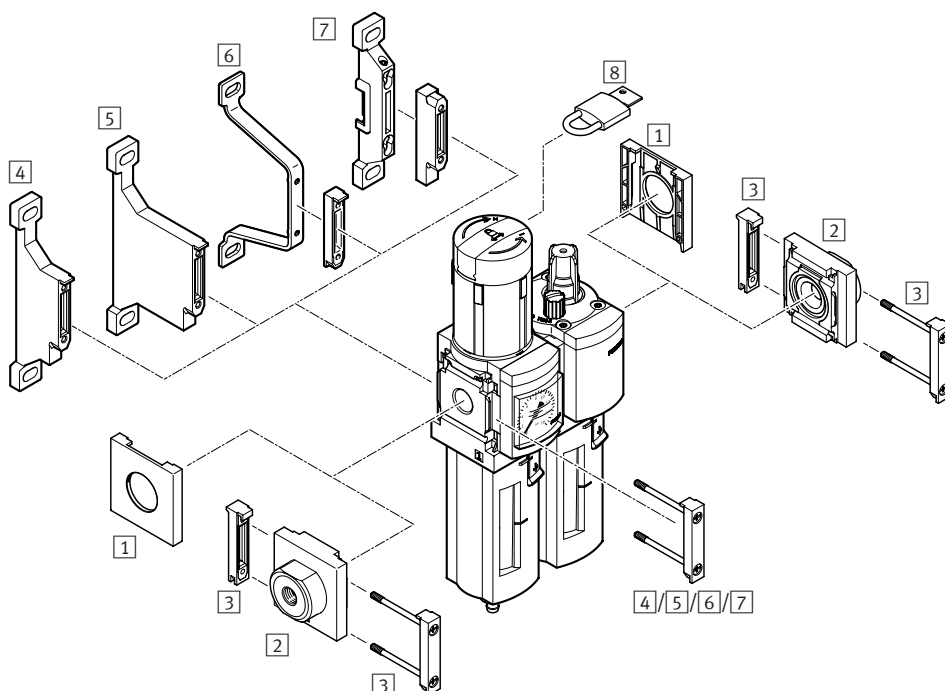
The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Size	Connection	Manual rotary condensate drain		Fully automatic condensate drain	
		Type	Part No.	Type	Part No.
MSB4	G1/4	MSB4-1/4-FRC5:J1M1	531117		
MSB6	G1/2			MSB6-1/2-FRC6:J2M1	530246

Accessories



- 1 Cover cap MS4/6-END → [ms4-end](#)
- 2 Connecting plate set MS4/6-AG... → [ms4-ag](#)
- 3 Module connector MS4/6-MV → 128
- 4 Mounting bracket MS4/6-WP → 128
- 5 Mounting bracket MS4/6-WPB → 128
- 6 Mounting bracket MS4/6-WPE → [ms4-wpe](#)
- 7 Mounting bracket MS4/6-WPM → 128
- 8 Padlock LRVS-D → [lrvs](#)

3 Module connector MS4/6-MV		
Size	Type	Part No.
MS4	MS4-MV	532798
MS6	MS6-MV	532799

4 Mounting bracket MS4/6-WP		
Size	Type	Part No.
For wall mounting		
MS4	MS4-WP	532184
MS6	MS6-WP	532195

5 Mounting bracket MS4/6-WPB		
Size	Type	Part No.
For wall mounting		
MS4	MS4-WPB	526063
MS6	MS6-WPB	526074

7 Mounting bracket MS4/6-WPM		
Size	Type	Part No.
For wall mounting		
MS4	MS4-WPM-D	526060
MS6	MS6-WPM-D	526073



- For filtered and unlubricated compressed air supply
- Supply pressure can be switched on or off
- Outlet pressure can be adjusted within the pressure regulation range
- Flow rate 950 ... 5,100 l/min
- Pressure regulation range 0.5 ... 12 bar
- Grade of filtration 40 µm

Combinations comprising:

- A** On-off valve, filter regulator, mounting bracket
B On-off valve, filter regulator with pressure gauge, branching module with pressure switch or pressure sensor for operational status indicator, mounting bracket

- C** On-off valve, filter regulator, electrically actuated on-off valve with pressure sensor for operational status indicator, mounting bracket

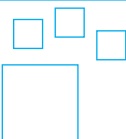
Type codes – Basic design

		MSB		–		–		–	WP
Series									
MSB	Service unit combination								
Size									
4	Grid dimension 40 mm								
6	Grid dimension 62 mm								
Pneumatic connection									
1/4	MSB4: thread G1/4								
1/2	MSB6: thread G1/2								
Service unit combination									
C3	On-off valve MS...-EM1								
J1	Filter regulator MS...-LFR-D7-ERM-AS								
J2	Filter regulator MS...-LFR-D7-ERV-AS								
D14	On-off valve MS...-EE-10V24P-AD7								
F3	Branching module MS...-FRM-Y								
F12	Branching module MS...-FRM-AD7								
Type of mounting									
WP	Mounting bracket								

Variants

- Additional connection sizes
- Connecting plates
- Grade of filtration 5 µm
- Equipment service units: filter regulators, soft-start valves, lubricators, on-off valves
- Alternative flow direction

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

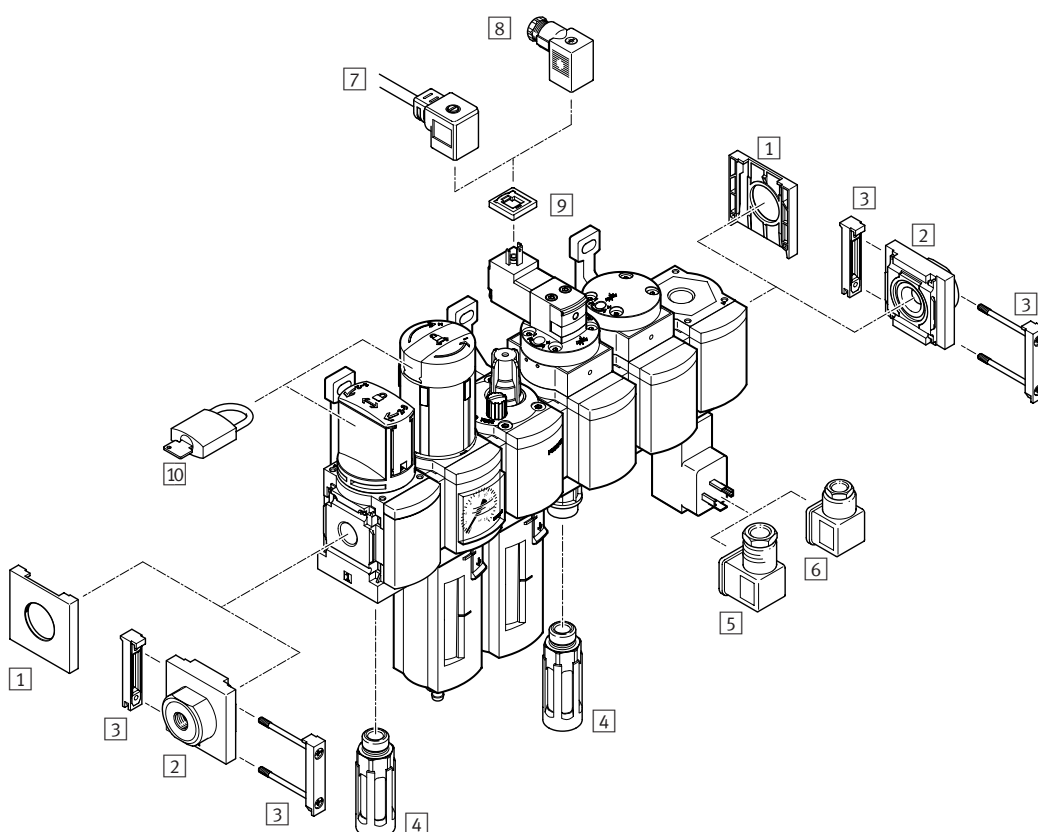
The configurator can be found on the DVD under Products or at
 → www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Size	Connection	Manual rotary condensate drain		Fully automatic condensate drain	
		Type	Part No.	Type	Part No.
A On-off valve, filter regulator, mounting bracket					
MSB4	G1/4	MSB4-1/4:C3J1-WP	8025354	MSB4-1/4:C3J2-WP	542298
MSB6	G1/2	MSB6-1/2:C3J1-WP	8025355	MSB6-1/2:C3J2-WP	542274
B On-off valve, filter regulator with pressure gauge, branching module with pressure switch, mounting bracket					
MSB4	G1/4	MSB4-1/4:C3J1F3-WP	542294	MSB4-1/4:C3J2F3-WP	542300
MSB6	G1/2	MSB6-1/2:C3J1F3-WP	542270	MSB6-1/2:C3J2F3-WP	542276
B On-off valve, filter regulator with pressure gauge, branching module with pressure sensor for operational status indicator, mounting bracket					
MSB4	G1/4	MSB4-1/4:C3J1F12-WP	8025356		
MSB6	G1/2	MSB6-1/2:C3J1F12-WP	8025357		
C On-off valve, filter regulator, electrically actuated on-off valve with pressure sensor for operational status indicator, mounting bracket					
MSB4	G1/4	MSB4-1/4:C3J1D14-WP	8025358		
MSB6	G1/2	MSB6-1/2:C3J1D14-WP	8025359		

Accessories



- 1 Cover cap MS4/6-END → [ms4-end](#)
- 2 Connecting plate set MS4/6-AG... → [ms4-ag](#)
- 3 Module connector MS4/6-MV → 130
- 4 Silencer U → 175
- 5 Angled plug socket PEV-1/4-WD-LED → 123
- 6 Plug socket MSSD-C-4P → [mssd-c](#)
- 7 Plug socket with cable KMEB → 103
- 8 Plug socket MSSD-EB → 103
- 9 Illuminating seal MEB-LD → [meb-ld](#)
- 10 Padlock LRVs-D → [lrvs](#)

Mounting bracket MS4/6-WP, MS4/
MS6-WPB, MS4/MS6-WPM → 130

3 Module connector MS4/6-MV		
Size	Type	Part No.
MS4	MS4-MV	532798
MS6	MS6-MV	532799

Mounting bracket MS4/6-WP		
Size	Type	Part No.
For wall mounting		
MS4	MS4-WP	532184
MS6	MS6-WP	532195

Mounting bracket MS4/6-WPB		
Size	Type	Part No.
For wall mounting		
MS4	MS4-WPB	526063
MS6	MS6-WPB	526074

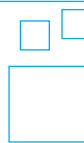
Mounting bracket MS4/6-WPM		
Size	Type	Part No.
For wall mounting		
MS4	MS4-WPM-D	526060
MS6	MS6-WPM-D	526073

- ## Type codes – Basic design

[illegible]

- Connecting plates
- Pressure gauge alternatives
- Security
- UL certification
- Pressure regulation range
- Alternative pressure gauge scale
- Type of mounting
- Alternative flow direction
- Condensate drain
- Secondary venting
- EU certification

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

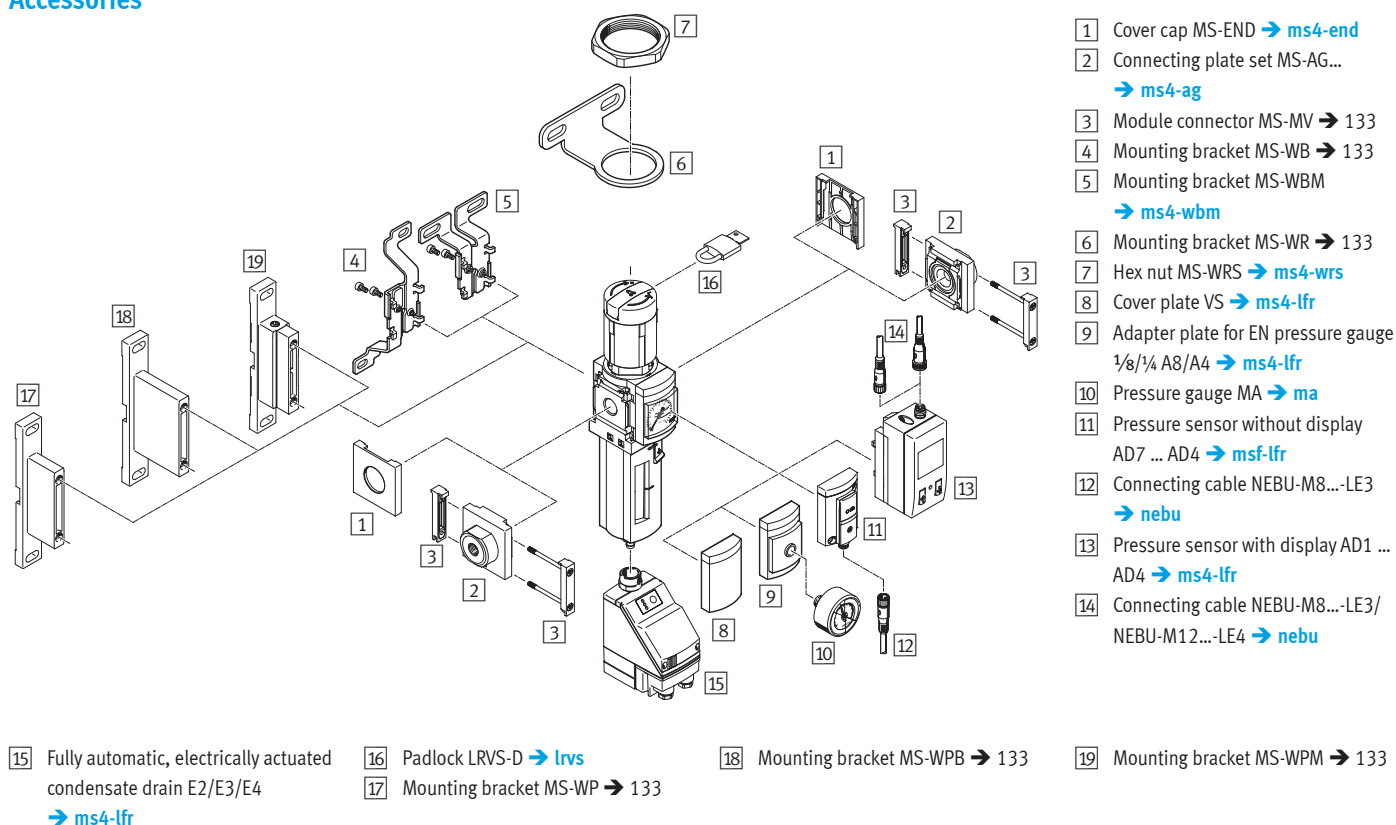
The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration
part number in the search field.

Ordering data – Basic design

			Grade of filtration 5 µm		Grade of filtration 40 µm	
Size	Connection	Condensate drain	Type	Part No.	Type	Part No.
Pressure regulation range 0.3 ... 7 bar, integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories, plastic bowl guard						
MS4	G¼	Manual rotary	MS4-LFR-¼-D6-CRM-AS	529144	MS4-LFR-¼-D6-ERM-AS	529148
		Fully automatic	MS4-LFR-¼-D6-CRV-AS	529146	MS4-LFR-¼-D6-ERV-AS	529150
MS6	G½	Manual rotary	MS6-LFR-½-D6-CRM-AS	529176	MS6-LFR-½-D6-ERM-AS	529180
		Fully automatic	MS6-LFR-½-D6-CRV-AS	529178	MS6-LFR-½-D6-ERV-AS	529182
Pressure regulation range 0.5 ... 7 bar, integrated pressure gauge, display unit [bar], rotary knob with detent, lockable with accessories, pilot actuated filter diaphragm regulator						
MS9	–	Manual rotary			MS9-LFR-G-D6-EUM-AG-BAR-AS	564110
		Fully automatic			MS9-LFR-G-D6-EUV-AG-BAR-AS	564111
Pressure regulation range 0.5 ... 12 bar, integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories, plastic bowl guard						
MS4	G¼	Manual rotary	MS4-LFR-¼-D7-CRM-AS	529152	MS4-LFR-¼-D7-ERM-AS	529156
		Fully automatic	MS4-LFR-¼-D7-CRV-AS	529154	MS4-LFR-¼-D7-ERV-AS	529158
MS6	G½	Manual rotary	MS6-LFR-½-D7-CRM-AS	529184	MS6-LFR-½-D7-ERM-AS	529188
		Fully automatic	MS6-LFR-½-D7-CRV-AS	529186	MS6-LFR-½-D7-ERV-AS	529190
Pressure regulation range 0.5 ... 12 bar, integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories, integrated as metal bowl guard						
MS4	G¼	Manual rotary			MS4-LFR-¼-D7-EUM-AS	535724
		Fully automatic	MS4-LFR-¼-D7-CUV-AS	535720	MS4-LFR-¼-D7-EUV-AS	535722
MS6	G½	Manual rotary	MS6-LFR-½-D7-CUM-AS	530338	MS6-LFR-½-D7-EUM-AS	529192
		Fully automatic	MS6-LFR-½-D7-CUV-AS	530340	MS6-LFR-½-D7-EUV-AS	529194
Pressure regulation range 0.5 ... 12 bar, integrated pressure gauge, display unit [bar], rotary knob with detent, lockable with accessories, pilot actuated filter diaphragm regulator						
MS9	–	Manual rotary			MS9-LFR-G-D7-EUM-AG-BAR-AS	564118
		Fully automatic			MS9-LFR-G-D7-EUV-AG-BAR-AS	564119

Accessories



Accessories

3 Module connector MS-MV

Size	Type	Part No.
MS4	MS4-MV	532798
MS6	MS6-MV	532799
MS9	MS9-MV	552950

6 Mounting bracket MS-WR

Size	Type	Part No.
For wall mounting		
For filter regulator, pressure regulator		
MS4	MS4-WR	526064
MS6	MS6-WR	526075

17 Mounting bracket MS-WP

Size	Type	Part No.
For wall mounting		
MS4	MS4-WP	532184
MS6	MS6-WP	532195
MS9	MS9-WP	552947

19 Mounting bracket MS-WPM

Size	Type	Part No.
For wall mounting		
MS4	MS4-WPM-D	526060
MS6	MS6-WPM-D	526073
MS9	MS9-WPM	552948

4 Mounting bracket MS-WB

Size	Type	Part No.
For wall mounting		
MS4	MS4-WB	532185
MS6	MS6-WB	532196

Module connector MS-MVM

Size	Type	Part No.
For installation of modules with regulating knob pointing downwards		
MS4	MS4-MVM	532800
MS6	MS6-MVM	532801

18 Mounting bracket MS-WPB

Size	Type	Part No.
For wall mounting		
MS4	MS4-WPB	526063
MS6	MS6-WPB	526074
MS9	MS9-WPB	552949



- Selected types in accordance with ATEX directive for potentially explosive atmospheres
- www.festo.com/en/ex

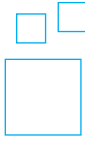
Type codes – Basic design

[illegible]

Variants

- | | | | |
|---------------------------------------|------------------------------------|--------------------|------------------------------|
| – Connecting plates | – Pressure gauge alternatives | – Security | – UL certification |
| – Pressure regulation range/operation | – Alternative pressure gauge scale | – Type of mounting | – Alternative flow direction |
| | – Secondary venting | – EU certification | |

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

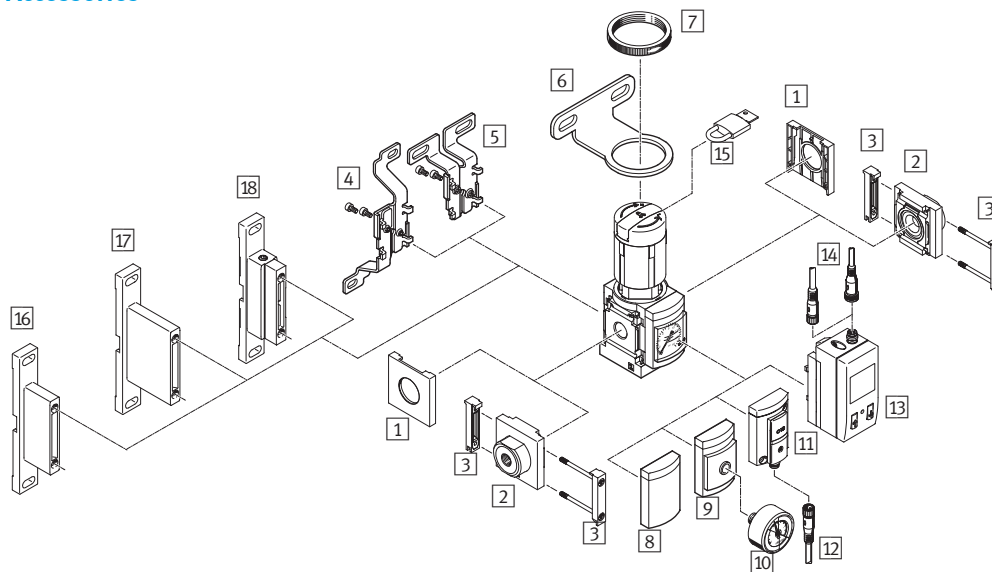
Enter the type or configuration
part number in the search field.

Ordering data – Basic design

		Pressure regulation range 0.3 ... 4 bar		Pressure regulation range 0.3 ... 7 bar		Pressure regulation range 0.5 ... 12 bar	
Size	Connection	Type	Part No.	Type	Part No.	Type	Part No.
Integrated pressure gauge, display unit [bar], standard rotary knob with detent, can be locked using accessories							
MS4	G¼	MS4-LR-¼-D5-AS	529415	MS4-LR-¼-D6-AS	529417	MS4-LR-¼-D7-AS	529419
MS6	G½	MS6-LR-½-D5-AS	529989	MS6-LR-½-D6-AS	529991	MS6-LR-½-D7-AS	529993

			Pressure regulation range 0.5 ... 7 bar		
Size	Connection		Type	Part No.	
Integrated pressure gauge, display unit [bar], rotary knob with detent, can be locked using accessories					
MS9	-		MS9-LR-G-D6-AG-BAR-AS	564136	
			MS9-LR-G-D7-AG-BAR-AS	564138	

Accessories



- 1 Cover cap MS-END → [ms4-end](#)
- 2 Connecting plate set MS-AG... → [ms4-ag](#)
- 3 Module connector MS-MV → 133
- 4 Mounting bracket MS-WB → 133
- 5 Mounting bracket MS-WBM → [ms4-wbm](#)
- 6 Mounting bracket MS-WR → 133
- 7 Knurled nut (included in the scope of delivery) MS-LR → [ms4-lr](#)
- 8 Cover plate VS → [ms4-lr](#)
- 9 Adapter plate for EN pressure gauge $\frac{1}{8}/\frac{1}{4}$ A8/A4 → [ms4-lr](#)
- 10 Pressure gauge MA → [ma](#)
- 11 Pressure sensor without display AD7 ... AD4 → [ms4-lr](#)
- 12 Connecting cable NEBU-M8...-LE3 → [nebu](#)
- 13 Pressure sensor with display AD1 ... AD4 → [ms4-lr](#)
- 14 Connecting cable NEBU-M8...-LE3/NEBU-M12...-LE4 → [nebu](#)

15 Padlock LRVS-D → [lrvs](#)

16 Mounting bracket MS-WP → 133

17 Mounting bracket MS-WPB → 133

18 Mounting bracket MS-WPM → 133

-

		MS		-		-		-		-		-	
Series													
MS	Standard service unit												
Size													
4	Grid dimension 40 mm												
6	Grid dimension 62 mm												
9	Grid dimension 90 mm												
Service function													
EM1	On-off valve, manually operated												
EM	On-off valve, manually operated												
EE	On-off valve, electrically actuated												
Pneumatic connection													
1/4	Female thread G $\frac{1}{4}$												
1/2	Female thread G $\frac{1}{2}$												
G	Module without connecting thread, without connecting plate												
Supply voltage													
10V24	Supply voltage 24 V DC												
V24	Supply voltage 24 V DC												
Silencer													
	Without												
S	Silencer												
Pressure gauge/pressure gauge alternatives													
	None												
VS	Cover plate												

- Pneumatic connection
- Silencer
- Connecting plates

- Pressure gauge/pressure gauge alternatives
- Alternative pressure gauge scale
- Supply voltage

- Type of mounting
- Valve function
- EU certification

- UL certification
- Flow direction

 Configurable product

This product and all its variants can be ordered using the configurator.

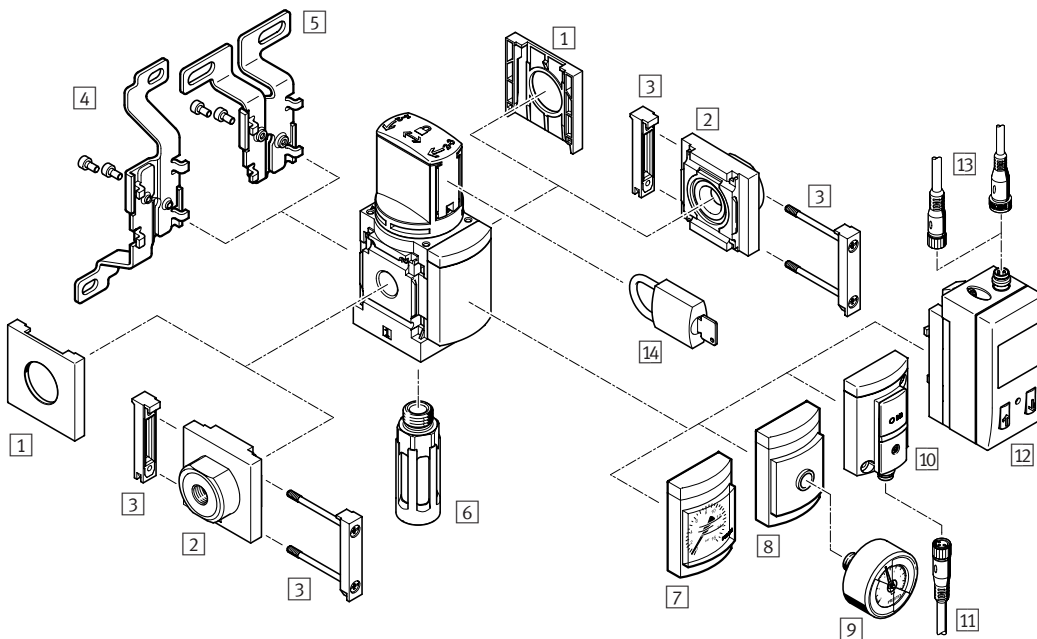
The configurator can be found on the DVD under Products or at [→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Size	Connection	Without silencer		With silencer	
		Type	Part No.	Type	Part No.
MS4	G $\frac{1}{4}$	MS4-EM1-1/4	541258	MS4-EM1-1/4-S	541259
MS6	G $\frac{1}{2}$	MS6-EM1-1/2	541267	MS6-EM1-1/2-S	541268
MS9	–			MS9-EM-G-S-VS	562952
Supply voltage 24 V DC					
MS4	G $\frac{1}{4}$	MS4-EE-1/4-10V24	542578	MS4-EE-1/4-10V24-S	542598
MS6	G $\frac{1}{2}$	MS6-EE-1/2-10V24	542582	MS6-EE-1/2-10V24-S	542602
MS9	–			MS9-EE-G-V24-S-VS	562940

Accessories



- 1 Cover cap MS4-END → [ms4-end](#)
- 2 Connecting plate set MS-AG... → [ms4-ag](#)
- 3 Module connector MS-MV → 133
- 4 Mounting bracket MS-WB → 133
- 5 Mounting bracket MS4-WBM → [ms4-wbm](#)
- 6 Silencer U → 175
- 7 MS pressure gauge AG/RG → [ms4-em1](#)
- 8 Adapter plate for EN pressure gauge 1/8/1/4 A8/A4 → [ms4-em1](#)
- 9 Pressure gauge MA → [ma](#)
- 10 Pressure sensor without display AD7 ... AD4 → [ms4-em1](#)
- 11 Connecting cable NEBU-M8...-LE3 → [nebu](#)
- 12 Pressure sensor with display AD1 ... AD4 → [ms4-em1](#)
- 13 Connecting cable NEBU-M8...-LE3/NEBU-M12...-LE4 → [nebu](#)
- 14 Padlock LRVS-D → [lrvs](#)

Mounting bracket MS-WP → 133
Mounting bracket MS-WPB → 133
Mounting bracket MS-WPM → 133

- Connection G1/4, G1/2
- Flow rate 1000 ... 6,450 l/min
- Operating pressure 3 ... 18 bar

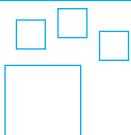
- ## Type codes – Basic design

[illegible]

- Connecting plates
- Supply voltage
- Pressure gauge/pressure gauge alternatives

- Alternative pressure gauge scale
- Type of mounting
- Manipulation protection
- EU certification
- UL certification
- Flow direction

Ordering data – Variants

Configurable
product

**This product and all its variants
can be ordered using the
configurator.**

The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...

Enter the type or configuration
part number in the search field.

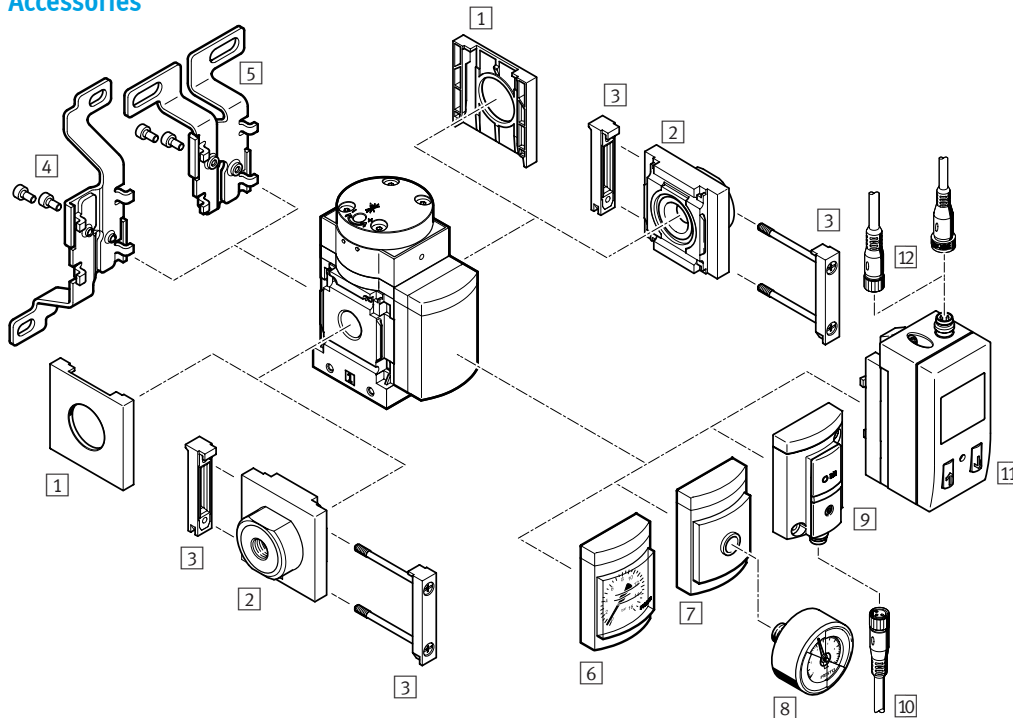
Soft-start and exhaust valves MS4/MS6-DL, MS6/MS9-SV, MS series

FESTO

Ordering data – Basic design

		Soft-start valve MS4/MS6-DL		Soft-start/quick exhaust valve MS6/9-SV-C	
Size	Connection	Type	Part No.	Type	Part No.
MS4	G $\frac{1}{4}$	MS4-DL-1/4	529531		
MS6	G $\frac{1}{2}$	MS6-DL-1/2	529817		
Cover plate					
MS6	G $\frac{1}{2}$			MS6-SV- $\frac{1}{2}$ -C-10V24-S	8001469
MS9	–			MS9-SV-G-CV24-S-VS	570737

Accessories



- 1 Cover cap MS4-END → [ms4-end](#)
 - 2 Connecting plate set MS-AG... → [ms4-ag](#)
 - 3 Module connector MS-MV → 133
 - 4 Mounting bracket MS-WB → 133
 - 5 Mounting bracket MS4-WBM → [ms4-wbm](#)
 - 6 MS pressure gauge AG/RG → [ms4-dl](#)
 - 7 Adapter plate for EN pressure gauge 1/8/1/4 A8/A4 → [ms4-dl](#)
 - 8 Pressure gauge MA → [ma](#)
 - 9 Pressure sensor without display AD7 ... AD4 → [ms4-dl](#)
 - 10 Connecting cable NEBU-M8...-LE3 → [nebu](#)
 - 11 Pressure sensor with display AD1 ... AD4 → [ms4-dl](#)
 - 12 Connecting cable NEBU-M8...-LE3/NEBU-M12...-LE4 → [nebu](#)
- Mounting bracket MS-WP → 133
 Mounting bracket MS-WPB → 133
 Mounting bracket MS-WPM → 133

Service unit combinations, D series, polymer design

FESTO



LFR-KB



LFR-KC

- For unlubricated compressed air supply
- The operating pressure can be switched on or off
- Standard nominal flow rate 1,900 l/min
- Operating pressure 1.5 ... 10 bar
- Grade of filtration 40 µm
- Pressure gauge, turned manually

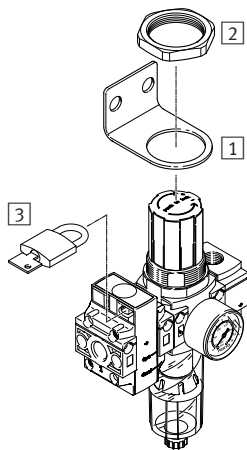
Type codes

		LFR	–	1/4	–	DB	–	7	–	MINI	
Basic function											
LFR	Service unit combination										
Pneumatic connection											
1/4	Thread G $\frac{1}{4}$										
Series											
DB	D series, polymer design										
Pressure regulation range											
7	0.5 ... 7 bar										
Size											
MINI	Grid dimension 40 mm										
Options for service unit combinations											
KB	Manually operated on-off valve, filter regulator and distributor module										
KC	Manually operated on-off valve and filter regulator										

Ordering data

Size	Connection	Service unit combination LFR-KB		Service unit combination LFR-KC	
		Type	Part No.	Type	Part No.
		– On-off valve, manually operated – Filter regulator – Distributor		– On-off valve, manually operated – Filter regulator	
Mini	G $\frac{1}{4}$	LFR-1/4-DB-7-MINI-KB	8002798	LFR-1/4-DB-7-MINI-KC	8002799

Accessories



1 Mounting bracket HR-D → 140

2 Hex nut HMR → hmr

3 Padlock LRVS → lrvs

Filter cartridge MS4-LFP-E → ms4-lfp

3 Mounting bracket HR-D

Size	Type	Part No.
Mini	HR-D-MINI	164936

Filter regulators LFR and pressure regulators LR, D series, polymer design

FESTO



LFR-1/4-DB



LR-1/4-DB

Filter regulator LFR

- Ensures setting values with detent on the rotary knob
- Filter and regulating function in one device saves space
- Good regulating characteristics with low hysteresis
- Good particle separation and high flow rate of 500 ... 1,200 l/min

Pressure regulator LR

- Ensures setting values with detent on the rotary knob
- Good regulating characteristics with low pressure hysteresis
- High flow rate 800 ... 1,300 l/min
- Operating pressure 1,5 ... 10 bar

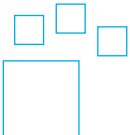
Type codes – Basic design

		-		-	DB	-	7	-		-	MINI	-	
Basic function													
LFR	Filter regulator												
LR	Pressure regulator												
Pneumatic connection													
MINI													
1/8	Thread G1/8												
1/4	Thread G1/4												
Series													
DB	D series, polymer design												
Pressure regulation range													
7	0,5 ... 7 bar												
Grade of filtration													
-	40 µm												
5M	5 µm												
Pressure gauge													
-	With pressure gauge												
Size													
MINI	Grid dimension 40 mm												
Condensate drain													
-	Manual rotary												
H	Halbautomatisch												

Variants

Pressure gauge: without pressure gauge

LRB-K: pressure regulator combinations

Ordering data – Variants

Configurable product

This product and all its variants can be ordered using the configurator.

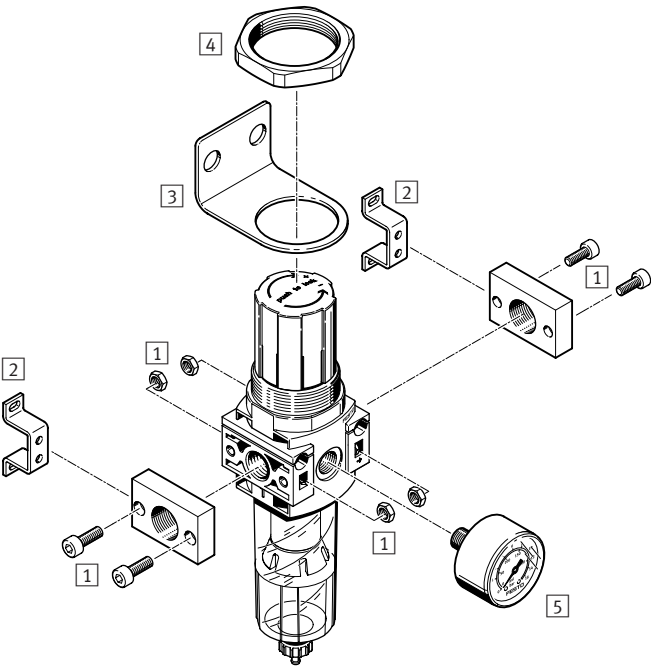
The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Size	Connection	Filter regulators LFR, DB series				Pressure regulator LR, Baureihe DB	
		Grade of filtration 5 µm		Grade of filtration 40 µm			
		Type	Part No.	Type	Part No.	Type	Part No.
		Manual rotary condensate drain				With pressure gauge	
Mini	G¼	LFR-1/4-DB-7-5M-MINI	539689	LFR-1/4-DB-7-MINI	539685	LR-1/4-DB-7-MINI	539682
		Semi-automatic condensate drain					
Mini	G¼	LFR-1/4-DB-7-5M-MINI-H	539690	LFR-1/4-DB-7-MINI-H	539686		

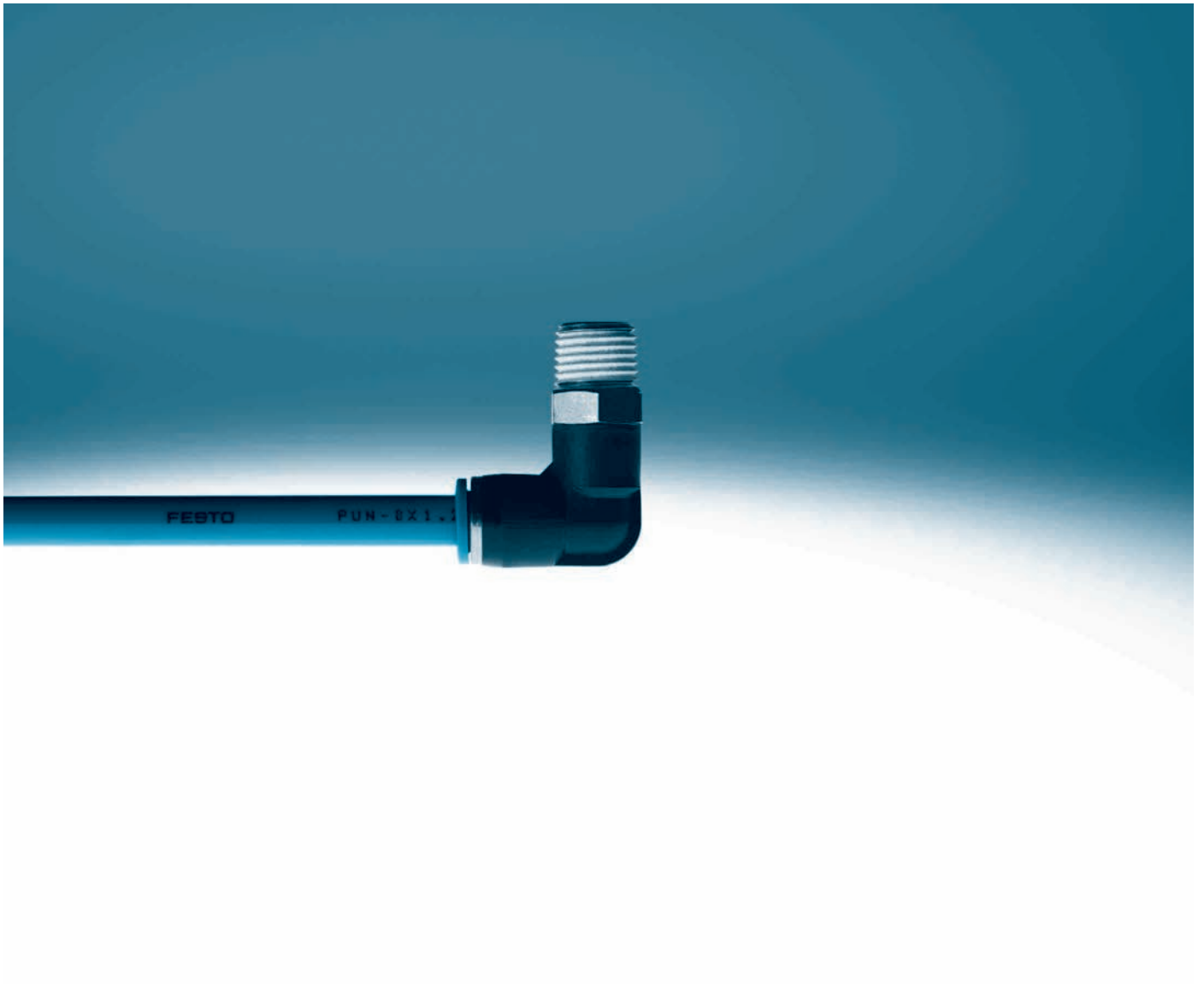
Accessories



- 1 Connector kit PBL → [pbl](#)
- 2 Mounting bracket HFOE → 142
- 3 Mounting bracket HR-D → 142
- 4 LFR: Hex nut HMR → [hmr](#)
LR: Knurled nut LRVS (included in scope of delivery)
- 5 Pressure gauge MA → [ma](#)

2 Mounting bracket HFOE		
Size	Type	Part No.
Mini	HFOE-D-MINI	159638

3 Mounting bracket HR-D		
Size	Type	Part No.
Mini	HR-D-MINI	164936



Tubing

Standard O.D. tubing

Plastic tubing

PUN

- High resistance to stress cracks
- 146



Plastic tubing

PUN-H

- Resistant to hydrolysis
- [pun-h](#)



Plastic tubing

PEN

- Resistant to cleaning agents
- 146



Plastic tubing

PLN

- Resistant to cleaning agents
- [pln](#)



Fittings

Push-in fittings

Push-in fitting

QS, standard

- Extensive range
 - Temperature range up to 80 °C, pressure range up to 14 bar
- 149



Push-in fitting

QSM, mini

- Compact for maximum component density in confined spaces
 - Temperature range up to 80 °C, pressure range up to 14 bar
- 156



Push-in fitting

QS-B, core functionality

- For core pneumatic applications
 - Temperature range up to 60 °C, pressure range up to 10 bar
- 160



Push-in bulkhead connector QSSK

- Temperature range up to 80 °C, pressure range up to 6 bar
- 164



Push-in fitting

NPQM

- Solid-metal variant
 - Temperature range up to 70 °C, pressure range up to 16 bar
- 165



Push-in fitting

NPQH

- Solid metal push-in fitting with chrome-plated surface finish
 - Temperature range up to 150 °C, pressure range up to 20 bar
- [npqh](#)



Threaded fittings

Threaded fitting

NPFC

- Resistant to mechanical loads
 - Temperature range up to 150 °C, pressure range up to 50 bar
- 169



Distributors

Multiple distributor QSLV

- Up to 6 outlets
 - Easy insertion of tubing
 - Easy release
- 173



Silencers

Silencer AMTE

- Suitable for reducing noise at the exhaust ports of pneumatic systems

→ 174



Silencer U/UC/UO

- For noise reduction and avoiding contamination at the exhaust ports of pneumatic components

→ 175



Variety is standard at Festo

Our range of tubing and fittings covers every conceivable task. Regardless of whether your selection is determined by standard requirements or extreme conditions such as

heat, welding spatter, high pH values or resistance to hydrolysis – at Festo you'll always find the right tubing/fitting combination.

Tubing

Materials	Polyurethane (PU)					Polyethylene (PE)		Polyamide (PA)				Perfluoroalkoxy alkane
Designation	PUN/PUN-DUO → 146	PUN-H/ PUN-H-DUO → 146	PUN-CM → pun	PUN-VO → pun-vo	PUN-VO-C → pun-vo	PEN → 146	PLN → pln	PAN → pan	PAN-R → pan-r	PAN-VO → pan-vo	PAN-MF → pan-mf	PFAN → pfan
Operating medium	Compressed air, vacuum	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum, Wasser ¹⁾	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum	Compressed air, vacuum	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum	Compressed air, vacuum, water ¹⁾
Temperature [°C]	-35 ... +60	-35 ... +60	-35 ... +60	-35 ... +60	-35 ... +60	-30 ... +60	-30 ... +80	-30 ... +80	-30 ... +80	-30 ... +90	-60 ... +100	-20 ... +150
Temperature-dependent operating pressure [bar]	-0,95 ... +10	-0,95 ... +10	-0,95 ... +10	-0,95 ... +10	-0,95 ... +10	-0,95 ... +10	-0,95 ... +14	-0,95 ... +19	-0,95 ... +35	-0,95 ... +12	-0,95 ... +31	-0,95 ... +16
Resistant to chemicals	–	+	+	+	+	++	++	+	+	+	+	+++
Food safe ²⁾	–	+++ FDA	–	–	–	–	+++ EG 1935/2004	–	–	–	–	+++ FDA
Hydrolysis resistant	+	++	++	++	++	+++	+++	++	++	++	++	+++
Fire tested	–	–	–	UL 94 DIN 5510-2	UL 94 DIN 5510-2	–	–	–	–	UL 94	–	UL 94
Halogen-free	+++	+++	+++	+++	+++	+++	+++	+++	+++	–	+++	–
Flexibility	+++	+++	++	++	++	++	+	++	+	++	+	+
Special features	Wide choice of variants	Hydrolysis resistant	Antistatic	Flame-retardant	Resistant to welding spatter	Suitable for use with energy chains	Weather resistant	High load capacity	Suitable for pressure up to 35 bar	Resistant to welding spatter	DIN 73378 Automotive approval certificate	Highly resistant to chemicals

1) Other media on request

2) Suitable for use with food as per manufacturer's declaration

Fittings

Materials	Plastic					Metal				
Designation	NPKA → npka	NPQP → npqp	QS(M) → 149	QS(M)-B → 160	QS-VO → qs-vo	NPQM → 165	NPQH → npqh	NPFC → 169	NPCK → npck	CRQS → crqs
Operating medium	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum ¹⁾	Compressed air, vacuum, water ¹⁾	Compressed air, vacuum, water ¹⁾
Temperature [°C]	-10 ... +60	-20 ... +60	-10 ... +80	-10 ... +60	0 ... +60	-20 ... +70	0 ... +150	-20 ... +150	-20 ... +120	-15 ... +120
Temperature-dependent operating pressure [bar]	-0,95 ... +10	-0,95 ... +10	-0,95 ... +14	-0,95 ... +10	-0,95 ... +10	-0,95 ... +16	-0,95 ... +20	-0,95 ... +50	-0,95 ... +12	-0,95 ... +10
Housing material	POM and PA66	PP	PBT and nickel-plated brass	PBT and nickel-plated brass	PBT	Nickel-plated brass	Nickel-plated brass	Nickel-plated brass	Stainless steel	Stainless steel
Thread	G thread	R thread	M, G and R thread	M and R thread	G and R thread	M and G thread	M and G thread	M, G and R thread	M and G thread	M and R thread
Resistant to chemicals	++	+++	+	+	+	+	++	+	+++	+++
Food safe ²⁾	+++ FDA	+++ FDA	–	–	–	–	+++ FDA	–	+++ FDA	+++ EG 1935/2004
Corrosion resistance class (CRC)	4	4	1	1	1	1	3	1	4	4
Special features	Cleanroom-compatible, 100% polymer	FDA-compliant internal and external parts	Wide choice of variants	Economical	Resistant to welding spatter	Robust	Resistant to high temperatures	Efficient, suitable for high pressures	Clean Design	Highly resistant to corrosion

1) Other media on request

2) Suitable for use with food as per manufacturer's declaration

Reliable selection has never been this easy: our product finder for tubing and fittings helps you to select a tailored combination

Get started by following these links:

→ www.festo.com/productfinder/tubing

→ www.festo.com/productfinder/fittings

Plastic tubing PUN/PEN, standard O.D.

FESTO



- Suitable for every application: food industry approval, flame retardant to UL 94 V0, anti-static, halogen-free, hydrolysis resistant, suitable for use with energy chains, free of paint-wetting impairment substances to FN 942 010
- Individual configuration for plastic tubing
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

Type codes – Basic design

Material	
PUN	Polyurethane
PEN	Polyethylene

Approval	
H	Hydrolysis resistant, approved for use in the food industry.

O.D. x wall thickness [mm]	
2x0,4	2.0 x 0.4
3x0,5	3.0 x 0,5
4x0,75	4.0 x 0.75
6x1	6.0 x 1.0
8x1	8.0 x 1.0
8x1,25	8.0 x 1.25
10x1,5	10 x 1.5
12x1,75	12.0 x 1.75
12x2	12.0 x 2.0
14x2	14.0 x 2.0
16x2,5	16.0 x 2.5

Colour	
SW	Black
BL	Blue
SI	Silver
NT	Natural

Packaging unit [m]	
	50
100	100
200	200
300	300
400	400
500	500

Variants

Materials:

PAN Polyamide

PFAN Perfluoroalkoxy alkane

Approvals:

Food industry approval:

Type PLN, PFAN, PUN-H

CM Anti-static

H Hydrolysis resistant

V0 Flame retardant to UL 94 V0

R Sturdy

MF Automotive approval certificate

Tubing pair:

DUO duo tubing

Colours:

GN green

RT red

WS white

GE yellow

BR brown

BS blue/black

Ordering data – Variants

	Configurable product	This product and all its variants can be ordered using the configurator.	The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...	Enter the type or configuration part number in the search field.
--	-----------------------------	---	---	--

Ordering data – Basic design

O.D. [mm]	Colour	PUN: Polyurethane		PUN-H: Polyurethane, hydrolysis resistant		PEN: Polyethylene	
		Type	Part No.	Type	Part No.	Type	Part No.
2.0	Black			PUN-H-2x0,4-SW	133039		
3.0	Black	PUN-3X0,5-SW	159661	PUN-H-3x0,5-SW	197389		
	Black	PUN-3X0,5-SW-500	553936	PUN-H-3x0,5-SW-500	558249		
	Blue	PUN-3x0,5-BL	159660	PUN-H-3x0,5-BL	197382		
	Blue	PUN-3x0,5-BL-500	525745	PUN-H-3x0,5-BL-500	558256		
	Silver	PUN-3x0,5-SI	152583	PUN-H-3x0,5-SI	558277		
	Silver	PUN-3x0,5-SI-500	525738	PUN-H-3x0,5-SI-500	558270		
4.0	Black	PUN-4X0,75-SW	159663	PUN-H-4x0,75-SW	197390	PEN-4X0,75-SW	543240
	Black	PUN-4X0,75-SW-500	553937	PUN-H-4x0,75-SW-500	558250	PEN-4x0,75-SW-500	551438
	Blue	PUN-4x0,75-BL	159662	PUN-H-4x0,75-BL	197383	PEN-4x0,75-BL	551456
	Blue	PUN-4x0,75-BL-500	525746	PUN-H-4x0,75-BL-500	558257	PEN-4x0,75-BL-500	551444
	Silver	PUN-4x0,75-SI	152584	PUN-H-4x0,75-SI	558278	PEN-4x0,75-SI	551462
	Silver	PUN-4x0,75-SI-500	525739	PUN-H-4x0,75-SI-500	558271	PEN-4x0,75-SI-500	551450
	Natural					PEN-4x0,75-SI-500	551450
	Natural					PEN-4x0,75-SI-500	551450
6.0	Black	PUN-6X1-SW	159665	PUN-H-6x1-SW	197391	PEN-6x1-SW	543241
	Black	PUN-6X1-SW-500	553938	PUN-H-6x1-SW-500	558251	PEN-6x1-SW-500	551439
	Blue	PUN-6x1-BL	159664	PUN-H-6x1-BL	197384	PEN-6x1-BL	551457
	Blue	PUN-6x1-BL-500	525747	PUN-H-6x1-BL-500	558258	PEN-6x1-BL-500	551445
	Silver	PUN-6x1-SI	152586	PUN-H-6x1-SI	558279	PEN-6x1-SI	551463
	Silver	PUN-6x1-SI-500	525740	PUN-H-6x1-SI-500	558272	PEN-6x1-SI-500	551451
	Natural					PEN-6x1-SI-500	551451
	Natural					PEN-6x1-SI-500	551451
8.0	Black	PUN-8X1,25-SW	159667	PUN-H-8x1,25-SW	197392	PEN-8X1,25-SW	543242
	Black	PUN-8X1,25-SW-400	553939	PUN-H-8x1,25-SW-400	558252	PEN-8x1,25-SW-400	551440
	Blue	PUN-8x1,25-BL	159666	PUN-H-8x1,25-BL	197385	PEN-8x1,25-BL	551458
	Blue	PUN-8x1,25-BL-400	525748	PUN-H-8x1,25-BL-400	558259	PEN-8x1,25-BL-400	551446
	Silver	PUN-8x1,25-SI	152587	PUN-H-8x1,25-SI	558280	PEN-8x1,25-SI	551464
	Silver	PUN-8x1,25-SI-400	525741	PUN-H-8x1,25-SI-400	558273	PEN-8x1,25-SI-400	551452
	Natural					PEN-8x1,25-SI-400	551452
	Natural					PEN-8x1,25-SI-400	551452
10.0	Black	PUN-10X1,5-SW	159669	PUN-H-10x1,5-SW	197393	PEN-10X1,5-SW	543243
	Black	PUN-10X1,5-SW-300	553940	PUN-H-10x1,5-SW-300	558253	PEN-10x1,5-SW-300	551441
	Blue	PUN-10x1,5-BL	159668	PUN-H-10x1,5-BL	197386	PEN-10x1,5-BL	551459
	Blue	PUN-10x1,5-BL-300	525749	PUN-H-10x1,5-BL-300	558260	PEN-10x1,5-BL-300	551447
	Silver	PUN-10x1,5-SI	152588	PUN-H-10x1,5-SI	558281	PEN-10x1,5-SI	551465
	Silver	PUN-10x1,5-SI-300	525742	PUN-H-10x1,5-SI-300	558274	PEN-10x1,5-SI-300	551453
	Natural					PEN-10x1,5-SI-300	551453
	Natural					PEN-10x1,5-SI-300	551453
12.0	Black	PUN-12X2-SW	159671	PUN-H-12x2-SW	197394	PEN-12X1,75-SW	543244
	Black	PUN-12X2-SW-200	553941	PUN-H-12x2-SW-200	558254	PEN-12x1,75-SW-200	551442
	Blue	PUN-12x2-BL	159670	PUN-H-12x2-BL	197387	PEN-12x1,75-BL	551460
	Blue	PUN-12x2-BL-200	525750	PUN-H-12x2-BL-200	558261	PEN-12x1,75-BL-200	551448
	Silver	PUN-12x2-SI	152589	PUN-H-12x2-SI	558282	PEN-12x1,75-SI	551466
	Silver	PUN-12x2-SI-200	525743	PUN-H-12x2-SI-200	558275	PEN-12x1,75-SI-200	551454
	Natural					PEN-12x1,75-SI-200	551454
	Natural					PEN-12x1,75-SI-200	551454

Plastic tubing PUN/PEN, standard O.D.

Ordering data – Basic design

O.D. [mm]	Colour	PUN: Polyurethane		PUN-H: Polyurethane, hydrolysis resistant		PEN: Polyethylene	
		Type	Part No.	Type	Part No.	Type	Part No.
14.0	Black	PUN-14X2-SW	570391	PUN-H-14x2-SW	570387	PEN-14x2-SW	570516
	Blue	PUN-14x2-BL	570390	PUN-H-14x2-BL	570386		
	Silver	PUN-14x2-SI	570389				
	Natural					PEN-14x2-NT	570517
16.0	Black	PUN-16X2,5-SW	159673	PUN-H-16x2,5-SW	197395	PEN-16X2,5-SW	543245
	Black	PUN-16X2,5-SW-100	553942	PUN-H-16x2,5-SW-100	558255	PEN-16x2,5-SW-100	551443
	Blue	PUN-16x2,5-BL	159672	PUN-H-16x2,5-BL	197388	PEN-16x2,5-BL	551461
	Blue	PUN-16x2,5-BL-100	525751	PUN-H-16x2,5-BL-100	558262	PEN-16x2,5-BL-100	551449
	Silver	PUN-16x2,5-SI	152590	PUN-H-16x2,5-SI	558283	PEN-16x2,5-SI	551467
	Silver	PUN-16x2,5-SI-100	525744	PUN-H-16x2,5-SI-100	558276	PEN-16x2,5-SI-100	551455
	Natural					PEN-16X2,5-NT	543251

Possible fittings

Fitting		PUN	PUN-H	PEN
Push-in fitting QS, standard series → 149		■ Recommended fitting	■ Recommended fitting	■
Push-in fitting QS-B, core functionality → qs-b		■	■	■ Recommended fitting
Push-in fitting NPQH, metal → npqh		■	■ Recommended fitting	■
Push-in fitting NPQM → 165		■	■	■
Quick connector CK → ck		■	■	■



QS-G1/4-8-I



QSF-1/8-4-B



QSL-1/8-6



QST-1/8-6



QSW-1/8-6



QSY-8



QSS-4



QSC-6H

- Simple and reliable connection and release
- Wide range of variants: standard, mini size, metal, stainless steel, flame-retardant with R, G, NPT and metric thread

- Selected types in accordance with ATEX directive for potentially explosive atmospheres

→ www.festo.com/en/ex

Type codes – Basic design

QS, standard series							
QS	Straight						
QSF	Straight						
QSL	L-shape						
QSLF	L-shape						
QSLV	L-shape						
QST	T-shape						
QSW	W-shape						
QSY	Y-shape						
QSS	Push-in bulkhead connector						
QSC-...H	Blanking plug						
Pneumatic connection 1							
G thread		R thread					
G1/8	G1/8	1/8	R1/8				
G1/4	G1/4	1/4	R1/4				
G3/8	G3/8	3/8	R3/8				
G1/2	G1/2	1/2	R1/2				
Push-in connector		Push-in sleeve					
4	4 mm	4	4 mm				
6	6 mm	6	6 mm				
8	8 mm	8	8 mm				
10	10 mm	10	10 mm				
12	12 mm	12	12 mm				
16	16 mm						
Pneumatic connection 2							
Push-in connector		Push-in sleeve					
4	4 mm	4	4 mm				
6	6 mm	6	6 mm				
8	8 mm	8	8 mm				
10	10 mm	10	10 mm				
12	12 mm	12	12 mm				
16	16 mm	16	16 mm				
Packaging unit							
	10 pieces						
20	20 pieces						
50	50 pieces						
100	100 pieces						

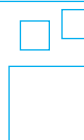
Push-in fittings QS – Standard series

FESTO

Variants

Type	Design	Version	Connection																
			M thread		R thread				G thread				For tubing O.D.						
			M5	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	3	4	6	8	10	12	16	
QS, standard series																			
QS	Straight	Push-in fitting	—	■	■	■	■	■	■	■	■	—	■	■	■	■	■	■	■
		Push-in connector	—	—	—	—	—	—	—	—	—	—	■	■	■	■	■	■	■
QSF		Push-in fitting	—	—	—	—	—	■	■	■	■	—	■	■	■	■	■	■	■
QSS		Push-in bulkhead connector	—	—	—	—	—	—	—	—	—	—	■	■	■	■	■	■	—
QSL	L-shape	Push-in fitting	■	■	■	■	■	■	■	■	■	—	■	■	■	■	■	■	■
		Push-in connector	—	—	—	—	—	—	—	—	—	—	■	■	■	■	■	■	■
QST	T-shape	Push-in fitting	—	■	■	■	■	■	■	■	■	—	■	■	■	■	■	■	■
		Push-in connector	—	—	—	—	—	—	—	—	—	—	■	■	■	■	■	■	■
QSW	W-shape	Push-in fitting	—	■	■	■	■	—	—	—	—	—	■	■	■	■	■	■	■
		Push-in connector	—	—	—	—	—	—	—	—	—	—	■	■	■	■	■	■	—
QSX	X-shape	Push-in connector	—	—	—	—	—	—	—	—	—	—	—	—	■	■	■	■	—
QSY	Y-shape	Push-in fitting	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	—
QS-F, metal																			
CRQS, stainless steel																			
QS-V0, flame-retardant																			

Ordering data – Variants



Configurable
product

This product and all its variants
can be ordered using the
configurator.

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration
part number in the search field.

Ordering data – Basic design

Push-in fitting QS, straight design

Connection 1 | Connection 2 | Type



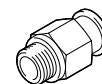
Part No.

R thread (male thread with external hex/push-in connector)

R1/8	4 mm	QS-1/8-4	153001
	6 mm	QS-1/8-6	153002
	8 mm	QS-1/8-8	153004
		QS-1/8-8-50	130676
	10 mm	QS-1/8-10	190643
R1/4	4 mm	QS-1/4-4	190644
	6 mm	QS-1/4-6	153003
	8 mm	QS-1/4-8	153005
		QS-1/4-8-50	130678
	10 mm	QS-1/4-10	153007
		QS-1/4-10-50	130679
R3/8	12 mm	QS-1/4-12	164980
	6 mm	QS-3/8-6	190645
	8 mm	QS-3/8-8	153006
	10 mm	QS-3/8-10	153008
	12 mm	QS-3/8-12	153009
R1/2	16 mm	QS-3/8-16	164957
	10 mm	QS-1/2-10	190646
	12 mm	QS-1/2-12	153010
	16 mm	QS-1/2-16	153011
		QS-1/2-16-20	130685

Push-in fitting QS, straight design

Connection 1 | Connection 2 | Type



Part No.

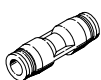
G thread (male thread with external hex/push-in connector)

G1/8	4 mm	QS-G1/8-4	186095
	6 mm	QS-G1/8-6	186096
	8 mm	QS-G1/8-8	186098
G1/4	6 mm	QS-G1/4-6	186097
	8 mm	QS-G1/4-8	186099
	10 mm	QS-G1/4-10	186101
	12 mm	QS-G1/4-12	186350
G3/8	8 mm	QS-G3/8-8	186100
	10 mm	QS-G3/8-10	186102
	12 mm	QS-G3/8-12	186103
	16 mm	QS-G3/8-16	186347
G1/2	12 mm	QS-G1/2-12	186104
	16 mm	QS-G1/2-16	186105

Ordering data – Basic design

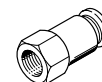
Push-in connector QS, straight design

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QS-4	153031
6 mm	6 mm	QS-6	153032
8 mm	8 mm	QS-8	153033
		QS-8-50	130688
10 mm	10 mm	QS-10	153034
12 mm	12 mm	QS-12	153035
16 mm	16 mm	QS-16	153036
Push-in connector/push-in connector, reducing			
6 mm	4 mm	QS-6-4	153037
8 mm	4 mm	QS-8-4	130606
	6 mm	QS-8-6	153038
10 mm	6 mm	QS-10-6	130607
	8 mm	QS-10-8	153039
12 mm	8 mm	QS-12-8	130608
	10 mm	QS-12-10	153040



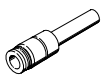
Push-in fitting QSF, straight design

Connection 1	Connection 2	Type	Part No.
G thread (female thread with external hex)/push-in connector			
G1/8	4 mm	QSF-1/8-4-B	153022
	6 mm	QSF-1/8-6-B	153023
	8 mm	QSF-1/8-8-B	153025
G1/4	4 mm	QSF-1/4-4-B	190650
	6 mm	QSF-1/4-6-B	153024
	8 mm	QSF-1/4-8-B	153026
	10 mm	QSF-1/4-10-B	153028
	12 mm	QSF-1/4-12-B	190651
G3/8	6 mm	QSF-3/8-6-B	190652
	8 mm	QSF-3/8-8-B	153027
	10 mm	QSF-3/8-10-B	153029
	12 mm	QSF-3/8-12-B	153030
G1/2	12 mm	QSF-1/2-12-B	190653
	16 mm	QSF-1/2-16-B	190654



Push-in connector QS-...H, straight design

Connection 1	Connection 2	Type	Part No.
Push-in sleeve/push-in connector, reducing			
6 mm	4 mm	QS-6H-4	153041
8 mm	4 mm	QS-8H-4	130622
	6 mm	QS-8H-6	153042
10 mm	6 mm	QS-10H-6	130623
	8 mm	QS-10H-8	153043
12 mm	6 mm	QS-12H-6	132981
	8 mm	QS-12H-8	130624
	10 mm	QS-12H-10	153044



Push-in fitting QSL, L-shape, 360° rotatable

Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QSL-1/8-4	153045
	6 mm	QSL-1/8-6	153046
	8 mm	QSL-1/8-8	153048
		QSL-1/8-8-50	130730
	10 mm	QSL-1/8-10	190658
R1/4	4 mm	QSL-1/4-4	190659
	6 mm	QSL-1/4-6	153047
		QSL-1/4-6-100	130731
	8 mm	QSL-1/4-8	153049
		QSL-1/4-8-50	130732
	10 mm	QSL-1/4-10	153051
		QSL-1/4-10-50	130733
	12 mm	QSL-1/4-12	164981
R3/8	6 mm	QSL-3/8-6	190660
	8 mm	QSL-3/8-8	153050
	10 mm	QSL-3/8-10	153052
	12 mm	QSL-3/8-12	153053
	16 mm	QSL-3/8-16	164958
R1/2	10 mm	QSL-1/2-10	190661
	12 mm	QSL-1/2-12	153054
	16 mm	QSL-1/2-16	153055
		QSL-1/2-16-20	130739
G thread (male thread with external hex)/push-in connector			
G1/8	4 mm	QSL-G1/8-4	186116
	6 mm	QSL-G1/8-6	186117
	8 mm	QSL-G1/8-8	186119
G1/4	6 mm	QSL-G1/4-6	186118
	8 mm	QSL-G1/4-8	186120
	10 mm	QSL-G1/4-10	186122
	12 mm	QSL-G1/4-12	186351
G3/8	8 mm	QSL-G3/8-8	186121
	10 mm	QSL-G3/8-10	186123
	12 mm	QSL-G3/8-12	186124
	16 mm	QSL-G3/8-16	186348
G1/2	12 mm	QSL-G1/2-12	186125
	16 mm	QSL-G1/2-16	186126



Push-in fitting QS-...I, straight design

Connection 1	Connection 2	Type	Part No.
R thread (male thread with internal hex)/push-in connector			
R1/8	4 mm	QS-1/8-4-I	153012
	6 mm	QS-1/8-6-I	153013
	8 mm	QS-1/8-8-I	153015
	10 mm	QS-1/8-10-I	190647
R1/4	6 mm	QS-1/4-6-I	153014
	8 mm	QS-1/4-8-I	153016
	10 mm	QS-1/4-10-I	153018
	12 mm	QS-1/4-12-I	190649
R3/8	8 mm	QS-3/8-8-I	153017
	10 mm	QS-3/8-10-I	153019
	12 mm	QS-3/8-12-I	153020
R1/2	10 mm	QS-1/2-10-I	190648
	12 mm	QS-1/2-12-I	153021
G thread (male thread with internal hex)/push-in connector			
G1/8	4 mm	QS-G1/8-4-I	186106
	6 mm	QS-G1/8-6-I	186107
	8 mm	QS-G1/8-8-I	186109
	10 mm	QS-G1/8-10-I	132999
G1/4	6 mm	QS-G1/4-6-I	186108
	8 mm	QS-G1/4-8-I	186110
	10 mm	QS-G1/4-10-I	186112
G3/8	8 mm	QS-G3/8-8-I	186111
	10 mm	QS-G3/8-10-I	186113
	12 mm	QS-G3/8-12-I	186114
G1/2	12 mm	QS-G1/2-12-I	186115



Push-in fittings QS – Standard series

FESTO

Ordering data – Basic design

Push-in connector QSL, L-shape

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QSL-4	153070
6 mm	6 mm	QSL-6	153071
8 mm	8 mm	QSL-8	153072
10 mm	10 mm	QSL-10	153073
12 mm	12 mm	QSL-12	153074
16 mm	16 mm	QSL-16	153075



Push-in connector QSL, L-shape

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in sleeve			
4 mm	4 mm	QSL-4H	153056
6 mm	6 mm	QSL-6H	153057
8 mm	8 mm	QSL-8H	153058
10 mm	10 mm	QSL-10H	153059
12 mm	12 mm	QSL-12H	153060
Push-in connector/push-in sleeve, reducing			
6 mm	4 mm	QSL-6H-4	153061
8 mm	6 mm	QSL-8H-6	153062
10 mm	6 mm	QSL-10H-8	153063
12 mm	10 mm	QSL-12H-10	153064
Push-in connector/push-in sleeve, long			
4 mm	4 mm	QSL-4HL	153065
6 mm	6 mm	QSL-6HL	153066
8 mm	8 mm	QSL-8HL	153067
10 mm	10 mm	QSL-10HL	153068
12 mm	12 mm	QSL-12HL	153069



Push-in fitting QSLL, L-shape, long design, 360° rotatable

Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSLL-1/8-4	153076
	6 mm	QSLL-1/8-6	153077
	8 mm	QSLL-1/8-8	153079
R1/4	4 mm	QSLL-1/4-4	190662
	6 mm	QSLL-1/4-6	153078
	8 mm	QSLL-1/4-8	153080
	10 mm	QSLL-1/4-10	153082
R3/8	6 mm	QSLL-3/8-6	190663
	8 mm	QSLL-3/8-8	153081
	10 mm	QSLL-3/8-10	153083
	12 mm	QSLL-3/8-12	153084
R1/2	10 mm	QSLL-1/2-10	190664
	12 mm	QSLL-1/2-12	153085
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSLL-G1/8-4	186127
	6 mm	QSLL-G1/8-6	186128
	8 mm	QSLL-G1/8-8	186130
G1/4	6 mm	QSLL-G1/4-6	186129
	8 mm	QSLL-G1/4-8	186131
	10 mm	QSLL-G1/4-10	186133
	12 mm	QSLL-G1/4-12	132596
G3/8	8 mm	QSLL-G3/8-8	186132
	10 mm	QSLL-G3/8-10	186134
	12 mm	QSLL-G3/8-12	186135
G1/2	12 mm	QSLL-G1/2-12	186136
	16 mm	QSLL-G1/2-16	190665



Push-in fitting QSLF, L-shape, 360° rotatable

Connection 1	Connection 2	Type	Part No.
G thread (female thread with external hex)/push-in connector			
G1/8	4 mm	QSLF-1/8-4-B	153273
	6 mm	QSLF-1/8-6-B	153274
	8 mm	QSLF-1/8-8-B	153276
G1/4	6 mm	QSLF-1/4-6-B	153275
	8 mm	QSLF-1/4-8-B	153277
	10 mm	QSLF-1/4-10-B	153279
G3/8	8 mm	QSLF-3/8-8-B	153278
	10 mm	QSLF-3/8-10-B	153280



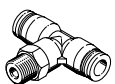
Push-in fitting QSLV, L-shape, 360° rotatable

Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M5	6 mm	QSLV-M5-6	190666
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSLV-1/8-4	153086
	6 mm	QSLV-1/8-6	153087
	8 mm	QSLV-1/8-8	153089
R1/4	6 mm	QSLV-1/4-6	153088
	8 mm	QSLV-1/4-8	153090
	10 mm	QSLV-1/4-10	153092
R3/8	8 mm	QSLV-3/8-8	153091
	10 mm	QSLV-3/8-10	153093
	12 mm	QSLV-3/8-12	153094
R1/2	12 mm	QSLV-1/2-12	153095
	16 mm	QSLV-1/2-16	153096
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSLV-G1/8-4	186137
	6 mm	QSLV-G1/8-6	186138
	8 mm	QSLV-G1/8-8	186140
G1/4	6 mm	QSLV-G1/4-6	186139
	8 mm	QSLV-G1/4-8	186141
	10 mm	QSLV-G1/4-10	186143
G3/8	8 mm	QSLV-G3/8-8	186142
	10 mm	QSLV-G3/8-10	186144
	12 mm	QSLV-G3/8-12	186145
G1/2	12 mm	QSLV-G1/2-12	186146
	16 mm	QSLV-G1/2-16	186147

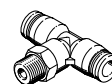


Ordering data – Basic design
**Push-in fitting QSLV-...-I, L-shape,
360° rotatable**


Connection 1	Connection 2	Type	Part No.
R thread (male thread with internal hex)/push-in connector			
R1/8	6 mm	QSLV-1/8-6-I	153097
	8 mm	QSLV-1/8-8-I	153099
R1/4	6 mm	QSLV-1/4-6-I	153098
	8 mm	QSLV-1/4-8-I	153100
	10 mm	QSLV-1/4-10-I	153102
R3/8	8 mm	QSLV-3/8-8-I	153101
	10 mm	QSLV-3/8-10-I	153103
	12 mm	QSLV-3/8-12-I	153104
R1/2	12 mm	QSLV-1/2-12-I	153105
G thread (male thread with internal hex)/push-in connector			
G1/8	6 mm	QSLV-G1/8-6-I	186148
	8 mm	QSLV-G1/8-8-I	186150
G1/4	6 mm	QSLV-G1/4-6-I	186149
	8 mm	QSLV-G1/4-8-I	186151
	10 mm	QSLV-G1/4-10-I	186153
G3/8	8 mm	QSLV-G3/8-8-I	186152
	10 mm	QSLV-G3/8-10-I	186154
	12 mm	QSLV-G3/8-12-I	186155
G1/2	12 mm	QSLV-G1/2-12-I	186156

**Push-in fitting QST, T-shape,
360° rotatable**


Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QST-1/8-4	153106
	6 mm	QST-1/8-6	153107
	8 mm	QST-1/8-8	153109
	10 mm	QST-1/8-10	190667
R1/4	4 mm	QST-1/4-4	190668
	6 mm	QST-1/4-6	153108
	8 mm	QST-1/4-8	153110
	10 mm	QST-1/4-10	153112
	12 mm	QST-1/4-12	190669
R3/8	6 mm	QST-3/8-6	190670
	8 mm	QST-3/8-8	153111
	10 mm	QST-3/8-10	153113
	12 mm	QST-3/8-12	153114
	16 mm	QST-3/8-16	164959
R1/2	10 mm	QST-1/2-10	190672
	12 mm	QST-1/2-12	153115
	16 mm	QST-1/2-16	153116

**Push-in fitting QST, T-shape,
360° rotatable**


Connection 1	Connection 2	Type	Part No.
G thread (male thread with external hex)/push-in connector			
G1/8	4 mm	QST-G1/8-4	186157
	6 mm	QST-G1/8-6	186158
	8 mm	QST-G1/8-8	186160
G1/4	6 mm	QST-G1/4-6	186159
	8 mm	QST-G1/4-8	186161
	10 mm	QST-G1/4-10	186163
	12 mm	QST-G1/4-12	132597
G3/8	8 mm	QST-G3/8-8	186162
	10 mm	QST-G3/8-10	186164
	12 mm	QST-G3/8-12	186165
	16 mm	QST-G3/8-16	186349
G1/2	12 mm	QST-G1/2-12	186166
	16 mm	QST-G1/2-16	186167

Push-in connector QST, T-shape


Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QST-4	153128
6 mm	6 mm	QST-6	153129
8 mm	8 mm	QST-8	153130
		QST-8-50	130804
10 mm	10 mm	QST-10	153131
		QST-10-50	130805
12 mm	12 mm	QST-12	153132
16 mm	16 mm	QST-16	153133
Push-in connector/push-in connector, reducing			
6 mm	4 mm	QST-6-4	153134
8 mm	4 mm	QST-8-4	130613
	6 mm	QST-8-6	153135
10 mm	6 mm	QST-10-6	130614
	8 mm	QST-10-8	153136
12 mm	8 mm	QST-12-8	130615
	10 mm	QST-12-10	153137
16 mm	12 mm	QST-16-12	130616

Push-in fittings QS – Standard series

FESTO

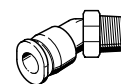
Ordering data – Basic design

Push-in fitting QSTF, T-shape, 360° rotatable



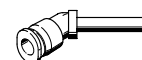
Connection 1	Connection 2	Type	Part No.
R thread (male and female thread with external hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QSTF-1/8-4-B	153182
	6 mm	QSTF-1/8-6-B	153183
	8 mm	QSTF-1/8-8-B	153185
R $\frac{1}{4}$	6 mm	QSTF-1/4-6-B	153184
	8 mm	QSTF-1/4-8-B	153186
	10 mm	QSTF-1/4-10-B	153188
R $\frac{3}{8}$	8 mm	QSTF-3/8-8-B	153187
	10 mm	QSTF-3/8-10-B	153189
	12 mm	QSTF-3/8-12-B	153190
R $\frac{1}{2}$	12 mm	QSTF-1/2-12-B	153191
G thread (male and female thread with external hex)/push-in connector			
G $\frac{1}{8}$	4 mm	QSTF-G1/8-4	186199
	6 mm	QSTF-G1/8-6	186200
	8 mm	QSTF-G1/8-8	186202
G $\frac{1}{4}$	6 mm	QSTF-G1/4-6	186201
	8 mm	QSTF-G1/4-8	186203
	10 mm	QSTF-G1/4-10	186205
G $\frac{3}{8}$	8 mm	QSTF-G3/8-8	186204
	10 mm	QSTF-G3/8-10	186206
	12 mm	QSTF-G3/8-12	186207
G $\frac{1}{2}$	12 mm	QSTF-G1/2-12	186208

Push-in fitting QSW, W-shape, 360° rotatable



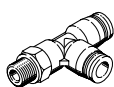
Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QSW-1/8-4	130596
	6 mm	QSW-1/8-6	130597
	8 mm	QSW-1/8-8	130598
R $\frac{1}{4}$	6 mm	QSW-1/4-6	130599
	8 mm	QSW-1/4-8	130600
	10 mm	QSW-1/4-10	130601
R $\frac{3}{8}$	10 mm	QSW-3/8-10	130602
	12 mm	QSW-3/8-12	130603
R $\frac{1}{2}$	12 mm	QSW-1/2-12	130604
	16 mm	QSW-1/2-16	130605

Push-in connector QSW-...HL, W-shape



Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in sleeve			
4 mm	4 mm	QSW-4HL	130617
6 mm	6 mm	QSW-6HL	130618
8 mm	8 mm	QSW-8HL	130619
10 mm	10 mm	QSW-10HL	130620
12 mm	12 mm	QSW-12HL	130621

Push-in fitting QSTL, T-shape, 360° rotatable



Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QSTL-1/8-4	153117
	6 mm	QSTL-1/8-6	153118
	8 mm	QSTL-1/8-8	153120
R $\frac{1}{4}$	6 mm	QSTL-1/4-6	153119
	8 mm	QSTL-1/4-8	153121
	10 mm	QSTL-1/4-10	153123
R $\frac{3}{8}$	8 mm	QSTL-3/8-8	153122
	10 mm	QSTL-3/8-10	153124
	12 mm	QSTL-3/8-12	153125
R $\frac{1}{2}$	12 mm	QSTL-1/2-12	153126
	16 mm	QSTL-1/2-16	153127
G thread (male thread with external hex)/push-in connector			
G $\frac{1}{8}$	4 mm	QSTL-G1/8-4	186168
	6 mm	QSTL-G1/8-6	186169
	8 mm	QSTL-G1/8-8	186171
G $\frac{1}{4}$	6 mm	QSTL-G1/4-6	186170
	8 mm	QSTL-G1/4-8	186172
	10 mm	QSTL-G1/4-10	186174
G $\frac{3}{8}$	8 mm	QSTL-G3/8-8	186173
	10 mm	QSTL-G3/8-10	186175
	12 mm	QSTL-G3/8-12	186176
G $\frac{1}{2}$	12 mm	QSTL-G1/2-12	186177
	16 mm	QSTL-G1/2-16	186178

Push-in fitting QSY, Y-shape, 360° rotatable



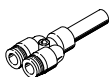
Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex)/push-in connector			
M5	4 mm	QSY-M5-4	190673
	6 mm	QSY-M5-6	190674
R thread (male thread with external hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QSY-1/8-4	153138
	6 mm	QSY-1/8-6	153139
	8 mm	QSY-1/8-8	153141
R $\frac{1}{4}$	4 mm	QSY-1/4-4	190675
	6 mm	QSY-1/4-6	153140
	8 mm	QSY-1/4-8	153142
	10 mm	QSY-1/4-10	153144
R $\frac{3}{8}$	8 mm	QSY-3/8-8	153143
	10 mm	QSY-3/8-10	153145
	12 mm	QSY-3/8-12	153146
R $\frac{1}{2}$	12 mm	QSY-1/2-12	153147
G thread (male thread with external hex)/push-in connector			
G $\frac{1}{8}$	4 mm	QSY-G1/8-4	186179
	6 mm	QSY-G1/8-6	186180
	8 mm	QSY-G1/8-8	186182
G $\frac{1}{4}$	6 mm	QSY-G1/4-6	186181
	8 mm	QSY-G1/4-8	186183
	10 mm	QSY-G1/4-10	186185
G $\frac{3}{8}$	8 mm	QSY-G3/8-8	186184
	10 mm	QSY-G3/8-10	186186
	12 mm	QSY-G3/8-12	186187
G $\frac{1}{2}$	12 mm	QSY-G1/2-12	186188

Ordering data – Basic design

Push-in connector QSY, Y-shape			
Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QSY-4	153148
6 mm	6 mm	QSY-6	153149
8 mm	8 mm	QSY-8	153150
10 mm	10 mm	QSY-10	153151
12 mm	12 mm	QSY-12	153152
16 mm	16 mm	QSY-16	130609
Push-in connector/push-in connector, reducing			
6 mm	4 mm	QSY-6-4	153153
8 mm	4 mm	QSY-8-4	130610
	6 mm	QSY-8-6	153154
10 mm	6 mm	QSY-10-6	130611
	8 mm	QSY-10-8	153155
12 mm	8 mm	QSY-12-8	130612
	10 mm	QSY-12-10	153156
16 mm	12 mm	QSY-16-12	190708



Push-in connector QSY-...H, Y-shape			
Connection 1	Connection 2	Type	Part No.
Push-in sleeve/push-in connector			
4 mm	4 mm	QSY-4H	130628
6 mm	6 mm	QSY-6H-B	133145
8 mm	8 mm	QSY-8H-B	133146
10 mm	10 mm	QSY-10H-B	133148
12 mm	12 mm	QSY-12H-B	133150
Push-in sleeve/push-in connector, reducing			
6 mm	4 mm	QSY-6H-4	130633
8 mm	6 mm	QSY-8H-6-B	133147
10 mm	8 mm	QSY-10H-8-B	133149
12 mm	10 mm	QSY-12H-10-B	133151



Push-in fitting QSYL, Y-shape, 360° rotatable			
Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSYL-1/8-4	153172
	6 mm	QSYL-1/8-6	153173
	8 mm	QSYL-1/8-8	153175
R1/4	6 mm	QSYL-1/4-6	153174
	8 mm	QSYL-1/4-8	153176
	10 mm	QSYL-1/4-10	153178
R3/8	8 mm	QSYL-3/8-8	153177
	10 mm	QSYL-3/8-10	153179
	12 mm	QSYL-3/8-12	153180
R1/2	12 mm	QSYL-1/2-12	153181
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSYL-G1/8-4	186189
	6 mm	QSYL-G1/8-6	186190
	8 mm	QSYL-G1/8-8	186192
G1/4	6 mm	QSYL-G1/4-6	186191
	8 mm	QSYL-G1/4-8	186193
	10 mm	QSYL-G1/4-10	186195
G3/8	8 mm	QSYL-G3/8-8	186194
	10 mm	QSYL-G3/8-10	186196
	12 mm	QSYL-G3/8-12	186197
G1/2	12 mm	QSYL-G1/2-12	186198



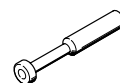
Push-in fitting QSYLV, Y-shape, 360° rotatable			
Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex/push-in connector)			
R1/8	6 mm	QSYLV-1/8-6	153192
R1/4	8 mm	QSYLV-1/4-8	153193
R3/8	10 mm	QSYLV-3/8-10	153194
R1/2	12 mm	QSYLV-1/2-12	153195
G thread (male thread with external hex/push-in connector)			
G1/8	6 mm	QSYLV-G1/8-6	186209
G1/4	8 mm	QSYLV-G1/4-8	186210
G3/8	10 mm	QSYLV-G3/8-10	186211
G1/2	12 mm	QSYLV-G1/2-12	186212



Push-in bulkhead connector QSS			
Connection 1	Connection 2	Type	Part No.
4 mm	4 mm	QSS-4	153157
6 mm	6 mm	QSS-6	153158
8 mm	8 mm	QSS-8	153159
10 mm	10 mm	QSS-10	153160
12 mm	12 mm	QSS-12	153161
With fixed collar			
8 mm	8 mm	QSS-8-F	130642
10 mm	10 mm	QSS-10-F	130643
12 mm	12 mm	QSS-12-F 10	130644



Blanking plug QSC-...H			
Connection 1	Connection 2	Type	Part No.
Push-in sleeve			
4 mm	None	QSC-4H	153267
6 mm	None	QSC-6H	153268
8 mm	None	QSC-8H	153269
10 mm	None	QSC-10H	153270
12 mm	None	QSC-12H	153271
16 mm	None	QSC-16H	153272





QSM-G1/8-6-I



QSMF-M3-3



QSMLM5-6



QSMT-M5-6



QSMY-3



QSMS

- Simple and reliable connection and release
- Wide range of variants: standard, mini size, metal, stainless steel, flame-retardant with R, G, NPT and metric thread
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

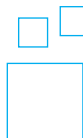
Type codes – Basic design

QS, mini series				
QSM	Straight			
QSMF	Straight			
QSML	L-shape			
QSMT	T-shape			
QSMY	Y-shape			
QSMS	Push-in bulkhead connector			
Pneumatic connection 1				
M thread				
M3	M3			
M5	M5			
M7	M7			
G thread				
G1/8	G1/8			
R thread				
1/8	R1/8			
Push-in connector				
4	4 mm			
6	6 mm			
8	8 mm			
10	10 mm			
12	12 mm			
Pneumatic connection 2				
Push-in connector				
3	3 mm			
4	4 mm			
6	6 mm			
Packaging unit				
	10 pieces			
100	100 pieces			

Variants

Type	Design	Version	Connection								
			M thread			R thread	G thread	For tubing O.D.			
			M3	M5	M7	R1⁄8	G1⁄8	2	3	4	6
QSM, mini											
QSM	Straight	Push-in fitting	■	■	■	■	■	■	■	■	■
		Push-in connector	–	–	–	–	–	■	■	■	■
QSMF		Push-in fitting	■	■	–	–	–	–	■	■	–
QSMS		Push-in bulkhead connector	–	–	–	–	–	–	■	■	■
QSML	L-shape	Push-in fitting	■	■	–	■	■	■	■	■	■
		Push-in connector	–	–	–	–	–	–	■	■	■
QSMT	T-shape	Push-in fitting	■	■	–	■	■	■	■	■	■
		Push-in connector	–	–	–	–	–	–	■	■	■
QSMX	X-shape	Push-in connector	–	–	–	–	–	–	■	■	■
QSMY	Y-shape	Push-in connector	–	–	–	–	–	■	■	■	■
QSM-B, mini											
QSM-B	Straight	Push-in fitting	■	■	■	■	–	–	■	■	■
QSML-B	L-shape	Push-in fitting	■	■	■	■	–	–	■	■	■
QSMT-B	T-shape	Push-in fitting	■	■	–	■	–	–	■	■	■

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

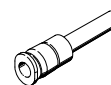
Push-in fitting QSM, straight design

Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M3	2 mm	QSM-M3-2	133027
	3 mm	QSM-M3-3	153301
	4 mm	QSM-M3-4	153303
M5	2 mm	QSM-M5-2	133028
	3 mm	QSM-M5-3	153302
	4 mm	QSM-M5-4	153304
M6	6 mm	QSM-M5-6	153306
	6 mm	QSM-M6-6	132600
R thread (male thread with external hex/push-in connector)			
R $\frac{1}{8}$	4 mm	QSM-1/8-4	153305
	6 mm	QSM-1/8-6	153307
	6 mm	QSM-1/8-6-100	130756
G thread (male thread with external hex/push-in connector)			
G $\frac{1}{8}$	4 mm	QSM-G1/8-4	186264
	6 mm	QSM-G1/8-6	186265



Push-in connector QSM-...H

Connection 1	Connection 2	Type	Part No.
Push-in sleeve/push-in connector			
3 mm	2 mm	QSM-3H-2	133035
4 mm	3 mm	QSM-4H-3	153328
6 mm	4 mm	QSM-6H-4	153329



Push-in connector QSM-...-I, straight design

Connection 1	Connection 2	Type	Part No.
M thread (male thread with internal hex)/push-in connector			
M3	2 mm	QSM-M3-2-I	133026
	3 mm	QSM-M3-3-I	153312
	4 mm	QSM-M3-4-I	153314
M5	3 mm	QSM-M5-3-I	153313
	4 mm	QSM-M5-4-I	153315
	6 mm	QSM-M5-6-I	153317
M7	4 mm	QSM-M7-4-I	153319
	6 mm	QSM-M7-6-I	153321
R thread (male thread with internal hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QSM-1/8-4-I	153316
	6 mm	QSM-1/8-6-I	153318
G thread (male thread with internal hex)/push-in connector			
G $\frac{1}{8}$	4 mm	QSM-G1/8-4-I	186266
	6 mm	QSM-G1/8-6-I	186267



Push-in connector QSM, straight design

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
3 mm	3 mm	QSM-3	153323
4 mm	4 mm	QSM-4	153324
6 mm	6 mm	QSM-6	153325
6 mm	6 mm	QSM-6-100	130759
Push-in connector/push-in connector, reducing			
3 mm	2 mm	QSM-3-2	133029
4 mm	3 mm	QSM-4-3	153326
6 mm	4 mm	QSM-6-4	153327



Push-in fittings QSM – Mini series

FESTO

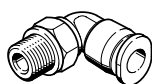
Ordering data – Basic design

Push-in fitting QSM-...-I-R, straight design,
round release ring

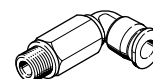
Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M3	3 mm	QSM-M3-3-I-R	133001
	4 mm	QSM-M3-4-I-R	133002
M5	4 mm	QSM-M5-4-I-R	133004
	6 mm	QSM-M5-6-I-R	133005
M7	6 mm	QSM-M7-6-I-R	133007

Push-in fitting QSMF, straight design,
round release ring

Connection 1	Connection 2	Type	Part No.
M thread (female thread with external hex)/push-in connector			
M3	3 mm	QSMF-M3-3	153308
	4 mm	QSMF-M3-4	153310
M5	3 mm	QSMF-M5-3	153309
	4 mm	QSMF-M5-4	153311

Push-in fitting QSML, L-shape,
360° rotatable

Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M3	2 mm	QSML-M3-2	133030
	3 mm	QSML-M3-3	153330
	4 mm	QSML-M3-4	153332
M5	2 mm	QSML-M5-2	133031
	3 mm	QSML-M5-3	153331
	4 mm	QSML-M5-4	153333
	4 mm	QSML-M5-4-100	130771
	6 mm	QSML-M5-6	153335
	6 mm	QSML-M5-6-100	130772
M7	4 mm	QSML-M7-4	186352
	6 mm	QSML-M7-6	186353
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSML-1/8-4	153334
	6 mm	QSML-1/8-6	153336
	6 mm	QSML-1/8-6-100	130765
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSML-G1/8-4	186268
	6 mm	QSML-G1/8-6	186269

Push-in fitting QSMLL, L-shape, long design,
360° rotatable

Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M3	2 mm	QSMLL-M3-2	133032
	3 mm	QSMLL-M3-3	153337
	4 mm	QSMLL-M3-4	153338
M5	2 mm	QSMLL-M5-2	133033
	3 mm	QSMLL-M5-3	130838
	4 mm	QSMLL-M5-4	153339
	6 mm	QSMLL-M5-6	153341
M7	4 mm	QSMLL-M7-4	186354
	6 mm	QSMLL-M7-6	186355
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSMLL-1/8-4	153340
	6 mm	QSMLL-1/8-6	153342
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSMLL-G1/8-4	186270
	6 mm	QSMLL-G1/8-6	186271

Push-in fitting QSMLV-...-I, L-shape,
360° rotatable

Connection 1	Connection 2	Type	Part No.
M thread (male thread with internal hex)/push-in connector			
M5	3 mm	QSMLV-M5-3-I	130830
	4 mm	QSMLV-M5-4-I	130831
M7	4 mm	QSMLV-M7-4-I	130832
	6 mm	QSMLV-M7-6-I	130833

Push-in fitting QSMLLV-...-I, L-shape, long design,
360° rotatable

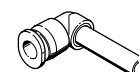
Connection 1	Connection 2	Type	Part No.
M thread (male thread with internal hex)/push-in connector			
M5	3 mm	QSMLLV-M5-3-I	130834
	4 mm	QSMLLV-M5-4-I	130835
M7	4 mm	QSMLLV-M7-4-I	130836
	6 mm	QSMLLV-M7-6-I	130837

Push-in connector QSML, L-shape



Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
3 mm	3 mm	QSML-3	153343
4 mm	4 mm	QSML-4	153344
6 mm	6 mm	QSML-6	153345

Push-in connector QSML-...H, L-shape



Connection 1	Connection 2	Type	Part No.
Push-in sleeve/ push-in connector			
3 mm	3 mm	QSML-3H	153346
4 mm	4 mm	QSML-4H	153347
6 mm	6 mm	QSML-6H	153348
Push-in sleeve/ push-in connector, reducing			
4 mm	3 mm	QSML-4H-3	153349
6 mm	4 mm	QSML-6H-4	153350

Ordering data – Basic design
**Push-in fitting QSMT, T-shape,
360° rotatable**

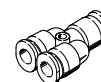

Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M3	3 mm	QSMT-M3-3	153351
	4 mm	QSMT-M3-4	153353
M5	3 mm	QSMT-M5-3	153352
	4 mm	QSMT-M5-4	153354
	6 mm	QSMT-M5-6	153356
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSMT-1/8-4	153355
	6 mm	QSMT-1/8-6	153357
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSMT-G1/8-4	186272
	6 mm	QSMT-G1/8-6	186273

**Push-in fitting QSMTL, T-shape,
360° rotatable**

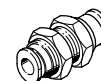

Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex/push-in connector)			
M3	3 mm	QSMTL-M3-3	153358
	4 mm	QSMTL-M3-4	153360
M5	3 mm	QSMTL-M5-3	153359
	4 mm	QSMTL-M5-4	153361
	6 mm	QSMTL-M5-6	153363
R thread (male thread with external hex/push-in connector)			
R1/8	4 mm	QSMTL-1/8-4	153362
	6 mm	QSMTL-1/8-6	153364
G thread (male thread with external hex/push-in connector)			
G1/8	4 mm	QSMTL-G1/8-4	186274
	6 mm	QSMTL-G1/8-6	186275

Push-in connector QSMT, T-shape


Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
2 mm	2 mm	QSMT-2	133034
3 mm	3 mm	QSMT-3	153365
4 mm	4 mm	QSMT-4	153366
6 mm	6 mm	QSMT-6	153367
6 mm	6 mm	QSMT-6-100	130783
Push-in connector/push-in connector, reducing			
4 mm	3 mm	QSMT-4-3	153368
6 mm	4 mm	QSMT-6-4	153369

Push-in connector QSMY, Y-shape


Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
2 mm	2 mm	QSMY-2	133037
3 mm	3 mm	QSMY-3	153370
4 mm	4 mm	QSMY-4	153371
6 mm	6 mm	QSMY-6	153372
Push-in connector/push-in connector, reducing			
4 mm	3 mm	QSMY-4-3	153373
6 mm	4 mm	QSMY-6-4	153374

Push-in bulkhead connector QSMS


Connection 1	Connection 2	Type	Part No.
3 mm	3 mm	QSMS-3	153375
4 mm	4 mm	QSMS-4	153376
6 mm	6 mm	QSMS-6	153377



- Simple and reliable connection and release
- Wide range of variants: standard, mini size, metal, stainless steel, flame-retardant with R, G, NPT and metric thread
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

Type codes – Basic design

Design QS-B, core functionality					
QS-B	Straight, male thread with external hex				
QS-B-...-I	Straight, male thread with internal hex				
QSL-B	L-shape, male thread with external hex				
QSL-B	L-shape, long design, male thread with external hex				
QST-B	T-shape, male thread with external hex				
QSTL-B	T-shape, male thread with external hex, additional push-in connector, in-line				
QSY-B	Y-shape				
Pneumatic connection 1					
R thread					
1/8	R1/8				
1/4	R1/4				
3/8	R3/8				
1/2	R1/2				
Push-in connector					
4	4 mm				
6	6 mm				
8	8 mm				
10	10 mm				
12	12 mm				
16	16 mm				
Pneumatic connection 2					
Push-in connector					
4	4 mm				
6	6 mm				
8	8 mm				
10	10 mm				
12	12 mm				
Packaging unit					
10	10 pieces				
20	20 pieces				

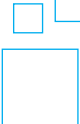
Push-in fitting QSL-B with tubing PEN



Variants

Type	Design	Version	Connection													
			M thread			R thread				For tubing O.D.						
			M3	M5	M7	R1/8	R1/4	R3/8	R1/2	3	4	6	8	10	12	16
QS-B, core functionality																
QS-B	Straight	Push-in fitting	–	–	–	■	■	■	■	–	■	■	■	■	■	■
		Push-in connector	–	–	–	–	–	–	–	–	■	■	■	■	■	■
QSL-B	L-shape	Push-in fitting	–	–	–	■	■	■	■	–	■	■	■	■	■	■
		Push-in connector	–	–	–	–	–	–	–	–	■	■	■	■	■	■
QST-B	T-shape	Push-in fitting	–	–	–	■	■	■	■	–	■	■	■	■	■	■
		Push-in connector	–	–	–	–	–	–	–	–	■	■	■	■	■	■
QSY-B	Y-shape	Push-in fitting	–	■	–	■	■	■	■	–	■	■	■	■	■	–
		Push-in connector	–	–	–	–	–	–	–	–	■	■	■	■	■	■
QSM-B, core functionality, mini																
QSM-B	Straight	Push-in fitting	■	■	■	■	–	–	–	■	■	■	–	–	–	–
QSM-L-B	L-shape	Push-in fitting	■	■	■	■	–	–	–	■	■	■	–	–	–	–
QSM-T-B	T-shape	Push-in fitting	■	■	–	■	–	–	–	■	■	■	–	–	–	–

Ordering data – Variants



Configurable product

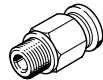
This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

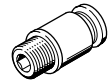
Enter the type or configuration part number in the search field.

Ordering data – Basic design

Push-in fitting QS-B, straight			
Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QS-B-1/8-4-20	130914
	6 mm	QS-B-1/8-6-20	130915
	8 mm	QS-B-1/8-8-20	130916
	10 mm	QS-B-1/8-10-20	132120
R $\frac{1}{4}$	4 mm	QS-B-1/4-4-20	130917
	6 mm	QS-B-1/4-6-20	130918
	8 mm	QS-B-1/4-8-20	130919
	10 mm	QS-B-1/4-10-20	132121
R $\frac{3}{8}$	12 mm	QS-B-1/4-12-20	132122
	6 mm	QS-B-3/8-6-10	130920
	8 mm	QS-B-3/8-8-10	130921
	10 mm	QS-B-3/8-10-10	130922
R $\frac{1}{2}$	12 mm	QS-B-3/8-12-10	132123
	16 mm	QS-B-3/8-16-10	132124
	10 mm	QS-B-1/2-10-10	130924
	12 mm	QS-B-1/2-12-10	130925
	16 mm	QS-B-1/2-16-10	132125



Push-in fitting QS-B-...-I, straight			
Connection 1	Connection 2	Type	Part No.
R thread (male thread with internal hex)/push-in connector			
R $\frac{1}{8}$	4 mm	QS-B-1/8-4-I-20	130990
	6 mm	QS-B-1/8-6-I-20	130991
	8 mm	QS-B-1/8-8-I-20	130992
	10 mm	QS-B-1/8-10-I-20	132151
R $\frac{1}{4}$	6 mm	QS-B-1/4-6-I-20	130994
	8 mm	QS-B-1/4-8-I-20	130995
	10 mm	QS-B-1/4-10-I-20	132152
	12 mm	QS-B-1/4-12-I-20	132153
R $\frac{3}{8}$	8 mm	QS-B-3/8-8-I-10	130997
	10 mm	QS-B-3/8-10-I-10	130998
	12 mm	QS-B-3/8-12-I-10	132154
R $\frac{1}{2}$	10 mm	QS-B-1/2-10-I-10	132000
	12 mm	QS-B-1/2-12-I-10	132001



Push-in fittings QS-B – Core functionality

FESTO

Ordering data – Basic design

Push-in connector QS-B, straight			
Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QS-B-4-20	130964
6 mm	6 mm	QS-B-6-20	130965
8 mm	8 mm	QS-B-8-20	130966
10 mm	10 mm	QS-B-10-10	130967
12 mm	12 mm	QS-B-12-10	130968
16 mm	16 mm	QS-B-16-10	132144
Push-in connector/push-in connector, reducing			
6 mm	4 mm	QS-B-6-4-20	130969
8 mm	4 mm	QS-B-8-4-20	132145
	6 mm	QS-B-8-6-20	130970
10 mm	6 mm	QS-B-10-6-20	132146
	8 mm	QS-B-10-8-10	130971
12 mm	8 mm	QS-B-12-8-10	132147
	10 mm	QS-B-12-10-10	130972



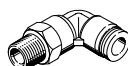
Push-in fitting QSLL-B, L-shape, long design, rotatable 360°

Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QSLL-B-1/8-4-20	132002
	6 mm	QSLL-B-1/8-6-20	132003
	8 mm	QSLL-B-1/8-8-20	132004
R1/4	4 mm	QSLL-B-1/4-4-20	132155
	6 mm	QSLL-B-1/4-6-20	132006
	8 mm	QSLL-B-1/4-8-20	132007
R3/8	10 mm	QSLL-B-1/4-10-20	132156
	6 mm	QSLL-B-3/8-6-10	132008
	8 mm	QSLL-B-3/8-8-10	132009
	10 mm	QSLL-B-3/8-10-10	132010
R1/2	12 mm	QSLL-B-3/8-12-10	132157
	10 mm	QSLL-B-1/2-10-10	132012
	12 mm	QSLL-B-1/2-12-10	132013



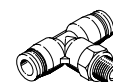
Push-in fitting QSL-B, L-shape, rotatable 360°

Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QSL-B-1/8-4-20	130926
	6 mm	QSL-B-1/8-6-20	130927
	8 mm	QSL-B-1/8-8-20	130928
	10 mm	QSL-B-1/8-10-20	132126
R1/4	4 mm	QSL-B-1/4-4-20	130929
	6 mm	QSL-B-1/4-6-20	130930
	8 mm	QSL-B-1/4-8-20	130931
	10 mm	QSL-B-1/4-10-20	132127
R3/8	12 mm	QSL-B-1/4-12-20	132128
	6 mm	QSL-B-3/8-6-10	130932
	8 mm	QSL-B-3/8-8-10	130933
	10 mm	QSL-B-3/8-10-10	130934
R1/2	12 mm	QSL-B-3/8-12-10	132129
	16 mm	QSL-B-3/8-16-10	132130
	10 mm	QSL-B-1/2-10-10	130936
	12 mm	QSL-B-1/2-12-10	130937
	16 mm	QSL-B-1/2-16-10	132131



Push-in fitting QST-B, T-shape, rotatable 360°

Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QST-B-1/8-4-20	130938
	6 mm	QST-B-1/8-6-20	130939
	8 mm	QST-B-1/8-8-20	130940
	10 mm	QST-B-1/8-10-20	132132
R1/4	4 mm	QST-B-1/4-4-20	130941
	6 mm	QST-B-1/4-6-20	130942
	8 mm	QST-B-1/4-8-20	130943
	10 mm	QST-B-1/4-10-20	132133
R3/8	12 mm	QST-B-1/4-12-20	132134
	6 mm	QST-B-3/8-6-10	130944
	8 mm	QST-B-3/8-8-10	130945
	10 mm	QST-B-3/8-10-10	130946
R1/2	12 mm	QST-B-3/8-12-10	132135
	16 mm	QST-B-3/8-16-10	132136
	10 mm	QST-B-1/2-10-10	130948
	12 mm	QST-B-1/2-12-10	130949
	16 mm	QST-B-1/2-16-10	132137



Push-in connector QSL-B, L-shape

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QSL-B-4-20	130950
6 mm	6 mm	QSL-B-6-20	130951
8 mm	8 mm	QSL-B-8-20	130952
10 mm	10 mm	QSL-B-10-10	130953
12 mm	12 mm	QSL-B-12-10	130954
16 mm	16 mm	QSL-B-16-10	132138



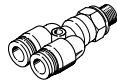
Push-in fitting QSTL-B, T-shape, rotatable 360°, additional push-in connector, in-line

Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QSTL-B-1/8-4-20	130978
	6 mm	QSTL-B-1/8-6-20	130979
	8 mm	QSTL-B-1/8-8-20	130980
R1/4	4 mm	QSTL-B-1/4-4-20	130981
	6 mm	QSTL-B-1/4-6-20	130982
	8 mm	QSTL-B-1/4-8-20	130983
R3/8	10 mm	QSTL-B-1/4-10-20	130984
	6 mm	QSTL-B-3/8-6-10	130985
	8 mm	QSTL-B-3/8-8-10	130986
	10 mm	QSTL-B-3/8-10-10	132149
R1/2	12 mm	QSTL-B-3/8-12-10	132149
	10 mm	QSTL-B-1/2-10-10	130988
	12 mm	QSTL-B-1/2-12-10	130989
	16 mm	QSTL-B-1/2-16-10	132150



Ordering data – Basic design

Push-in fitting QSY-B, Y-shape, rotatable 360°



Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector			
R1/8	4 mm	QSY-B-1/8-4-20	132014
	6 mm	QSY-B-1/8-6-20	132015
	8 mm	QSY-B-1/8-8-20	132016
R1/4	4 mm	QSY-B-1/4-4-20	132017
	6 mm	QSY-B-1/4-6-20	132018
	8 mm	QSY-B-1/4-8-20	132019
	10 mm	QSY-B-1/4-10-20	132160
R3/8	6 mm	QSY-B-3/8-6-10	132020
	8 mm	QSY-B-3/8-8-10	132021
	10 mm	QSY-B-3/8-10-10	132022
	12 mm	QSY-B-3/8-12-10	132161
R1/2	10 mm	QSY-B-1/2-10-10	132024
	12 mm	QSY-B-1/2-12-10	132025

Push-in connector QSY-B, Y-shape



Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	QSY-B-4-20	130955
6 mm	6 mm	QSY-B-6-20	130956
8 mm	8 mm	QSY-B-8-20	130957
10 mm	10 mm	QSY-B-10-10	130958
12 mm	12 mm	QSY-B-12-10	130959
16 mm	16 mm	QSY-B-16-10	132139
Push-in connector/push-in connector, 2 reducing outlets			
6 mm	4 mm	QSY-B-6-4-20	130960
8 mm	4 mm	QSY-B-8-4-20	132140
	6 mm	QSY-B-8-6-20	130961
10 mm	6 mm	QSY-B-10-6-10	132141
	8 mm	QSY-B-10-8-10	130962
12 mm	8 mm	QSY-B-12-8-10	132142
	10 mm	QSY-B-12-10-10	130963
16 mm	12 mm	QSY-B-16-12-10	132143

Push-in bulkhead connector QSSK

FESTO



- Temperature range up to 80 °C,
pressure range up to 6 bar

Type codes – Basic design

Design				
QSSK	Straight design, push-in bulkhead connector			
Pneumatic connection 1				
Push-in connector				
4	4 mm			
6	6 mm			
8	8 mm			
10	10 mm			
12	12 mm			
Pneumatic connection 2				
Push-in connector				
4	4 mm			
6	6 mm			
8	8 mm			
10	10 mm			
12	12 mm			

Variants

Type	Design	Version	Connection														
			M thread		R thread				G thread				For tubing O.D.				
			M5	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	4	6	8	10	12	
Self-sealing/rotary push-in fittings QS																	
QSK	Straight	Self-sealing push-in fitting	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		Self-sealing push-in connector	–	–	–	–	–	–	–	–	–	–	■	■	■	■	
QSSK		Push-in bulkhead connector	–	–	–	–	–	–	–	–	–	–	■	■	■	■	
QSR		Rotary push-in fitting	–	■	■	■	■	■	■	■	■	■	■	■	■	■	
QSKL	L-shape	Self-sealing push-in L-fitting	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
QSRL		Rotary push-in L-fitting	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

Ordering data – Variants

  		Configurable product	This product and all its variants can be ordered using the configurator.	The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...	Enter the type or configuration part number in the search field.
---	--	----------------------	--	--	--

Ordering data – Basic design

Push-in bulkhead connector QSSK, straight design			
Connection 1	Connection 2	Type	Part No.
4 mm	4 mm	QSSK-4	130637
6 mm	6 mm	QSSK-6	130638
8 mm	8 mm	QSSK-8	130639
10 mm	10 mm	QSSK-10	130640
12 mm	12 mm	QSSK-12	130641



NPQM-D-G38-Q12



NPQM-D-G14F-Q6



NPQM-D-Q6



NPQM-D-S8



NPQM-L-M5-Q6



NPQM-LFK



NPQM-T-Q6-S6



NPQM-Y-Q8

- Simple and reliable connection and release
- Attractively priced metal push-in fitting for pneumatic applications with a temperature range up to 70 °C and a pressure range up to 16 bar

Type codes – Basic design

Design							
NPQM-D	Straight design						
NPQM-DK	Straight design						
NPQM-H	Straight design, push-in bulkhead connector						
NPQM-L	L-shape						
NPQM-LK	L-shape						
NPQM-LH	L-shape						
NPQM-LFK	L-shape, multiple distributor						
NPQM-T	T-shape						
NPQM-Y	Y-shape						
Pneumatic connection 1							
M thread							
M5	M5						
M7	M7						
G thread							
G18	G1/8						
G14	G1/4						
G38	G3/8						
G12	G1/2						
Push-in connector		Push-in sleeve					
Q4	4 mm	S4	4 mm				
Q6	6 mm	S6	6 mm				
Q8	8 mm	S8	8 mm				
Q10	10 mm	S10	10 mm				
Q12	12 mm	S12	12 mm				
Q14	14 mm	S14	14 mm				
Pneumatic connection 2							
Push-in connector		Push-in sleeve					
Q4	4 mm	S4	4 mm				
Q6	6 mm	S6	6 mm				
Q8	8 mm	S8	8 mm				
Q10	10 mm	S10	10 mm				
Q12	12 mm	S12	12 mm				
Q14	14 mm	S14	14 mm				
Packaging unit							
P10	1 piece						
	10 pieces						

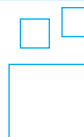
Push-in fittings NPQM

FESTO

Variants

Type	Design	Version	Connection												
			M thread		G thread				For tubing O.D.						
			M5	M7	G1/8	G1/4	G3/8	G1/2	3	4	6	8	10	12	14
NPQM-D, NPQM-DK	Straight	Push-in fitting	■	■	■	■	■	■		■	■	■	■	■	■
NPQM-D		Push-in connector	–	–	–	–	–	–		■	■	■	■	■	■
NPQM-D		Push-in sleeve	–	–	–	–	–	–		■	■	■	■	■	■
NPQM-H		Push-in bulkhead connector	–	–	–	–	–	–		■	■	■	■	■	–
NPQM-L	L-shape	Push-in fitting	■	–	■	■	■	■	■	■	■	■	■	■	■
NPQM-LFK		Multiple distributor	–	–	■	■	–	–		–	–	–	–	–	–
NPQM-L		Push-in connector	–	–	–	–	–	–		■	■	■	■	■	■
NPQM-T	T-shape	Push-in fitting	–	–	■	■	■	■		■	■	■	■	■	–
		Push-in connector	–	–	–	–	–	–		■	■	■	■	■	■
NPQM-Y	Y-shape	Push-in connector	–	–	–	–	–	–		■	■	■	■	■	■

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

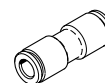
Push-in fitting NPQM-D, straight design			
Connection 1	Connection 2	Type	Part No.
G thread (male thread with external/internal hex)/push-in connector			
G1/8	4 mm	NPQM-D-G18-Q4-P10	558661
	6 mm	NPQM-D-G18-Q6-P10	558662
	8 mm	NPQM-D-G18-Q8-P10	558663
G1/4	6 mm	NPQM-D-G14-Q6-P10	558664
	8 mm	NPQM-D-G14-Q8-P10	558665
	10 mm	NPQM-D-G14-Q10-P10	558666
	12 mm	NPQM-D-G14-Q12-P10	558667
G3/8	8 mm	NPQM-D-G38-Q8-P10	558668
	10 mm	NPQM-D-G38-Q10-P10	558669
	12 mm	NPQM-D-G38-Q12-P10	558670
	14 mm	NPQM-D-G38-Q14-P10	570450
G1/2	10 mm	NPQM-D-G12-Q10-P10	558671
	12 mm	NPQM-D-G12-Q12-P10	558672
	14 mm	NPQM-D-G12-Q14-P10	570451



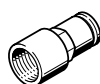
Push-in fitting NPQM-D, straight design			
Connection 1	Connection 2	Type	Part No.
M thread (male thread with internal hex)/push-in connector			
M5	4 mm	NPQM-DK-M5-Q4-P10	558657
	6 mm	NPQM-DK-M5-Q6-P10	558658
M7	4 mm	NPQM-DK-M7-Q4-P10	558659
	6 mm	NPQM-DK-M7-Q6-P10	558660



Push-in connector NPQM-D, straight design			
Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	NPQM-D-Q4-E-P10	558760
6 mm	6 mm	NPQM-D-Q6-E-P10	558761
8 mm	8 mm	NPQM-D-Q8-E-P10	558762
10 mm	10 mm	NPQM-D-Q10-E-P10	558763
12 mm	12 mm	NPQM-D-Q12-E-P10	558764
14 mm	14 mm	NPQM-D-Q14-E-P10	570452

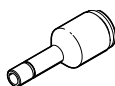


Push-in fitting NPQM-D, straight design			
Connection 1	Connection 2	Type	Part No.
G thread (female thread with external hex)/push-in connector			
G1/8	4 mm	NPQM-D-G18F-Q4-P10	558674
	6 mm	NPQM-D-G18F-Q6-P10	558675
	8 mm	NPQM-D-G18F-Q8-P10	558676
G1/4	6 mm	NPQM-D-G14F-Q6-P10	558678
	8 mm	NPQM-D-G14F-Q8-P10	558679
	10 mm	NPQM-D-G14F-Q10-P10	558680

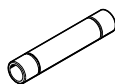


Ordering data – Basic design

Push-in connector NPQM-D, straight design			
Connection 1	Connection 2	Type	Part No.
Push-in sleeve/push-in connector			
4 mm	6 mm	NPQM-D-Q4-S6-P10	558765
	8 mm	NPQM-D-Q4-S8-P10	558766
6 mm	4 mm	NPQM-D-Q6-S4-P10	558767
	8 mm	NPQM-D-Q6-S8-P10	558768
	10 mm	NPQM-D-Q6-S10-P10	558769
	12 mm	NPQM-D-Q6-S12-P10	558770
8 mm	14 mm	NPQM-D-Q6-S14-P10	570457
	6 mm	NPQM-D-Q8-S6-P10	558771
	10 mm	NPQM-D-Q8-S10-P10	558772
	12 mm	NPQM-D-Q8-S12-P10	558773
10 mm	14 mm	NPQM-D-Q8-S14-P10	570458
	12 mm	NPQM-D-Q10-S12-P10	558774
	14 mm	NPQM-D-Q10-S14-P10	570456
12 mm	14 mm	NPQM-D-Q12-S14-P10	570459



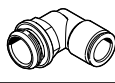
Push-in sleeve NPQM-D, straight design			
Connection 1	Connection 2	Type	Part No.
Push-in sleeve/push-in sleeve			
4 mm	4 mm	NPQM-D-S4-E-P10	558811
6 mm	6 mm	NPQM-D-S6-E-P10	558812
8 mm	8 mm	NPQM-D-S8-E-P10	558813
10 mm	10 mm	NPQM-D-S10-E-P10	558814
12 mm	12 mm	NPQM-D-S12-E-P10	558815
14 mm	14 mm	NPQM-D-S14-E-P10	570455



Push-in bulkhead connector NPQM-H, straight design			
Connection 1	Connection 2	Type	Part No.
4 mm	4 mm	NPQM-H-Q4-E-P10	558806
6 mm	6 mm	NPQM-H-Q6-E-P10	558807
8 mm	8 mm	NPQM-H-Q8-E-P10	558808
10 mm	10 mm	NPQM-H-Q10-E-P10	558809
12 mm	12 mm	NPQM-H-Q12-E-P10	558810



Push-in fitting NPQM-L, L-shape			
Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex)/push-in connector			
M5	4	NPQM-L-M5-Q4-P10	558704
M7	6	NPQM-L-M5-Q6-P10	558705
G thread (male thread with external hex)/push-in connector			
G1/8	4 mm	NPQM-L-G18-Q4-P10	558708
	6 mm	NPQM-L-G18-Q6-P10	558709
	8 mm	NPQM-L-G18-Q8-P10	558710
G1/4	6 mm	NPQM-L-G14-Q6-P10	558711
	8 mm	NPQM-L-G14-Q8-P10	558712
	10 mm	NPQM-L-G14-Q10-P10	558713
	12 mm	NPQM-L-G14-Q12-P10	558714
G3/8	8 mm	NPQM-L-G38-Q8-P10	558715
	10 mm	NPQM-L-G38-Q10-P10	558716
	12 mm	NPQM-L-G38-Q12-P10	558717
	14 mm	NPQM-L-G38-Q14-P10	570460
G1/2	10 mm	NPQM-L-G12-Q10-P10	558718
	12 mm	NPQM-L-G12-Q12-P10	558719
	14 mm	NPQM-L-G12-Q14-P10	570461



Push-in fitting NPQM-LK, L-shape			
Connection 1	Connection 2	Type	Part No.
M thread (male thread with internal hex)/push-in connector			
M5	3	NPQM-LK-M5-Q3-P10	558816
M7	4	NPQM-LK-M5-Q4-P10	558817
G thread (male thread with internal hex)/push-in connector			
G1/8	4 mm	NPQM-LK-G18-Q4-P10	558818
	6 mm	NPQM-LK-G18-Q6-P10	558819
	8 mm	NPQM-LK-G18-Q8-P10	558820
G1/4	6 mm	NPQM-LK-G14-Q6-P10	558821
	8 mm	NPQM-LK-G14-Q8-P10	558822
	10 mm	NPQM-LK-G14-Q10-P10	558823
G3/8	10 mm	NPQM-LK-G38-Q10-P10	558825



Push-in fitting NPQM-LH, L-shape			
Connection 1	Connection 2	Type	Part No.
M thread (male thread with external hex)/push-in connector			
M5	4	NPQM-LH-M5-Q4-P10	558827
M7	6	NPQM-LH-M5-Q6-P10	558828
G thread (male thread with external hex)/push-in connector			
G1/8	4 mm	NPQM-LH-G18-Q4-P10	558829
	6 mm	NPQM-LH-G18-Q6-P10	558830
	8 mm	NPQM-LH-G18-Q8-P10	558831
G1/4	6 mm	NPQM-LH-G14-Q6-P10	558832
	8 mm	NPQM-LH-G14-Q8-P10	558833
G3/8	8 mm	NPQM-LH-G38-Q8-P10	558834
	10 mm	NPQM-LH-G38-Q10-P10	558835
	12 mm	NPQM-LH-G38-Q12-P10	558836



Multiple distributor NPQM-LFK, L-shape			
Connection 1	Connection 2	Type	Part No.
G thread (male thread with internal hex)/push-in connector			
G1/8	4 mm	NPQM-LFK-G18-Q4-P10	558837
	6 mm	NPQM-LFK-G18-Q6-P10	558838
	8 mm	NPQM-LFK-G18-Q8-P10	558839
G1/4	6 mm	NPQM-LFK-G14-Q6-P10	558840
	8 mm	NPQM-LFK-G14-Q8-P10	558841



Push-in connector NPQM-L, L-shape			
Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	NPQM-L-Q4-E-P10	558776
6 mm	6 mm	NPQM-L-Q6-E-P10	558777
8 mm	8 mm	NPQM-L-Q8-E-P10	558778
10 mm	10 mm	NPQM-L-Q10-E-P10	558779
12 mm	12 mm	NPQM-L-Q12-E-P10	558780
14 mm	14 mm	NPQM-L-Q14-E-P10	570453



Push-in fittings NPQM

FESTO

Ordering data – Basic design

Push-in connector NPQM-L, L-shape

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in sleeve			
4 mm	4 mm	NPQM-L-Q4-S4-P10	558781
6 mm	6 mm	NPQM-L-Q6-S6-P10	558782
8 mm	8 mm	NPQM-L-Q8-S8-P10	558783
10 mm	10 mm	NPQM-L-Q10-S10-P10	558784



Push-in connector NPQM-T, T-shape

Connection 1	Connection 2	Type	Part No.
Push-in sleeve/push-in connector			
4 mm	4 mm	NPQM-T-Q4-S4-P10	558791
6 mm	6 mm	NPQM-T-Q6-S6-P10	558792
8 mm	8 mm	NPQM-T-Q8-S8-P10	558793
10 mm	10 mm	NPQM-T-Q10-S10-P10	558794



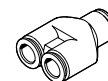
Push-in fitting NPQM-T, T-shape

Connection 1	Connection 2	Type	Part No.
G thread (male thread with external hex)/push-in connector			
G1/8	4 mm	NPQM-T-G18-Q4-P10	558736
	6 mm	NPQM-T-G18-Q6-P10	558737
	8 mm	NPQM-T-G18-Q8-P10	558738
G1/4	6 mm	NPQM-T-G14-Q6-P10	558739
	8 mm	NPQM-T-G14-Q8-P10	558740
	10 mm	NPQM-T-G14-Q10-P10	558741
G3/8	8 mm	NPQM-T-G38-Q8-P10	558743
	10 mm	NPQM-T-G38-Q10-P10	558744
	12 mm	NPQM-T-G38-Q12-P10	558745
G1/2	12 mm	NPQM-T-G12-Q12-P10	558747



Push-in connector NPQM-Y, Y-shape

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	NPQM-Y-Q4-E-P10	558798
6 mm	6 mm	NPQM-Y-Q6-E-P10	558799
8 mm	8 mm	NPQM-Y-Q8-E-P10	558800
10 mm	10 mm	NPQM-Y-Q10-E-P10	558801
12 mm	12 mm	NPQM-Y-Q12-E-P10	558802
Push-in connector/push-in connector, reducing			
6 mm	6 mm	NPQM-Y-Q6-Q4-P10	558803
8 mm	8 mm	NPQM-Y-Q8-Q6-P10	558804
10 mm	10 mm	NPQM-Y-Q10-Q8-P10	558805



Push-in connector NPQM-T, T-shape

Connection 1	Connection 2	Type	Part No.
Push-in connector/push-in connector			
4 mm	4 mm	NPQM-T-Q4-E-P10	558786
6 mm	6 mm	NPQM-T-Q6-E-P10	558787
8 mm	8 mm	NPQM-T-Q8-E-P10	558788
10 mm	10 mm	NPQM-T-Q10-E-P10	558789
12 mm	12 mm	NPQM-T-Q12-E-P10	558790
14 mm	14 mm	NPQM-T-Q14-E-P10	570454





- Nickel-plated brass
- Resistant to mechanical loads
- For service units, control cabinet construction or the easy installation of pneumatic controllers

Type codes – Basic design

Design	
NPFC-S	Sleeve, straight
NPFC-R	Reducing sleeve, straight
NPFC-E...	Extension, straight, length 1 to length 4
NPFC-D	Double nipple, male thread/male thread
NPFC-R	Reducing nipple
NPFC-L	Fitting, L-shape
NPFC-T	Fitting, T-shape
NPFC-Y	Fitting, Y-shape
NPFC-X	Fitting, X-shape

Pneumatic connection 1					
M thread		G thread		R thread	
M5	M5	G18	G $\frac{1}{8}$	R18	R $\frac{1}{8}$
M7	M7	G14	G $\frac{1}{4}$	R14	R $\frac{1}{4}$
		G38	G $\frac{3}{8}$	R38	R $\frac{3}{8}$
		G12	G $\frac{1}{2}$	R12	R $\frac{1}{2}$
		G34	G $\frac{3}{4}$	R34	R $\frac{3}{4}$
		G1	G1	R1	R1

Pneumatic connection 2					
M thread		G thread		R thread	
M5	M5	G18	G $\frac{1}{8}$	R18	R $\frac{1}{8}$
		G14	G $\frac{1}{4}$	R14	R $\frac{1}{4}$
		G38	G $\frac{3}{8}$	R38	R $\frac{3}{8}$
		G12	G $\frac{1}{2}$	R12	R $\frac{1}{2}$
		G34	G $\frac{3}{4}$	R34	R $\frac{3}{4}$
				R1	R1

Thread type	
F	Female thread
M	Male thread

Packaging unit	
	10 pieces

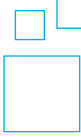
Threaded fittings NPFC

Variants

Type	Design	Version	Connection 1			Connection 2		
			M thread	G thread	R thread	M thread	G thread	R thread
Threaded fittings NPFC ¹⁾								
NPFC-S	Straight	Sleeve	■	■	–	–	–	–
NPFC-R		Reducing sleeve	–	■	–	–	■	–
NPFC-E...		Extension	–	■	–	–	■	–
NPFC-D		Double nipple	■	■	■	■	■	■
NPFC-R		Reducing nipple FM	■	■	–	–	■	–
		Reducing nipple MF	–	■	–	■	■	–
NPFC-L	L-shape	Elbow fitting F	■	■	–	–	–	–
		Elbow fitting MF	■	■	–	■	–	■
		Elbow fitting M	■	–	■	–	–	–
NPFC-T	T-shape	T-fitting F	–	■	–	–	–	–
		T-fitting FMF	■	■	–	■	–	■
		T-fitting FMM	–	■	–	–	–	■
		T-fitting M	–	–	■	–	–	–
		T-fitting MMF	–	–	■	–	–	■
		T-fitting MFF	■	–	■	■	■	–
NPFC-Y	Y-shape	Y-fitting F	–	■	–	–	–	–
		Y-fitting MFF	–	–	■	–	■	–
NPFC-X	X-shape	X-fitting F	–	■	–	–	–	–
		X-fitting MFFF	–	■	–	–	–	■

1) Sealing the cylindrical thread with thread sealing tape GWB-0.1 is recommended.

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at
www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Sleeve NPFC-S, inline			
Connection 1	Connection 2	Type	Part No.
Female thread/female thread			
M5	M5	NPFC-S-2M5-F	8030290
G1/8	G1/8	NPFC-S-2G18-F	8030291
G1/4	G1/4	NPFC-S-2G14-F	8030292
G3/8	G3/8	NPFC-S-2G38-F	8030293
G1/2	G1/2	NPFC-S-2G12-F	8030294
G3/4	G3/4	NPFC-S-2G34-F	8030295



Reducing sleeve NPFC-R, straight			
Connection 1	Connection 2	Type	Part No.
Female thread/female thread			
G1/8	G3/8	NPFC-R-G38-G18-F	8030296
G1/2	G3/4	NPFC-R-G34-G12-F	8030297



Extension NPFC-E..., straight			
Connection 1	Connection 2	Type	Part No.
Male thread/female thread, length 1			
G1/8	G1/8	NPFC-E1-2G18-FM	8030298
G1/4	G1/4	NPFC-E1-2G14-FM	8030299
G3/8	G3/8	NPFC-E1-2G38-FM	8030300
G1/2	G1/2	NPFC-E1-2G12-FM	8030301
Male thread/female thread, length 2			
G1/8	G1/8	NPFC-E2-2G18-FM	8030302
G1/4	G1/4	NPFC-E2-2G14-FM	8030303
Male thread/female thread, length 3			
G1/8	G1/8	NPFC-E3-2G18-FM	8030304
G1/4	G1/4	NPFC-E3-2G14-FM	8030305
Male thread/female thread, length 4			
G1/8	G1/8	NPFC-E4-2G18-FM	8030306



Ordering data – Basic design

Double nipple NPFC-D, straight



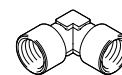
Connection 1	Connection 2	Type	Part No.
Male thread/male thread			
M5	M5	NPFC-D-2M5-M	8030267
M7	G $\frac{1}{8}$	NPFC-D-M7-G18-M	8030268
Male thread/male thread			
G $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-D-2G18-M	8030269
G $\frac{1}{8}$	G $\frac{1}{4}$	NPFC-D-G18-G14-M	8030270
G $\frac{1}{8}$	G $\frac{3}{8}$	NPFC-D-G18-G38-M	8030271
G $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-D-2G14-M	8030272
G $\frac{1}{4}$	G $\frac{3}{8}$	NPFC-D-G14-G38-M	8030273
G $\frac{1}{4}$	G $\frac{1}{2}$	NPFC-D-G14-G12-M	8030274
G $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-D-2G38-M	8030275
G $\frac{3}{8}$	G $\frac{1}{2}$	NPFC-D-G38-G12-M	8030276
G $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-D-2G12-M	8030277
Male thread/male thread			
R $\frac{1}{8}$	R $\frac{1}{8}$	NPFC-D-2R18-M	8030278
R $\frac{1}{8}$	R $\frac{1}{4}$	NPFC-D-R18-R14-M	8030279
R $\frac{1}{8}$	R $\frac{3}{8}$	NPFC-D-R18-R38-M	8030280
R $\frac{1}{4}$	R $\frac{1}{4}$	NPFC-D-2R14-M	8030281
R $\frac{1}{4}$	R $\frac{3}{8}$	NPFC-D-R14-R38-M	8030282
R $\frac{1}{4}$	R $\frac{1}{2}$	NPFC-D-R14-R12-M	8030283
R $\frac{3}{8}$	R $\frac{3}{8}$	NPFC-D-2R38-M	8030284
R $\frac{3}{8}$	R $\frac{1}{2}$	NPFC-D-R38-R12-M	8030285
R $\frac{1}{2}$	R $\frac{1}{2}$	NPFC-D-2R12-M	8030286
R $\frac{1}{2}$	R $\frac{3}{4}$	NPFC-D-R12-R34-M	8030287
R $\frac{3}{4}$	R $\frac{3}{4}$	NPFC-D-2R34-M	8030288
R1	R1	NPFC-D-2R1-M	8030289

Reducing nipple NPFC-R



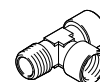
Connection 1	Connection 2	Type	Part No.
Female thread/male thread			
M5	G $\frac{1}{8}$	NPFC-R-G18-M5-FM	8030314
G $\frac{1}{8}$	G $\frac{1}{4}$	NPFC-R-G14-G18-FM	8030315
G $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-R-G38-G18-FM	8030316
G $\frac{1}{2}$	G $\frac{3}{8}$	NPFC-R-G38-G14-FM	8030317
G $\frac{3}{4}$	G $\frac{3}{8}$	NPFC-R-G12-G38-FM	8030318
Male thread/female thread			
G $\frac{1}{8}$	M5	NPFC-R-G18-M5-MF	8030307
G $\frac{1}{4}$	G $\frac{1}{8}$	NPFC-R-G14-G18-MF	8030308
G $\frac{3}{8}$	G $\frac{1}{8}$	NPFC-R-G38-G18-MF	8030309
G $\frac{3}{8}$	G $\frac{1}{4}$	NPFC-R-G38-G14-MF	8030310
G $\frac{1}{2}$	G $\frac{1}{4}$	NPFC-R-G12-G14-MF	8030311
G $\frac{1}{2}$	G $\frac{3}{8}$	NPFC-R-G12-G38-MF	8030312
G $\frac{3}{4}$	G $\frac{1}{2}$	NPFC-R-G34-G12-MF	8030313

Fitting NPFC-L, L-shape



Connection 1	Connection 2	Type	Part No.
Female thread/female thread			
M5	M5	NPFC-L-2M5-F	8030208
G $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-L-2G18-F	8030209
G $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-L-2G14-F	8030210
G $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-L-2G38-F	8030211
G $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-L-2G12-F	8030212
G $\frac{3}{4}$	G $\frac{3}{4}$	NPFC-L-2G34-F	8030213
G1	G1	NPFC-L-2G1-F	8030214
Male thread/female thread			
M5	M5	NPFC-L-2M5-MF	8030215
R $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-L-R18-G18-MF	8030216
R $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-L-R14-G14-MF	8030217
R $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-L-R38-G38-MF	8030218
R $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-L-R12-G12-MF	8030219
R $\frac{3}{4}$	G $\frac{3}{4}$	NPFC-L-R34-G34-MF	8030220
R1	G1	NPFC-L-R1-G1-MF	8030221
Male thread/male thread			
M5	M5	NPFC-L-2M5-M	8030222
R $\frac{1}{8}$	R $\frac{1}{8}$	NPFC-L-2R18-M	8030223
R $\frac{1}{4}$	R $\frac{1}{4}$	NPFC-L-2R14-M	8030224
R $\frac{3}{8}$	R $\frac{3}{8}$	NPFC-L-2R38-M	8030225
R $\frac{1}{2}$	R $\frac{1}{2}$	NPFC-L-2R12-M	8030226
R $\frac{3}{4}$	R $\frac{3}{4}$	NPFC-L-2R34-M	8030227

Fitting NPFC-T, T-shape



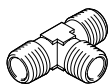
Connection 1	Connection 2	Type	Part No.
Female thread/female thread/female thread			
G $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-T-3G18-F	8030235
G $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-T-3G14-F	8030236
G $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-T-3G38-F	8030237
G $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-T-3G12-F	8030238
G $\frac{3}{4}$	G $\frac{3}{4}$	NPFC-T-3G34-F	8030239
G1	G1	NPFC-T-3G1-F	8030240
Female thread/male thread/female thread			
M5	M5	NPFC-T-3M5-FMF	8030245
G $\frac{1}{8}$	R $\frac{1}{8}$	NPFC-T-2G18-R18-FMF	8030246
G $\frac{1}{4}$	R $\frac{1}{4}$	NPFC-T-2G14-R14-FMF	8030247
G $\frac{3}{8}$	R $\frac{3}{8}$	NPFC-T-2G38-R38-FMF	8030248
G $\frac{1}{2}$	R $\frac{1}{2}$	NPFC-T-2G12-R12-FMF	8030249
G $\frac{3}{4}$	R $\frac{3}{4}$	NPFC-T-2G34-R34-FMF	8030250
G1	R1	NPFC-T-2G1-R1-FMF	8030251
Female thread/male thread/male thread			
G $\frac{1}{8}$	R $\frac{1}{8}$	NPFC-T-G18-2R18-FMM	8030255
G $\frac{1}{4}$	R $\frac{1}{4}$	NPFC-T-G14-2R14-FMM	8030256
G $\frac{3}{8}$	R $\frac{3}{8}$	NPFC-T-G38-2R38-FMM	8030257
G $\frac{1}{2}$	R $\frac{1}{2}$	NPFC-T-G12-2R12-FMM	8030258

Threaded fittings NPFC

FESTO

Ordering data – Basic design

Fitting NPFC-T, T-shape



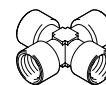
Connection 1	Connection 2	Type	Part No.
Male thread/male thread/male thread			
R $\frac{1}{4}$	R $\frac{1}{4}$	NPFC-T-3R14-M	8030252
R $\frac{3}{8}$	R $\frac{3}{8}$	NPFC-T-3R38-M	8030253
R $\frac{1}{2}$	R $\frac{1}{2}$	NPFC-T-3R12-M	8030254
Male thread/male thread/female thread			
R $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-T-2R18-G18-MMF	8030259
R $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-T-2R14-G14-MMF	8030260
R $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-T-2R12-G12-MMF	8030261
Male thread/female thread/female thread			
R $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-T-R18-2G18-MFF	8030241
R $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-T-R14-2G14-MFF	8030242
R $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-T-R38-2G38-MFF	8030243
R $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-T-R12-2G12-MFF	8030244

Fitting NPFC-Y, Y-shape



Connection 1	Connection 2	Type	Part No.
Female thread/female thread/female thread			
G $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-Y-3G14-F	8030228
G $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-Y-3G38-F	8030229
G $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-Y-3G12-F	8030230
Male thread/female thread/female thread			
R $\frac{1}{8}$	G $\frac{1}{8}$	NPFC-Y-R18-2G18-MFF	8030231
R $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-Y-R14-2G14-MFF	8030232
R $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-Y-R38-2G38-MFF	8030233
R $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-Y-R12-2G12-MFF	8030234

Fitting NPFC-X, X-shape



Connection 1	Connection 2	Type	Part No.
Female thread/female thread/female thread/female thread			
G $\frac{1}{4}$	G $\frac{1}{4}$	NPFC-X-4G14-F	8030262
G $\frac{3}{8}$	G $\frac{3}{8}$	NPFC-X-4G38-F	8030263
G $\frac{1}{2}$	G $\frac{1}{2}$	NPFC-X-4G12-F	8030264
Male thread/female thread/female thread/female thread			
G $\frac{1}{4}$	R $\frac{1}{4}$	NPFC-X-R14-3G14-MFFF	8030265
G $\frac{1}{2}$	R $\frac{1}{2}$	NPFC-X-R12-3G12-MFFF	8030266



- Easy to insert tubing
- Easy to release
- Up to 6 outlets
- Rotatable 360°

- Selected types in accordance with ATEX directive for potentially explosive atmospheres

→ www.festo.com/en/ex

Type codes – Basic design

QS, standard series QSLV2 L-shape, rotatable 360°, 2 outlets			
Pneumatic connection 1 R thread 1/8 R ¹ / ₈ 1/4 R ¹ / ₄			
Pneumatic connection 2 Push-in connector 4 4 mm 6 6 mm 8 8 mm 10 10 mm			

Variants

Type	Design	Version	Connection										For tubing O.D.				
			R thread				G thread										
			R ¹ / ₈	R ¹ / ₄	R ³ / ₈	R ¹ / ₂	G ¹ / ₈	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	4	6	8	10	12		
QSLV	L-shape	Multiple distributor, 2 outlets	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		Multiple distributor, 3 outlets	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		Multiple distributor, 4 outlets	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
		Multiple distributor, 6 outlets	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
QSQ		Multiple distributor, 4 outlets	■	■	–	–	■	■	–	–	■	■	–	–	–	–	–
QST3	T-shape	3 outlets	■	■	■	–	■	■	■	–	■	■	■	■	■	■	■

Ordering data – Variants

	Configurable product	This product and all its variants can be ordered using the configurator.	The configurator can be found on the DVD under Products or at → www.festo.com/catalogue/...	Enter the type or configuration part number in the search field.
--	-----------------------------	---	---	--

Ordering data – Basic design

Multiple distributor QSLV2, L-shape, 2 outlets, rotatable 360° ¹⁾							
Connection 1	Connection 2	Type	Part No.	Connection 1	Connection 2	Type	Part No.
R thread (male thread with external hex)/push-in connector							
R ¹ / ₈	4 mm	QSLV2-1/8-4	153211	R ¹ / ₄	6 mm	QSLV2-1/4-6	153213
	6 mm	QSLV2-1/8-6	153212		8 mm	QSLV2-1/4-8	153215
	8 mm	QSLV2-1/8-8	153214		10 mm	QSLV2-1/4-10	153217

1) Packaging unit: 1 piece

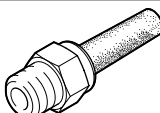
Silencers AMTE

FESTO



- Metal
- Short design
- Long design

Ordering data

Version	Type	Part No.	PU ¹⁾	Connection D1		Noise level
				M thread	G thread	[dB (A)]
Short design						
	AMTE-M-H-M5	1206621	20	M5	–	< 71
	AMTE-M-H-G18	1206622	20	–	G1⁄8	< 92
	AMTE-M-H-G14	1206623	20	–	G1⁄4	< 95
	AMTE-M-H-G38	1206624	20	–	G3⁄8	< 92
	AMTE-M-H-G12	1206625	20	–	G1⁄2	< 92
Long design						
	AMTE-M-LH-M3	1231120	20	M3	–	< 55
	AMTE-M-LH-M5	1205858	20	M5	–	< 72
	AMTE-M-LH-G18	1205860	20	–	G1⁄8	< 76
	AMTE-M-LH-G14	1205861	20	–	G1⁄4	< 83
	AMTE-M-LH-G38	1205862	10	–	G3⁄8	< 82
	AMTE-M-LH-G12	1205863	10	–	G1⁄2	< 88
	AMTE-M-LH-G34	1205864	10	–	G3⁄4	< 85
	AMTE-M-LH-G1	1205865	10	–	G1	< 88

1) Packaging unit

**Silencer U**

- Sintered metal, polymer or die-cast design
- Compact design

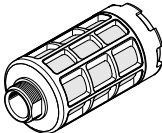
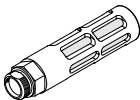
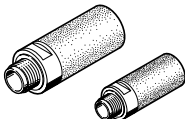
Silencer UC

- With push-in sleeve or threaded connection

Silencer UO

- Special minimal resistance silencer
- Facilitates trouble-free operation of the vacuum generator

Ordering data

Version	Type	Part No.	PU ¹⁾	Connection D1		For tubing I.D.	Push-in sleeve Ø	Noise level
				M thread	G thread			[dB (A)]
Sintered metal								
	U-PK-3	4646	1	–	–	3	–	< 70
	U-PK-4	4932	1	–		4		< 74
Polymer, male thread								
	U-3/8	2309	1	–	G3/8	–	–	< 82
	U-3/8-20	534224	20					
	U-1/2	2310	1	–	G1/2			< 80
	U-1/2-20	534225	20					
	U-3/4	2311	1	–	G3/4			< 83
	U-1	2312	1		G1			< 84
Die-cast metal								
	U-1/8-B	6841	1	–	G1/8	–	–	< 74
	U-1/4-B	6842	1		G1/4			< 80
	U-3/8-B	6843	1		G3/8			< 80
	U-1/2-B	6844	1		G1/2			< 80
	U-3/4-B	6845	1		G3/4			< 81
	U-1-B	151990	1		G1			< 80
With push-in sleeve for push-in fitting QS								
	UC-QS-3H	165005	1	–	–	–	3	< 60
	UC-QS-4H	165006	1				4	< 60
	UC-QS-6H	165007	1				6	< 60
	UC-QS-8H	175611	1				8	< 60
	UC-QS-10H	526475	1				10	< 68
Threaded connection, for solenoid valves CPE, Compact Performance								
	UC-M5	165003	1	M5	–	–	–	< 60
	UC-M5-50	534217	50					
	UC-M7	161418	1	M7	–			< 58
	UC-M7-50	534218	50					
	UC-1/8	161419	1	–	G1/8			< 59
	UC-1/8-50	534219	50					
	UC-1/4	165004	1	–	G1/4			< 60
	UC-1/4-20	534220	20					
For vacuum generators VN-T2/T3								
	UO-M7	197582	1	M7	–	–	–	
	UO-1/8	197583	1	–	G1/8			
	UO-1/4	197584	1	–	G1/4			

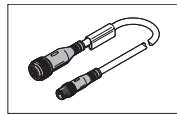
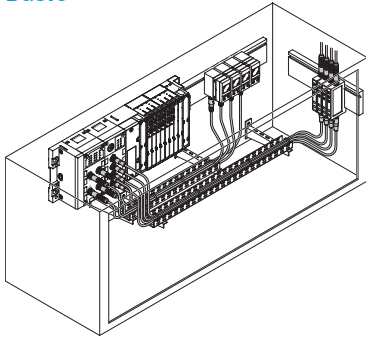
1) Packaging unit



Connecting cables NEBU

The configurable connecting cables offer unlimited combinations in terms of plug sockets, cable lengths, cable qualities and plugs. They are fit all devices with M8 and M12 plugs such as proximity sensors, position transmitters, pressure and flow sensors, optical and inductive sensors as well as individual valves.

Basic



The cable lengths can be freely selected between 0.1 and 30 m. The ends and middle pieces can also be freely selected for maximum customisation.

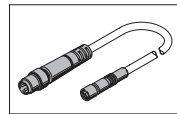
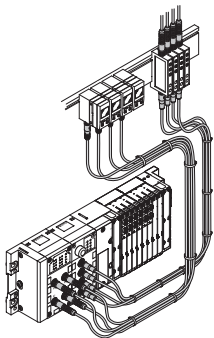
Applications

Static installation, no to little mechanical load

Basic cable characteristics

Price-optimised cable for simple, mainly static applications

Standard



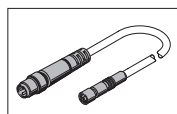
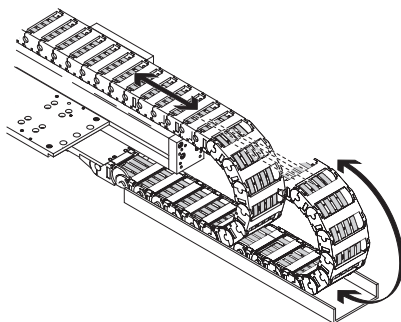
Applications

Low to average mechanical load, energy chains with large radius ≥ 75 mm

Standard cable characteristics

Good oil resistance, good reverse bending properties, suitable for use with energy chains

Energy chain



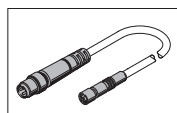
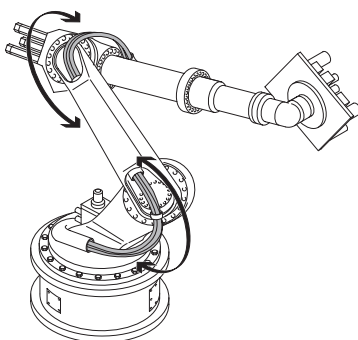
Applications

Energy chain applications involve high mechanical loads, particularly if very small radii are required.

Properties of cables suitable for use with energy chains

Very good oil resistance, very good reverse bending properties, highly suitable for use with energy chains, halogen-free

Robot



Applications

Robot applications involve high mechanical loads that are primarily caused by torsion.

Properties of robotics cable

Very good oil resistance, very good bending properties, suitable for use with energy chains, halogen-free

The technical data as well as an overview of the range of options for the connecting cables NEBU can be found online → [nebu](#)



Valve actuators for process automation

Quarter turn actuator Sypar DAPS

- Port pattern to NAMUR VDI/VDE 3845 for attaching solenoid valves
- Torque characteristics adapted to process valves
- Adjustable swivel angle

→ 182



Quarter turn actuator DFPB

- Identical torque characteristic across the entire rotation angle range of 90°
- Sturdy, impact-resistant and easy-to-clean aluminium housing

→ dfpb



Controllers

Positioner CMSX

- For position control of double-acting pneumatic quarter turn actuators in process automation systems
- Simple and efficient position control based on the PID control algorithm
- Suitable for quarter turn actuators with a swivel angle of approx. 90° and a mechanical interface in accordance with VDI/VDE Directive 3845

→ 184



Standard directional control valves

Electrically actuated directional control valves

Solenoid valve VSNC

- Port pattern to NAMUR VDI/VDE 3845
- 5/2-way valve, convertible
- Voltage 24 V DC
- Flow rate 2.5 ... 10 bar
- Temperature range -20 ... +60 °C

→ 186



Solenoid valve NVF3 (5/2)

- Port pattern to NAMUR VDI/VDE 3845
- Flow rate up to 900 l/min

→ nvf3



Solenoid valve VSNB (3/2, 5/2)

- Port pattern to NAMUR VDI/VDE 3845
- Flow rate up to 950 l/min

→ vsnb



Application-specific directional control valves

Solenoid valve VOFC/VOFD

- For applications in the chemical and petrochemical industries
- Robust design and high corrosion resistance

→ vofc



Process/media valves

Electrically actuated process and media valves

Solenoid valve VZWM-L

- Diaphragm valve
- Flow rate 1,400 ... 31,000 l/min

→ 188



Pneumatically and mechanically operated process and media valves

Proportional media valves VZQA

- 2/2-way pinch valve (NO)
- Aluminium + stainless steel housing (Clean Design)
- For controlling fluid/powdery media, solids, and material mixtures

→ vzqa



Angle seat valve VZXF

- Externally controlled 2/2-way valve
- Insensitive to steam or slightly contaminated media
- Flow rate Kv 2.8 ... 47.5 m³/h

→ 189



Ball valve VAPB

- 2-way shut-off valve
- Flow rate 2,000 ... 23,500 l/min
- Flange hole pattern to ISO 5211

→ vapb



Ball valve actuator unit VZBA

- 2-way ball valve actuator units
- Flow rates 7 ... 1,414 m³/h
- Flanged connection to ISO 5211
- Corrosion and acid resistant versions

→ 191



Ball valve drive unit VZPR

- Pneumatic double-acting quarter turn actuator and 2-way ball valve
- Flow rates 5.9 ... 535 m³/h

→ 193



Sensor boxes

Limit switch attachment SRBF

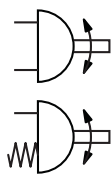
- Limit switch attachment with two mechanical switches in painted aluminium housing
- With 8-pin terminal block and yellow/red visual indicator

→ srbf



Quarter turn actuators Sypar DAPS

FESTO



- Port pattern to NAMUR VDI/VDE 3845 for attaching solenoid valves
- Compact design
- Low wear thanks to the simple and robust mechanical system
- Adjustable swivel angle
- Temperature range –20°C ... +80°C
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

Type codes – Basic design

		DAPS	–		090	R				
Type										
DAPS	Quarter turn actuator									
Size										
0008	Nominal torque 8 Nm									
0015	Nominal torque 15 Nm									
0030	Nominal torque 30 Nm									
0053	Nominal torque 53 Nm									
0060	Nominal torque 60 Nm									
0090	Nominal torque 90 Nm									
0106	Nominal torque 106 Nm									
0120	Nominal torque 120 Nm									
0180	Nominal torque 180 Nm									
0240	Nominal torque 240 Nm									
0360	Nominal torque 360 Nm									
0480	Nominal torque 480 Nm									
Swivel angle										
090	90°									
Closing direction										
R	Closes to the right									
Mode of operation										
–	Double-acting									
S	Single-acting									
Spring strength										
–	Not applicable for double-acting									
4	For connection pressure 5.6 bar									
1st flange hole pattern										
F03	Flange hole pattern F03									
F04	Flange hole pattern F04									
F05	Flange hole pattern F05									
F07	Flange hole pattern F07									
F10	Flange hole pattern F10									
2nd flange hole pattern										
–	Without									
05	Flange hole pattern F05									
07	Flange hole pattern F07									
10	Flange hole pattern F10									
12	Flange hole pattern F12									
16	Flange hole pattern F16									

Variants

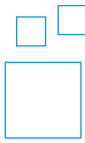
0720 ... 8,000 Nominal torque
720 ... 8,000 Nm

L Closes to the left
1 ... 3 Spring strength for connection
pressure 2.8 ... 4,2 bar

F12 ... F25 1st flange hole pattern F12
... F25
16 2nd flange hole pattern

MW Manual override with handwheel
T6 Temperature range –50°C ... +60°C
CR Corrosion protection

Ordering data – Variants



**Configurable
product**

**This product and all its variants
can be ordered using the
configurator.**

The configurator can be found on
the DVD under Products or at
→ www.festo.com/catalogue/...

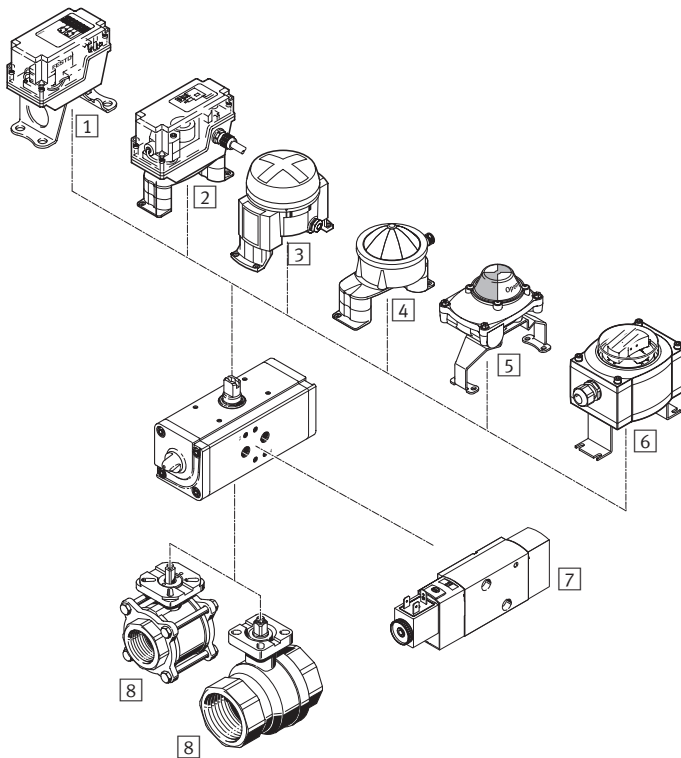
Enter the type or configuration
part number in the search field.

Ordering data – Basic design

Size	Double-acting	
	Type	Part No.
0008	DAPS-0008-090-R-F03	549666
0015	DAPS-0015-090-R-F03	533417
	DAPS-0015-090-R-F04	533475
0030	DAPS-0030-090-R-F0305	533418
	DAPS-0030-090-R-F04	533476
0053	–	
0060	DAPS-0060-090-R-F04	533419
	DAPS-0060-090-R-F0507	533477
0090	–	
0106	DAPS-0106-090-R-F0507	533420
0120	–	
0180	DAPS-0180-090-R-F0710	533421
0240	DAPS-0240-090-R-F0710	533422
0360	DAPS-0360-090-R-F0710	533423
0480	DAPS-0480-090-R-F1012	533424

Size	Single acting, pushing	
	Type	Part No.
0008	–	
0015	DAPS-0015-090-RS4-F0305	533430
	DAPS-0015-090-RS4-F04	533483
0030	DAPS-0030-090-RS4-F04	533434
	DAPS-0030-090-RS4-F0507	533487
0053	DAPS-0053-090-RS4-F0507	533438
0060	–	
	–	
0090	DAPS-0090-090-RS4-F0710	533442
0106	–	
0120	DAPS-0120-090-RS4-F0710	533446
0180	DAPS-0180-090-RS4-F0710	533450
0240	DAPS-0240-090-RS4-F1012	533454
0360	–	
0480	–	

Accessories



- 1 Limit switch attachment QH-DR-E
→ [qh-dr](#)
- 2 Limit switch attachment DAPZ
→ [dapz](#)
- 3 Limit switch attachment DAPZ
→ [dapz](#)
- 4 Limit switch attachment DAPZ
→ [dapz](#)
- 5 Limit switch attachment SRBF
→ [srbf](#)
- 6 Sensor box SRBP, SRAP → [srbp](#),
[srap](#)
- 7 Solenoid valve VSNC → 186,
- 8 Ball valve VAPB → [vapb](#)



- Positioner for double-acting quarter turn actuators
- High process reliability thanks to analogue and digital feedback signals
- The end position can be flexibly defined via the freely configurable analogue signal
- Very energy efficient: compressed air consumption when at rest = 0
- For automated butterfly valves, ball valves, bulk goods deflectors, etc.

Type codes

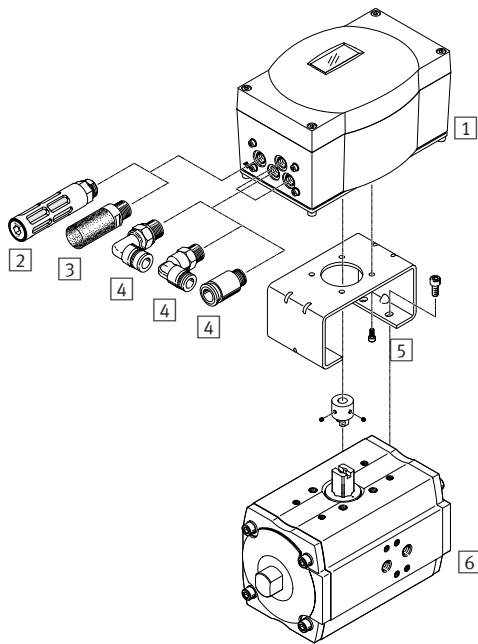
		CMSX	–	P	–	S	–	A1	–	C	–	U	–	F1	–	D	–	
Type																		
CMSX	Positioner for process automation																	
Product version																		
P	Primarily polymers																	
Design																		
S	Positioner, path/angle measurement integrated																	
Mechanical interface																		
A1	Hole pattern 30x80 mm																	
Display type																		
C	LCD, backlit																	
Setpoint value																		
U	Configurable (0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA)																	
Position feedback																		
F1	4 ... 20 mA																	
Function																		
D	Double-acting																	
Safety function																		
A	Open or close in case of breakdown ¹⁾																	
C	Maintain position ²⁾ in case of breakdown ¹⁾																	

1) Failure of the power supply
2) Pressurise quarter turn actuator at both ends

Ordering data

Positioner	Brief description	Type	Part No.
	Open or close in case of breakdown	CMSX-P-S-A1-C-U-F1-D-A	2092434
	Maintain position in case of breakdown	CMSX-P-S-A1-C-U-F1-D-C	2110841

Accessories



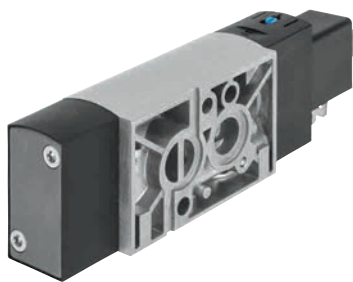
- 1 Positioner CMSX → 184
- 2 Silencer U, polymer, male thread → 175
- 3 Silencer UC, for reducing noise at exhaust ports → 175
- 4 Push-in fittings QS → 149
- 5 Mounting adapter DARQ, for connecting positioners/actuators for process automation → 185
- 6 Quarter turn actuators DAPS → 182, DFPB → [dfpb](#)

5 Mounting adapter DARQ

	Size	Type	Part No.
	20	DARQ-K-P-A1-F05-20-R1	2197135
	30	DARQ-K-P-A1-F05-30-R1	2197136
	30	DARQ-K-P-A2-F05-30-R1	2197137

Solenoid valves VSNC

FESTO



- 5/2-way valve convertible to 3/2-way valve by replacing the seal plate
- Voltage 24 V DC
- Operating pressure 2.5 ... 10 bar
- Temperature range –20 ... +60 °C
- Selected types in accordance with ATEX directive for potentially explosive atmospheres
→ www.festo.com/en/ex

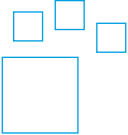
Type codes – Basic design

		VSNC – F – C –	M52	–	M	–	D	–	G14	–	F8	–	1	–	
Type															
VSNC	Solenoid valve														
F	Flanged valve														
–	Piston spool														
C	Convertible valve function														
Valve function															
M52	5/2-way valve, single solenoid														
Reset method for single solenoid valves															
M	Mechanical spring														
Manual override															
D	Non-detenting, detenting														
Pneumatic connection															
G14	G $\frac{1}{4}$														
Venting															
–	Without fitting														
Interface to valve pilot															
F8	With armature tube 8 mm long														
Nominal operating voltage															
1	24 V DC														
Electrical connection															
–	None														
B2	Connecting cable type B, industry standard														

Variants

T	Poppet valve	Interface to valve pilot	Nominal operating voltage	Electrical connection
B52	5/2-way valve, double solenoid	FN With armature tube 9 mm long	1A 24V AC/50-60 Hz	A1 Connecting cable type A, to EN 175301
M32C	3/2-way valve, normally closed	P1 Interface for pilot valve	3A 230V AC/50-60 Hz	C3 Cable, 3 m
P53C	5/3-way valve, mid-position closed	P2 Interface for pilot valve	3W 230V AC/240V AC/50-60 Hz	K11 Cable with insulating conduit connection
P53E	5/3-way valve, mid-position exhausted	Pneumatic connection	7A 48V AC/50-60 Hz	
P53U	5/3-way valve, mid-position pressurised	Q6 Push-in connector 6 mm	16B 120V AC/60 Hz and 110V AC/50-60 Hz	Degree of protection for electrics
H	Manual override, non-detenting, resetting	Q8 Push-in connector 8 mm	4 5V DC	S8 IP67
S	Manual override, covered	N14 N $\frac{1}{4}$	5 12V DC	EU certification
		Q10 Push-in connector 10 mm	7 48V DC	EX1 II 3G
		T14 Push-in connector $\frac{1}{4}$	Ignition protection type	EX2 II 3GD
		T38 Push-in connector $\frac{3}{8}$	A Intrinsically safe	EX3 II 2G
		T516 Push-in connector 5/16	M Moulded encapsulation	EX4 II 2GD
			N Non-sparking	
Venting			Electrical accessories, valve	Approval certificate
QN	With fitting		G Connector socket without LED	C1 CSA mark (Canada)
U1	Silencer with metal housing		GS Connector socket, with protective circuit	U1 cULus, normal environment, USA and Canada
U3	Silencer with polymer housing			U4 Class 1 Div 1 to NEC 500

Ordering data – Variants

	Configurable product	This product and all its variants can be ordered using the configurator.	The configurator can be found on the DVD under Products or at www.festo.com/catalogue/...	Enter the type or configuration part number in the search field.
--	----------------------	--	--	--

Ordering data – Basic design

Solenoid valve		Solenoid valve with plug socket	
Type	Part No.	Type	Part No.
VSNC-FC-M52-MD-G14-F8	577257	VSNC-FC-M52-MD-G14-F8-1B2	577295

Accessories

Solenoid coil VACF-B for solenoid valve VSNC-FC-M52-MD-G14-F8		
Description	Type	Part No.
Connection arrangement type B, industry standard		
12 V DC	VACF-B-B2-5	8030801
24 V DC	VACF-B-B2-1	8030802
48 V DC	VACF-B-B2-7	8030803
24 V AC; 50/60 Hz	VACF-B-B2-1A	8030804
48 V AC; 50/60 Hz	VACF-B-B2-7A	8030805
110/120 V AC; 50/60 Hz	VACF-B-B2-16B	8030806
230/240 V AC; 50/60 Hz	VACF-B-B2-3W	8030808

Solenoid valves VZWM-L

FESTO



- Indirectly controlled poppet valve with diaphragm control
- Flow rate 1,400 ... 31,000 l/min
- Varied range of coils

Type codes

		VZWM	—	L	—	M22C	—		—		—												
Type																							
VZWM	Solenoid valve, process directional control valve																						
Design																							
L	In-line valve																						
Valve function																							
M22C	2/2-way valve, normally closed																						
Connection, process valve																							
G14	G¼																						
G38	G⅜																						
G12	G½																						
G34	G¾																						
G1	G1																						
G114	G1¼																						
G112	G1½																						
G2	G2																						
Electrical connection																							
F4	With armature tube for solenoid coil MD-2- ... -PA																						
F5	With armature tube for solenoid coil MH-2- ... -PA																						
Housing material																							
R1	Stainless steel casting																						
	Brass																						

Ordering data

Connection, process valve	Brass housing		Stainless steel casting housing	
	Type	Part No.	Type	Part No.
G $\frac{1}{4}$	VZWM-L-M22C-G14-F4	546146	VZWM-L-M22C-G14-F5-R1	546162
G $\frac{3}{8}$	VZWM-L-M22C-G38-F4	546147	VZWM-L-M22C-G38-F5-R1	546163
G $\frac{1}{2}$	VZWM-L-M22C-G12-F4	546148	VZWM-L-M22C-G12-F5-R1	546164
G $\frac{3}{4}$	VZWM-L-M22C-G34-F4	546149	VZWM-L-M22C-G34-F5-R1	546165
G1	VZWM-L-M22C-G1-F4	546150	VZWM-L-M22C-G1-F5-R1	546166
G1 $\frac{1}{4}$	VZWM-L-M22C-G114-F5	546151	VZWM-L-M22C-G114-F5-R1	546167
G1 $\frac{1}{2}$	VZWM-L-M22C-G112-F5	546152	VZWM-L-M22C-G112-F5-R1	546168
G2	VZWM-L-M22C-G2-F5	546153	VZWM-L-M22C-G2-F5-R1	546169

Accessories

Solenoid coil MD			Solenoid coil MH			Plug socket MSSD		
Voltage	Type	Part No.	Voltage	Type	Part No.	Electrical connection	Type	Part No.
Solenoid coil for VZWM- ... -F4- ...			Solenoid coil for VZWM- ... -F5- ...			3-pin, square design		
24 V DC	MD-2-24VDC-PA	549903	24 V DC	MH-2-24VDC-PA	549906	MSF	MSSD-N	550067
110 V AC, 50 ... 60 Hz	MD-2-110VAC-PA	549904	110 V AC, 50 ... 60 Hz	MH-2-110VAC-PA	549907			
230 V AC, 50 ... 60 Hz	MD-2-230VAC-PA	549905	230 V AC, 50 ... 60 Hz	MH-2-230VAC-PA	549908			

- Use with slightly contaminated media also possible
- Use for steam applications possible
- Direct supply of pilot air

VZXF – L – M22C – M – – – – – – –

[illegible]

Angle seat valves VZXF

FESTO

Ordering data

Process valve connection	Gunmetal (red brass) design		Stainless steel design	
	Type	Part No.	Type	Part No.
G½	VZXF-L-M22C-M-A-G12-120-H3B1-50-16	1002500	VZXF-L-M22C-M-A-G12-130-M1-V4V4T-50-25	1002512
	VZXF-L-M22C-M-B-G12-120-H3B1-50-16	1002501	VZXF-L-M22C-M-B-G12-130-M1-V4V4T-50-40	1002513
G¾	VZXF-L-M22C-M-A-G34-160-H3B1-50-16	1002502	VZXF-L-M22C-M-A-G34-180-M1-V4V4T-50-20	1002514
	VZXF-L-M22C-M-B-G34-160-H3B1-50-16	1002503	VZXF-L-M22C-M-B-G34-180-M1-V4V4T-50-20	1002515
G1	VZXF-L-M22C-M-A-G1-230-H3B1-50-16	1002504	VZXF-L-M22C-M-A-G1-240-M1-V4V4T-50-16	1002516
	VZXF-L-M22C-M-B-G1-230-H3B1-50-10	1002505	VZXF-L-M22C-M-B-G1-240-M1-V4V4T-50-10	1002517
			VZXF-L-M22C-M-A-G1-240-M1-V4V4T-80-40	1002525
			VZXF-L-M22C-M-B-G1-240-M1-V4V4T-80-22	1002526
G1¼	VZXF-L-M22C-M-A-G114-290-H3B1-50-10	1002506	VZXF-L-M22C-M-A-G114-310-M1-V4V4T-50-9	1002518
	VZXF-L-M22C-M-B-G114-290-H3B1-50-7	1002507	VZXF-L-M22C-M-B-G114-310-M1-V4V4T-50-7	1002519
			VZXF-L-M22C-M-A-G114-310-M1-V4V4T-80-25	1002527
			VZXF-L-M22C-M-B-G114-310-M1-V4V4T-80-10	1002528
G1½	VZXF-L-M22C-M-A-G112-350-H3B1-50-8	1002508	VZXF-L-M22C-M-A-G112-350-M1-V4V4T-50-7	1002520
	VZXF-L-M22C-M-B-G112-350-H3B1-50-6	1002509	VZXF-L-M22C-M-B-G112-350-M1-V4V4T-50-6	1002521
			VZXF-L-M22C-M-A-G112-350-M1-V4V4T-80-20	1002529
			VZXF-L-M22C-M-B-G112-350-M1-V4V4T-80-8	1002530
G2	VZXF-L-M22C-M-A-G2-430-H3B1-50-4	1002510	VZXF-L-M22C-M-A-G2-450-M1-V4V4T-50-4	1002522
	VZXF-L-M22C-M-B-G2-430-H3B1-50-3	1002511	VZXF-L-M22C-M-B-G2-450-M1-V4V4T-50-3	1002523
			VZXF-L-M22C-M-A-G2-450-M1-V4V4T-80-12	1002531
			VZXF-L-M22C-M-B-G2-450-M1-V4V4T-80-5	1002532

- www.festo.com/en/ex

[illegible]

Ball valve actuator units VZBA

FESTO

Variants

Connection type 1 and 2:

W Weld-on end

Flanged connection:

F07 1 pitch circle diameter of dia. 70 mm

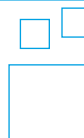
Spring index

1 Spring strength for connection pressure 2.8 bar

2 Spring strength for connection pressure 3.5 bar

3 Spring strength for connection pressure 4.2 bar

Ordering data – Variants



Configurable product

This product and all its variants can be ordered using the configurator.

The configurator can be found on the DVD under Products or at

→ www.festo.com/catalogue/...

Enter the type or configuration part number in the search field.

Ordering data – Basic design

Connecting thread	DAPS, double-acting	
	Type	Part No.
Rp1/4	VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C	1809651
Rp3/8	VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C	1809652
Rp1/2	VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C	1809653
Rp3/4	VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PP30-R-90-C	1809654
Rp1	VZBA-1"-GG-63-T-22-F0405-V4V4T-PP30-R-90-C	1809655
Rp1 1/4	VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PP60-R-90-C	1809656
Rp1 1/2	VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C	1809657
Rp2	VZBA-2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C	1809658
Rp2 1/2	VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PP106-R-90-C	1809659
Rp3	VZBA-3"-GG-63-T-22-F0710-V4V4T-PP180-R-90-C	1809660
Rp4	VZBA-4"-GG-63-T-22-F10-V4V4T-PP240-R-90-C	1809661

Connecting thread	DAPS, single-acting	
	Type	Part No.
Rp1/4	VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C	1758069
Rp3/8	VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C	1758070
Rp1/2	VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C	1758071
Rp3/4	VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PS30-R-90-4-C	1758072
Rp1	VZBA-1"-GG-63-T-22-F0405-V4V4T-PS30-R-90-4-C	1758073
Rp1 1/4	VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PS53-R-90-4-C	1758074
Rp1 1/2	VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PS53-R-90-4-C	1758075
Rp2	VZBA-2"-GG-63-T-22-F0507-V4V4T-PS90-R-90-4-C	1758076
Rp2 1/2	VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PS120-R-90-4-C	1758077
Rp3	VZBA-3"-GG-63-T-22-F0710-V4V4T-PS180-R-90-4-C	1758078
Rp4	VZBA-4"-GG-63-T-22-F10-V4V4T-PS240-R-90-4-C	1758079



- Combination of a pneumatic quarter turn actuator and a ball valve
- Flow rate 5.9 ... 535 m³/h

Type codes

		VZPR	-	B	P	D	-	22	-	R	-	
Type												
VZPR	Ball valve actuator											
Valve												
B	Ball valve											
Drive												
P	Quarter-turn actuator DAPS											
Mode of operation												
D	Double-acting											
Valve function												
22	2/2-way valve											
Closing direction												
R	Closes to the right											
Connecting thread												
14	Rp1/4											
38	Rp3/8											
12	Rp1/2											
34	Rp3/4											
1	Rp1											
114	Rp1 1/4											
112	Rp1 1/2											
2	Rp2											
212	Rp2 1/2											

Ordering data

Connecting thread	Type	Part No.
Rp1/4	VZPR-BPD-22-R14	540510
Rp3/8	VZPR-BPD-22-R38	540511
Rp1/2	VZPR-BPD-22-R12	540512
Rp3/4	VZPR-BPD-22-R34	540513
Rp1	VZPR-BPD-22-R1	540514
Rp1 1/4	VZPR-BPD-22-R114	540515
Rp1 1/2	VZPR-BPD-22-R112	540516
Rp2	VZPR-BPD-22-R2	540517
Rp2 1/2	VZPR-BPD-22-R212	540874

Provided consistently: comprehensive support

Festo's services and support philosophy are based on the continuous analysis of the value creation chain for different types of customers. Festo has built on this to develop a sophisticated portfolio that supports you along your entire value creation chain. It includes numerous services such as the Energy Saving Services, customised developments of ready-to-install solutions and special designs.

Our digital information system now consists of a database-supported catalogue with over 30,000 products and accessories as well as other tools for configuration, planning and design. Globally standardised application platforms for product lifecycle, production, logistics, sales and finance help to create integrated, global processes for your benefit.

Engineering



- Consulting
- Design aids
- 2D/3D CAD drawings and models
- Design and sizing tools
- Selection tools
- Engineering of ready-to-install solutions

Procurement/logistics



- Festo Online Shop
- 24-hour delivery service
- Logistics optimisation service
- PrePack

Assembly and commissioning



- Commissioning of axis systems
- Compressed air consumption analysis
- Commissioning and training for servo-pneumatic welding guns

Operation



- Worldwide after sales service
- Energy Saving Services
- Compressed air quality analysis
- Support portal with documentation for the entire product lifecycle

Are you interested in these services?

Simply ask your local contact person or go to www.festo.com/services to find out more information about our services.

Energy efficiency in focus

We are the catalyst for your efficiency. You can rely on our technical experts and efficient technologies that will ensure your machines and systems consume fewer resources and less energy.

This reduces your CO2 emissions as well as your operating costs. And it increases numerous factors too, for example the sustainability of your production processes and your company's productivity.

Intelligent design

- Intelligent and innovative selection software for the correct design of systems.
- Chose smaller components, avoid the accumulation of safety factors.



Products and solutions

- Festo offers products and solutions that use energy more efficiently. You can implement the surprising savings potential now.
- From high-performance, simple pneumatic systems right up to precise, highly dynamic automation technology.



Focus

Energy
efficiency



Industrial education

- Take advantage of the expertise of our sales engineers and energy efficiency consultants.
- Benefit from Festo Didactic's close links to industry and its training offering.



Services

- Festo Energy Saving Services: the service package for the best possible utilisation of savings potential.
- From compressed air audits to the implementation of energy-saving solutions, our specialists support you with customised services.

Simply ask your local contact person or go to:

→ www.festo.com/energy

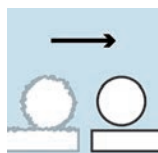
12 ways to save energy!

12 different measures and ways to save energy successfully.

In the opinion of our experts, these measures promote quick and simple implementation of suitable optimisation, for example as described in VDMA standard sheet 24581 (Fluidtechnik – Anwendungshinweise zur Optimierung der Energieeffizienz von Pneumatikanlagen). The following examples show best-case scenarios of how much you can save with the help of each measure.

Our tip: Ask for advice from the experts at Festo who are highly knowledgeable with regard to energy efficiency and have mastered the implementation of this integrated approach.

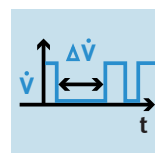
From the product ...



Reduce friction

- Use low-friction mechanical components
- [dgsI](#)

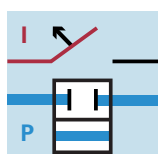
-15%



Use air-saving circuit

- Vacuum handling with monitored switch-off
- [ovem](#)

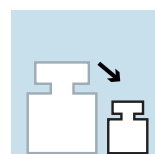
-60%



Switch off power

- Leakages reduced by up to 10%
- In this case for the entire compressed air system

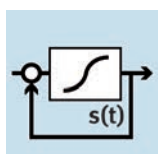
-10%



Reduce weight

- Optimal technology mix
- Electric handling unit with pneumatic Z-axis

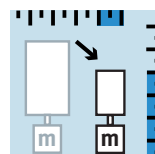
-18%



Efficient open- and closed-loop control

- Adapt operating profiles
- Optimise controllers
- [fct](#)

-10%



Size correctly

- Optimum size
- Opt for one size smaller for pneumatic drives
- www.festo.com/support

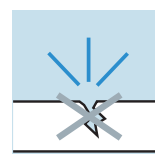
-35%



Reduce the pressure level

- With a pressure regulator
- Pressure-reduced return stroke
- 6 → 3 bar
- [vabf](#)
- [ms](#)

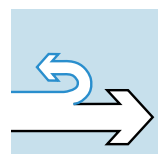
-22%



Reduce leakages

- Regular leakage detection, condition monitoring
- [fess](#)

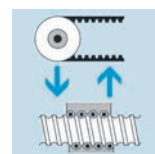
-20%



Recover energy

- Save braking energy in the linked intermediate circuit
- [cmmf](#)

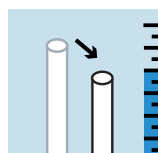
-10%



Choose the right components

- Motor with holding brake for long standstills

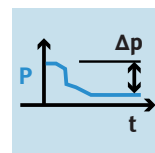
-14%



Shorten tube lengths

- Decentralised valve terminal
- Optimal tubing layout
- [zrs](#)

-25%



Reduce pressure losses

- Optimal tubing diameter, fewer line resistances
- Reduced network pressure
- 8 → 7 bar
- [ms4](#)

-6%

... to the system

Festo Didactic is the world's leading supplier to technical educational institutions as well as a provider of consulting and training services to industry. Our product and services portfolio represents the entire field of technology of factory and process automation.

In addition, our customers benefit from close cooperation with Festo Automation – we have a direct insight into the industrial practice of the innovation leader in factory and process automation.

Overview of topics



- Pneumatics
- Hydraulics
- Programmable logic controllers (PLC)
- Electrical engineering/electronics
- Process automation
- Handling systems
- Water management
- Maintenance
- Supply chain management
- Lean production
- Process optimisation
- Service and sales competence

Training offering



- Public seminars
- Company-specific training courses
- Consulting
- Coaching
- Competence programs
- Business games

Our skill – From practical experts for practical users



- Practical learning on the most modern devices and systems
- Trainers with many years of practical experience
- Educational and methodological know-how

- 2,900 courses annually
- 39 languages
- 42,000 participants worldwide

Do you want more details about Festo Didactic's programme or a copy of the seminar catalogue?

Simply ask your local contact person or go to:

→ www.festo-didactic.com

.com.ar
.at
.com.au
.be
.bg
.com.br
.by
.ca
.ch
.cl
.cn
.co
.cz
.de
.dk
.ee
.es
.fi
.fr
.gr
.hk
.hr
.hu
.co.id
.ie
.co.il
.in
.ir
.it
.jp
.kr
.lt
.lv
.mx

Festo worldwide
www.festo.com

.com.my
.nl
.no
.co.nz
.pe
.ph
.pl
.pt
.ro
.ru
.se
.sg
.si
.sk
.co.th
.com.tr
.tw
.ua
.co.uk
.us
.co.ve
.vn
.co.za