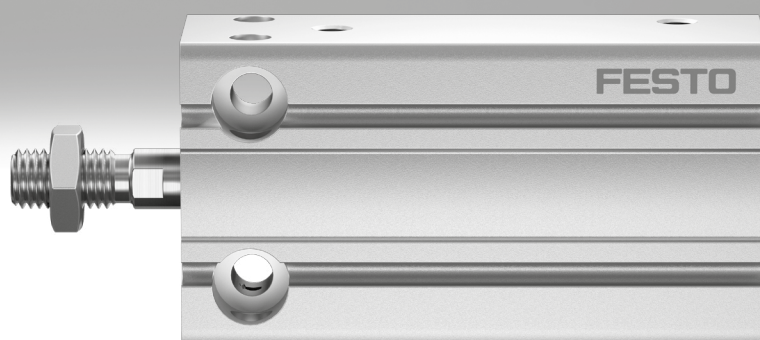


Compact cylinder DPDM, multi-mount

FESTO



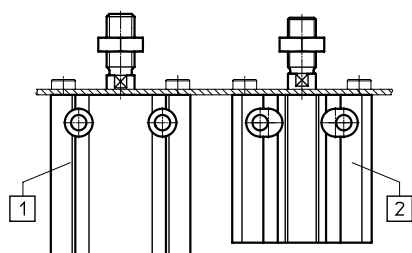
Key features

At a glance

- Double- and single-acting versions
- With and without protection against rotation
- Easy to interchange compared to compact cylinder DMM
- Simple to mount thanks to a wide range of mounting interfaces
- Optional: heat-resistant up to 120 °C

Comparison of compact cylinder DMM and compact cylinder DPDM

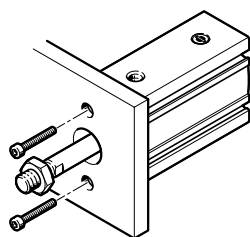
- All mounting interfaces of compact cylinder DPDM are compatible with those of compact cylinder DMM
- Compared to DMM, however, DPDM is noticeably shorter, giving a lower product weight for the same functionality



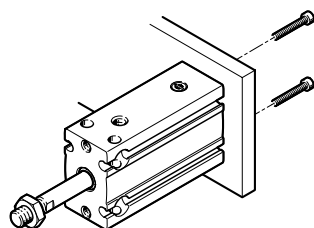
[1] Compact cylinders DMM
[2] Compact cylinders DPDM

Mounting options

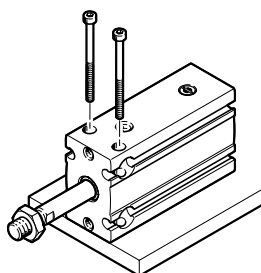
Mounting at the front



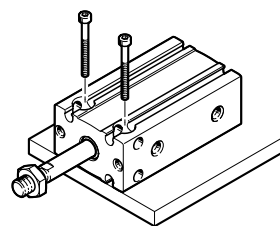
Mounting at the rear



Vertical mounting



Horizontal mounting



For manufacturing lithium-ion batteries

DPDM-...-F1A

Recommended for production systems for manufacturing lithium-ion batteries. Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.

Accessories

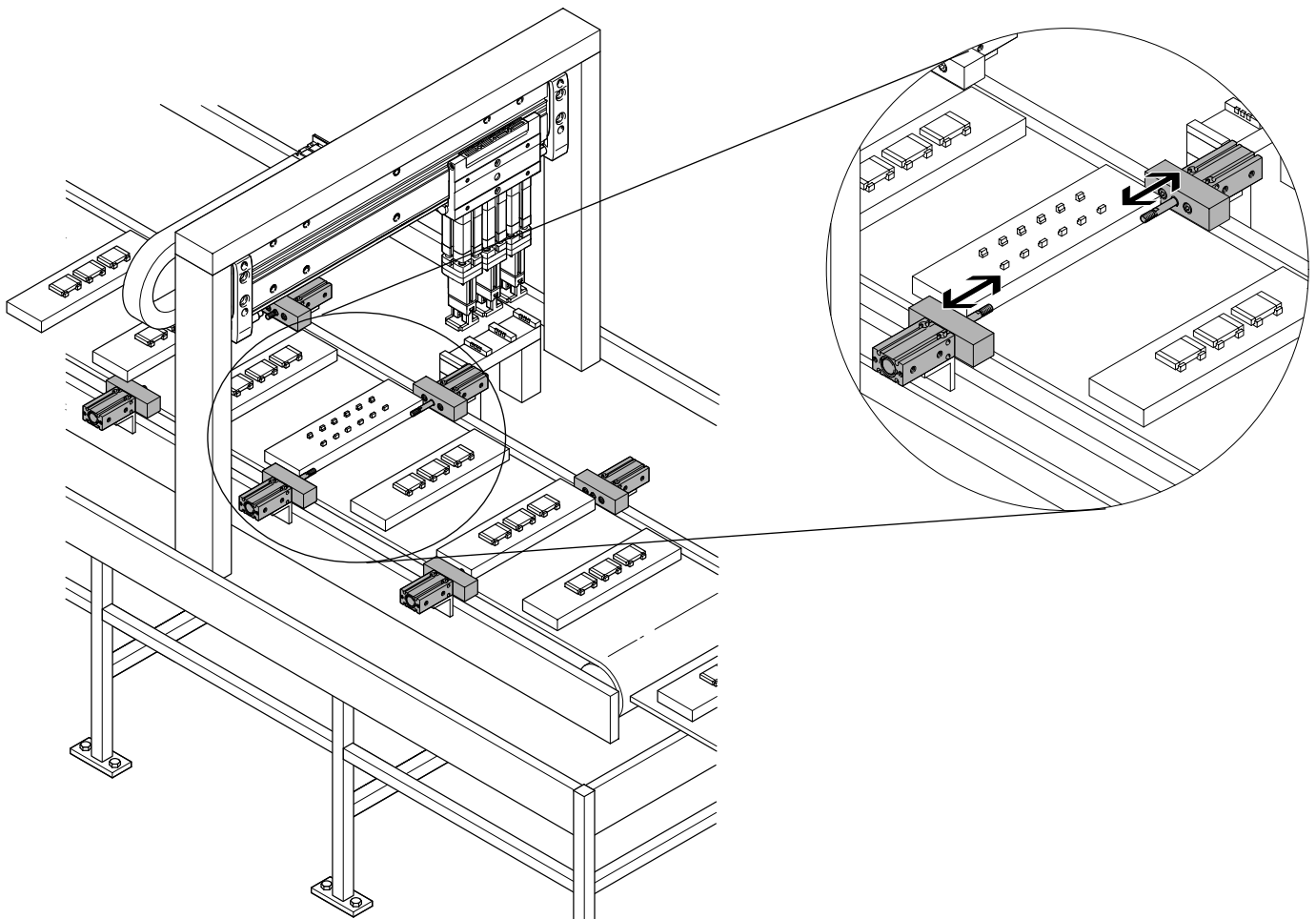
Please contact your Festo representative for information on which accessories are suitable for manufacturing lithium-ion batteries.

Key features

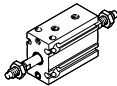
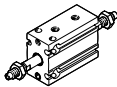
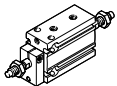
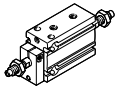
Variants from the modular product system		
Symbol	Key features	Description
	T Through piston rod	The piston rod can be used for attachment at both ends of the cylinder
	H Through, hollow piston rod	The piston rod can be used for attachment at both ends of the cylinder. The piston rod is hollow inside. This means it can be used to carry vacuum or compressed air
	T1 Heat-resistant seals	Temperature range 0 ... +120 °C
	F1A Recommended for production plants for manufacturing Li-ion batteries	Cylinders free of copper, zinc and nickel ($\leq 1\%$)

Application example

Stopping small parts



Product range overview

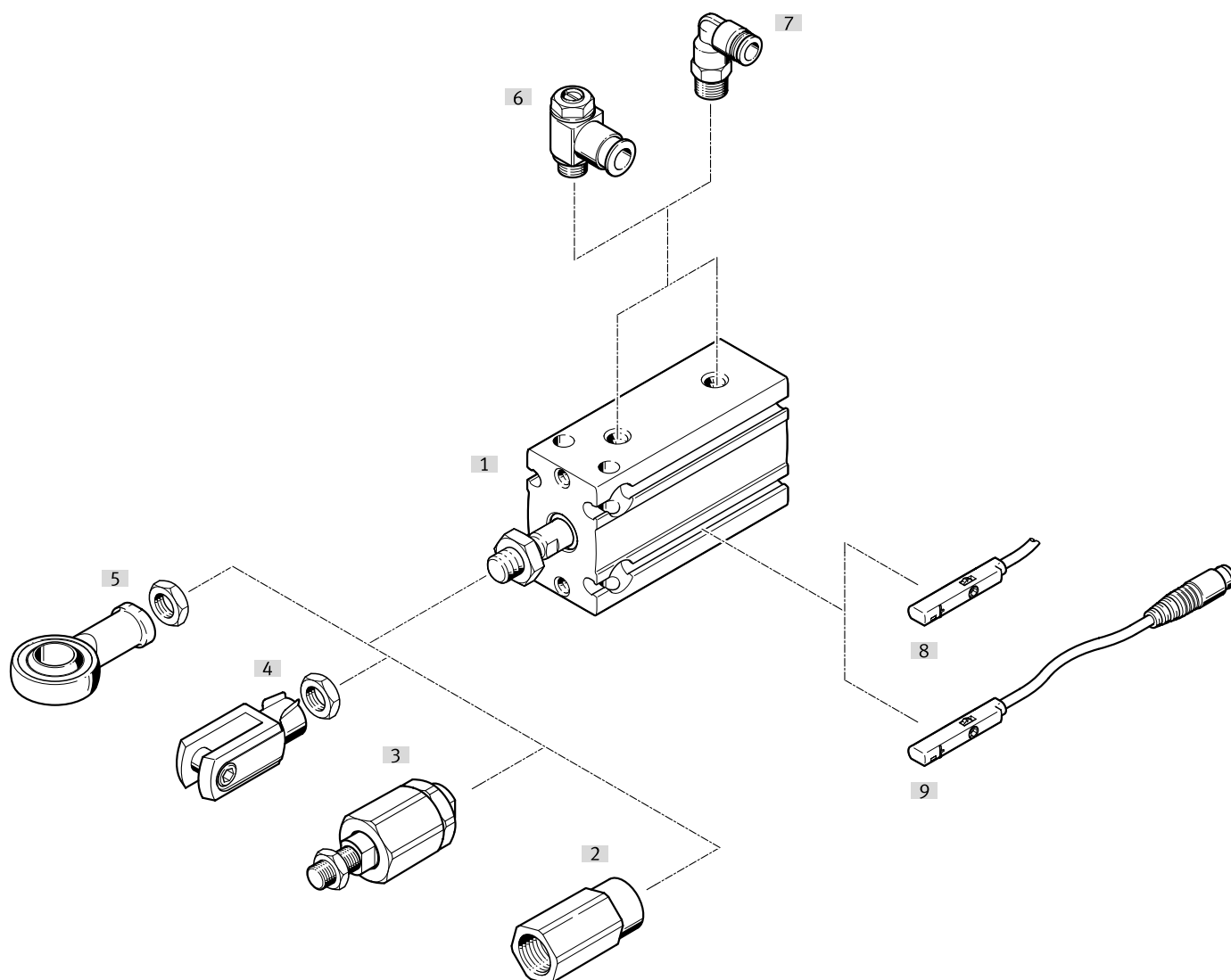
Function	Version	Type	Piston ø [mm]	Stroke [mm]	Temperature range [T1] 0 ... +120 °C	Battery manufacturing [F1A]	→ Page/ Internet
Double-acting	Basic version						
		DPDM Piston rod at one end	6, 10	5, 10, 15, 20, 25, 30	■ From Ø 10	■ Not with T1	5
			16, 20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50			
		DPDM-...-T Through piston rod	6, 10	5, 10, 15, 20, 25, 30	—	■ Not with T1	
			16, 20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50			
		DPDM-...-H Through, hollow piston rod	16, 20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50	—	■ Not with T1	
	With protection against rotation						
		DPDM-Q Piston rod at one end	6, 10	5, 10, 15, 20, 25, 30	■ From Ø 10	■ Not with T1	5
			16, 20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50		■ Not with T1	
		DPDM-Q-...-T Through piston rod	6, 10	5, 10, 15, 20, 25, 30	—	■ Not with T1	
			16, 20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50		■ Not with T1	
		DPDM-Q-...-H Through, hollow piston rod	16, 20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50	—	■ Not with T1	
Single-acting	Basic version						
		DPDM-...-S Piston rod at one end, push- ing	6, 10	5, 10, 15	—	—	5
			16, 20, 25, 32	5, 10, 15	—	—	
		DPDM-...-P Piston rod at one end, pulling	6, 10	5, 10, 15	—	—	
			16, 20, 25, 32	5, 10, 15	—	—	
	With protection against rotation						
		DPDM-Q-...-S Piston rod at one end, push- ing	6, 10	5, 10, 15	—	—	5
			16, 20, 25, 32	5, 10, 15	—	—	
		DPDM-Q-...-P Piston rod at one end, pulling	6, 10	5, 10, 15	—	—	
			16, 20, 25, 32	5, 10, 15	—	—	

Type codes

001	Series	
DPDM	Cylinder, multimount	
002	Protection against rotation	
	None	
Q	With protection against rotation	
003	Piston diameter [mm]	
6	6	
10	10	
16	16	
20	20	
25	25	
32	32	
004	Stroke [mm]	
5	5	
10	10	
15	15	
20	20	
25	25	
30	30	
40	40	
50	50	

005	Function	
	Double-acting	
P	Single-acting, pulling	
S	Single-acting, pushing	
006	Piston rod type	
	At one end	
H	Through, hollow piston rod	
T	Through piston rod	
007	Cushioning	
P	Elastic cushioning rings/plates on both sides	
008	Position sensing	
A	For proximity sensor	
009	Temperature range	
	Standard	
T1	Heat-resistant seals max. 120°C	
010	Special material properties	
	None	
F1A	Recommended for production plants for manufacturing lithium-ion batteries, F1A	

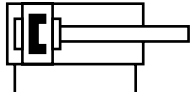
Peripherals overview



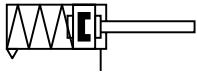
Accessories		Description	→ Page/Internet
[1]	Compact cylinder DPDM	Double- and single-acting versions	7
[2]	Adapter AD	For suction cup	16
[3]	Self-aligning rod coupler FK	To compensate for radial and angular deviations	16
[4]	Rod clevis SG	Permits a swivelling movement of the cylinder in one plane	16
[5]	Rod eye SGS	With spherical bearing	16
[6]	One-way flow control valve GRLA/VFOH	For regulating speed	10
[7]	Push-in fitting QS	For connecting tubing with standard O.D.	16
[8] [9]	Proximity switch SME/SMT-8, SMT-10	Can be integrated in the cylinder profile barrel	17

Datasheet

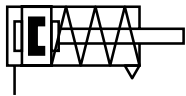
Function
DPDM



DPDM-...-P



DPDM-...-S



- $\varnothing$ - Diameter
6 ... 32 mm
- I - Stroke length
5 ... 50 mm



General technical data						
Piston ø	6	10	16	20	25	32
Design	Piston					
	Piston rod					
	Profile tube					
Operating mode	Double- and single-acting					
Pneumatic connection	M5	M5	M5	M5	M5	G1/8
Piston rod thread	M3	M4	M6	M8	M10x1.25	M10x1.25
Stroke						
DPDM-...	5, 10, 15, 20, 25, 30		5, 10, 15, 20, 25, 30, 40, 50			
DPDM-...S/-P	5, 10, 15					
Cushioning ¹⁾	Elastic cushioning rings/plates at both ends					
Position sensing	Via proximity switch					
Type of mounting	Via through-hole					
	With female thread					
Mounting position	Any					

1) With piston diameter 6 in combination with the function "Single-acting, pushing", there is only cushioning at the bearing cap.

Operating and environmental conditions							
Piston Ø		6	10	16	20	25	32
Operating pressure							
DPDM-...	[MPa]	0.18 ... 0.8	0.15 ... 0.8		0.1 ... 0.8		
	[bar]	1.8 ... 8	1.5 ... 8		1 ... 8		
DPDM-Q-...	[MPa]	0.2 ... 0.8	0.15 ... 0.8		0.1 ... 0.8		
	[bar]	2 ... 8	1.5 ... 8		1 ... 8		
DPDM-...S/-P	[MPa]	0.25 ... 0.8	0.2 ... 0.8		0.15 ... 0.8		
	[bar]	2.5 ... 8	2 ... 8		1.5 ... 8		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]					
Note on the operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)					
Ambient temperature ¹⁾							
DPDM-...	[°C]	-10 ... +80					
DPDM-...-T1	[°C]	-	0 ... +120				
Corrosion resistance class CRC ²⁾							
DPDM-...	1 - Low corrosion stress ³⁾						
	-			2 - Moderate corrosion stress ³⁾			
DPDM-...-F1A	0 - no corrosion stress						

1) Note operating range of proximity switches

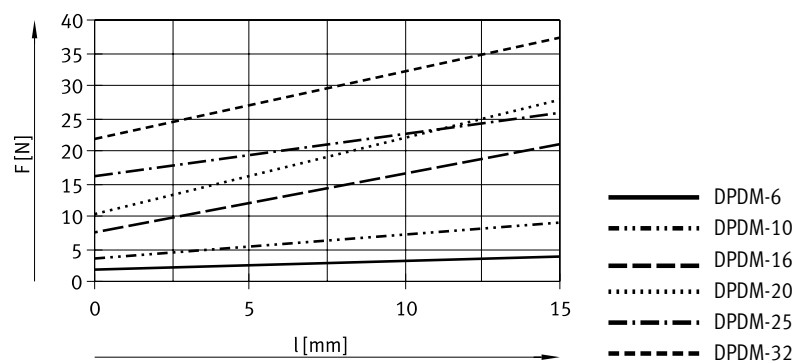
2) More information www.festo.com/x/topic/crc

3) CRC1 or CRC2, depending on the respective configuration

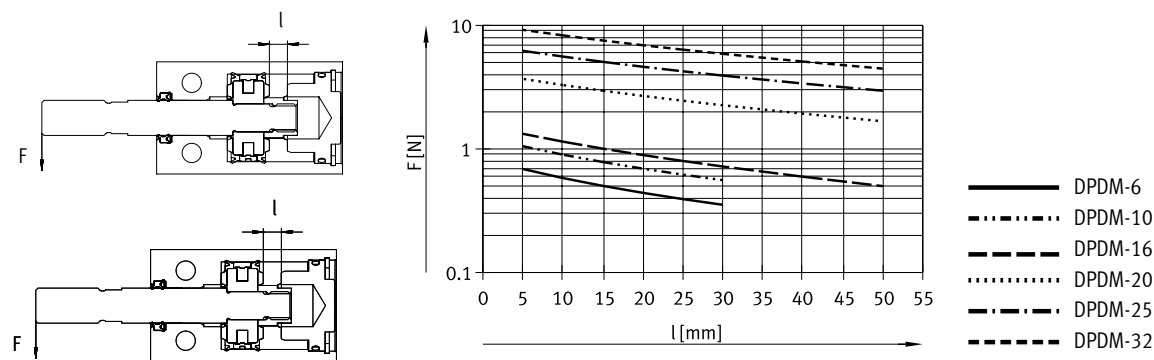
Datasheet

Forces [N] and impact energy [J]						
Piston Ø	6	10	16	20	25	32
Theoretical force at 0.6 MPa (6 bar, 87 psi), advancing						
DPDM-...	17	47	121	188	295	483
DPDM-...-S	13	38	100	160	269	445
DPDM-...-T/-H	13	40	104	158	247	415
Theoretical force at 0.6 MPa (6 bar, 87 psi), retracting						
DPDM-...	13	40	104	158	247	415
DPDM-...-P	9	31	93	130	221	377
Max. impact energy in the end positions	0.006	0.012	0.15	0.2	0.3	0.4

Theoretical spring force F as a function of stroke length l



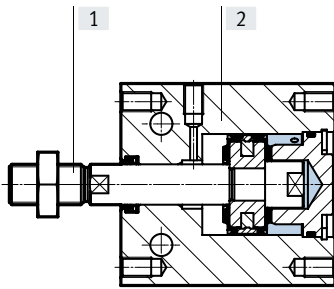
Max. lateral force F as a function of stroke length l



Technical data – Protection against rotation						
Piston Ø	6	10	16	20	25	32
Max. torque at the piston rod ¹⁾ [Nm]	0.0015	0.005	0.01	0.01	0.015	0.02

1) The max. torque must not be exceeded even when attaching mounting components to the piston rod

Datasheet



Materials

Sectional view

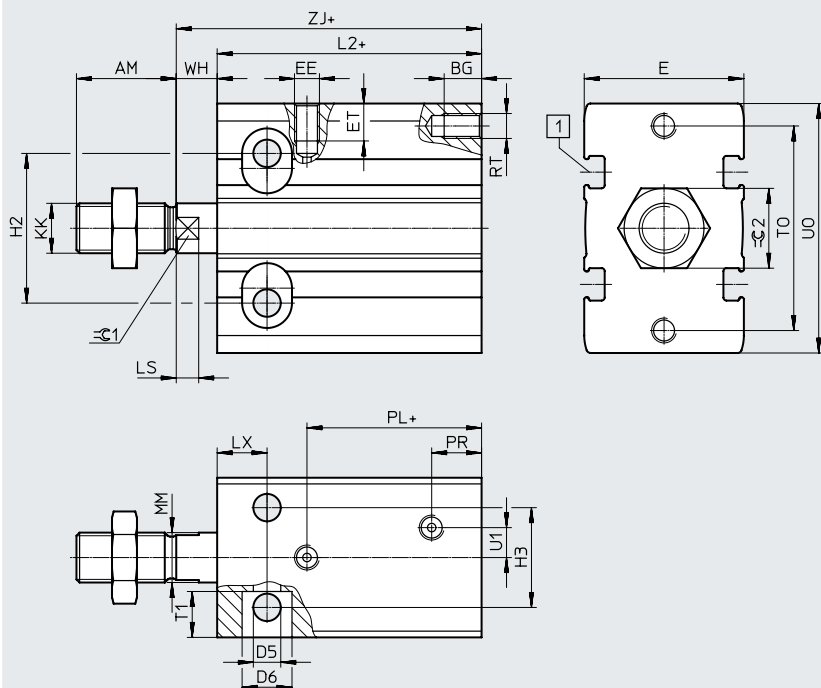
Compact cylinder

[1]	Housing	Wrought aluminium alloy
[2]	Piston rod	High-alloy stainless steel
Seals		
	DPDM-...	NBR/TPE-U(PU)
	DPDM-...-T1	HNBR/FKM
	Note on materials	RoHS-compliant
	Cleanroom class	Class 6 to ISO 14644-1
	LABS (PWIS) conformity	VDMA24364-B2-L
	DPDM-...-F1A	Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils

Weight [g]						
Piston Ø	6	10	16	20	25	32
Double-acting						
DPDM-...-PA						
Product weight with 0 mm stroke	20.7	30	66	128	205	307
Additional weight per 10 mm stroke	6.3	7.5	13	22	33.5	51
Moving mass with 0 mm stroke	2.8	6.3	18	34.5	58	85
Moving mass per 10 mm stroke	0.6	1.0	2.3	4	6.5	9
DPDM-Q-...-PA – with protection against rotation						
Product weight with 0 mm stroke	25.5	36.5	75	140	223	331
Additional weight per 10 mm stroke	6.3	7.5	13.5	22.5	35	52.5
Moving mass with 0 mm stroke	7.1	12.5	27	46	76	109
Moving mass per 10 mm stroke	0.9	1.3	2.8	4.6	8	10.5
Single-acting						
DPDM-...-S-PA – pushing						
Product weight with 0 mm stroke	21	30.5	66	117	192	310
Additional weight per 10 mm stroke	6.3	7.5	13	22	33.5	51
Moving mass with 0 mm stroke	3	6.8	18	34.5	58	85
Moving mass per 10 mm stroke	0.6	1	2.3	4	6.5	9
DPDM-Q-...-S-PA – pushing, with protection against rotation						
Product weight with 0 mm stroke	25.5	37	75	129	210	334
Additional weight per 10 mm stroke	6.3	7.5	13	22	35	52.5
Moving mass with 0 mm stroke	7.5	13	27	46	76	109
Moving mass per 10 mm stroke	0.9	1.3	2.8	4.6	8	10.5
DPDM-...-P-PA – pulling						
Product weight with 0 mm stroke	21	30	66	128	208	310
Additional weight per 10 mm stroke	6.3	7.5	13	22	33.5	51
Moving mass with 0 mm stroke	3	7	18	34.5	58	85
Moving mass per 10 mm stroke	0.6	1	2.3	4	6.5	9
DPDM-Q-...-P-PA – pulling, with protection against rotation						
Product weight with 0 mm stroke	25.5	36.5	75	140	226	334
Additional weight per 10 mm stroke	6.3	7.5	13	22	35	52.5
Moving mass with 0 mm stroke	7.5	13.5	27	46	76	109
Moving mass per 10 mm stroke	0.9	1.3	2.8	4.6	8	10.5

Datasheet

Dimensions

Download CAD data → www.festo.com

[1] Sensor slot for proximity switch:
 Ø 6 ... 20: SMT-10
 Ø 25/32: SMT/SME-8

Ø	AM	BG	D5 Ø	D6	E +0.3	EE	ET	H2
[mm]								
6	7	5	3.2	6	13	M5	4	10
10	10	5	3.2	6	15	M5	4.5	13
16	12	6	4.3	7.5	20	M5	4.5	19
20	16	7.5	5.5	10	26	M5	6	24
25	20	7.5	5.5	10	32	M5	7.5	30
32	20	9	6.6	11	40	G1/8	8.5	40

Ø	H3	KK	L2	LS -0.1	LX	MM Ø	PL	PR
[mm]								
6	7	M3	33	—	7	3	17.5	9.5
10	9	M4	35	—	7	4	19.5	9.5
16	13	M6	40	3	7	6	24.1	11
20	16	M8	46	4	9	8	26.5	11
25	20	M10x1.25	48	4.5	10	10	30	10
32	24	M10x1.25	48	4.5	11	12	27	11

Ø	RT	T1	T0	U1	U0	WH ¹⁾	ZJ	⌀1 h13	⌀2
[mm]									
6	M3	5	17	—	22	2	35	—	5.5
10	M3	5	19	—	24	2	37	—	7
16	M4	6	27	—	32	5	45	5	10
20	M5	8.2	33	6	40	6	52	7	13
25	M5	9.2	41	6	50	7	55	9	17
32	M6	12	52	9	62	8	56	10	17

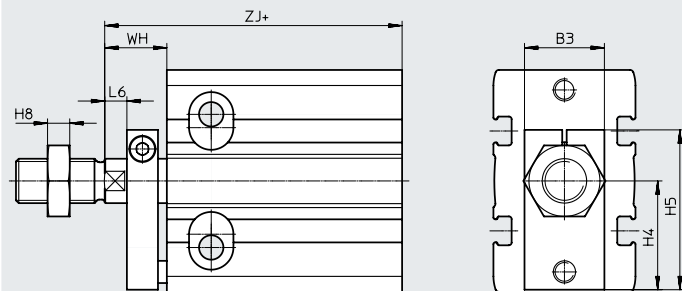
1) WH is measured when the piston rod is in the end position

Datasheet

Dimensions – Variants

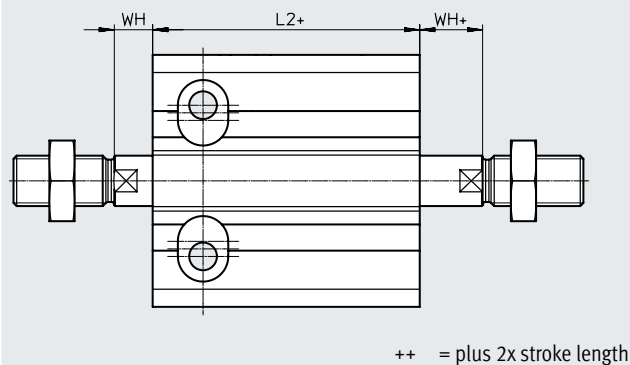
Download CAD data → www.festo.com/en/engineering

Q – with protection against rotation

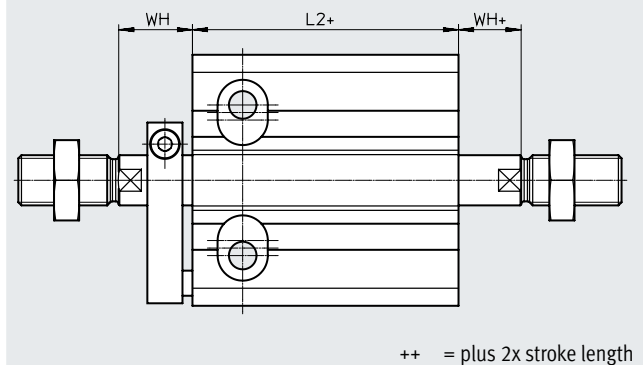


+ = plus stroke length

∅ [mm]	B3	H4	H5	H8	L6	WH	ZJ
6	11	10.5	17.5	1.8	–	9	42
10	14	11.5	19.5	2.2	–	9	44
16	15	15.5	24	3.2	3	12	52
20	15	19.5	29	4	4	13	59
25	18	24.5	36	5	5	14	62
32	20	30.5	45	5	6	15	63

T – Through piston rod
DPDM- ... -T

DPDM-Q- ... -T



∅ [mm]	L2	WH	WH+
6	33	2	2
10	35	2	2
16	40	5	5
20	46	6	6
25	48	7	7
32	48	8	8

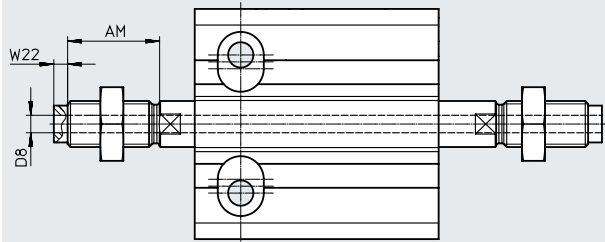
∅ [mm]	L2	WH	WH+
6	33	9	2
10	35	9	2
16	40	12	5
20	46	13	6
25	48	14	7
32	48	15	8

Datasheet

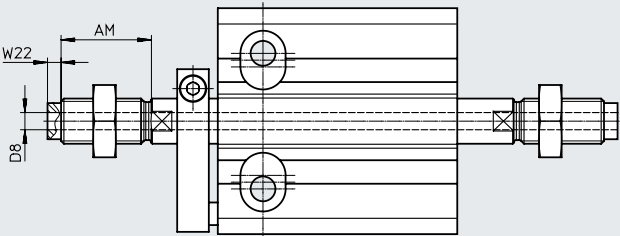
Dimensions – Variants

Download CAD data → www.festo.com/en/engineering

H – Through, hollow piston rod
DPDM- ... -H



DPDM-Q- ... -H



++

= plus 2x stroke length

∅ [mm]	AM	D8 ∅	W22
16	12	2.3	3
20	16	3.2	2
25	20	3.8	3
32	20	4.5	3

Datasheet

Ordering data – Double-acting

Type	Piston ø [mm]	Stroke [mm]	Without protection against torsion		With protection against rotation	
			Part no.	Type	Part no.	Type
	6	5	4830900	DPDM-6-5-PA	4830961	DPDM-Q-6-5-PA
		10	4830901	DPDM-6-10-PA	4830962	DPDM-Q-6-10-PA
		15	4830902	DPDM-6-15-PA	4830963	DPDM-Q-6-15-PA
		20	4830903	DPDM-6-20-PA	4830964	DPDM-Q-6-20-PA
		25	4830904	DPDM-6-25-PA	4830965	DPDM-Q-6-25-PA
		30	4830905	DPDM-6-30-PA	4830966	DPDM-Q-6-30-PA
	10	5	4831868	DPDM-10-5-PA	4832286	DPDM-Q-10-5-PA
		10	4831869	DPDM-10-10-PA	4832288	DPDM-Q-10-10-PA
		15	4831870	DPDM-10-15-PA	4832290	DPDM-Q-10-15-PA
		20	4831872	DPDM-10-20-PA	4832292	DPDM-Q-10-20-PA
		25	4831873	DPDM-10-25-PA	4832294	DPDM-Q-10-25-PA
		30	4831874	DPDM-10-30-PA	4832296	DPDM-Q-10-30-PA
	16	5	4833185	DPDM-16-5-PA	4834260	DPDM-Q-16-5-PA
		10	4833186	DPDM-16-10-PA	4834261	DPDM-Q-16-10-PA
		15	4833187	DPDM-16-15-PA	4834262	DPDM-Q-16-15-PA
		20	4833188	DPDM-16-20-PA	4834263	DPDM-Q-16-20-PA
		25	4833189	DPDM-16-25-PA	4834264	DPDM-Q-16-25-PA
		30	4833190	DPDM-16-30-PA	4834265	DPDM-Q-16-30-PA
		40	4833191	DPDM-16-40-PA	4834266	DPDM-Q-16-40-PA
		40	4833192	DPDM-16-50-PA	4834267	DPDM-Q-16-50-PA
	20	5	4840799	DPDM-20-5-PA	4840813	DPDM-Q-20-5-PA
		10	4840800	DPDM-20-10-PA	4840814	DPDM-Q-20-10-PA
		15	4840801	DPDM-20-15-PA	4840815	DPDM-Q-20-15-PA
		20	4840802	DPDM-20-20-PA	4840816	DPDM-Q-20-20-PA
		25	4840803	DPDM-20-25-PA	4840817	DPDM-Q-20-25-PA
		30	4840804	DPDM-20-30-PA	4840818	DPDM-Q-20-30-PA
		40	4840805	DPDM-20-40-PA	4840819	DPDM-Q-20-40-PA
		50	4840806	DPDM-20-50-PA	4840820	DPDM-Q-20-50-PA
	25	5	4829570	DPDM-25-5-PA	4840824	DPDM-Q-25-5-PA
		10	4829571	DPDM-25-10-PA	4840825	DPDM-Q-25-10-PA
		15	4829572	DPDM-25-15-PA	4840826	DPDM-Q-25-15-PA
		20	4829573	DPDM-25-20-PA	4840827	DPDM-Q-25-20-PA
		25	4829574	DPDM-25-25-PA	4840828	DPDM-Q-25-25-PA
		30	4829575	DPDM-25-30-PA	4840829	DPDM-Q-25-30-PA
		40	4829576	DPDM-25-40-PA	4840830	DPDM-Q-25-40-PA
		50	4829577	DPDM-25-50-PA	4840831	DPDM-Q-25-50-PA
	32	5	4828435	DPDM-32-5-PA	4828465	DPDM-Q-32-5-PA
		10	4828436	DPDM-32-10-PA	4828466	DPDM-Q-32-10-PA
		15	4828437	DPDM-32-15-PA	4828467	DPDM-Q-32-15-PA
		20	4828438	DPDM-32-20-PA	4828468	DPDM-Q-32-20-PA
		25	4828439	DPDM-32-25-PA	4828469	DPDM-Q-32-25-PA
		30	4828440	DPDM-32-30-PA	4828470	DPDM-Q-32-30-PA
		40	4828441	DPDM-32-40-PA	4828471	DPDM-Q-32-40-PA
		50	4828442	DPDM-32-50-PA	4828472	DPDM-Q-32-50-PA

Datasheet

Ordering data – Single-acting – Pushing						
Type	Piston ø [mm]	Stroke [mm]	Without protection against torsion		With protection against rotation	
			Part no.	Type	Part no.	Type
	6	5	4830909	DPDM-6-5-S-PA	4830970	DPDM-Q-6-5-S-PA
		10	4830910	DPDM-6-10-S-PA	4830971	DPDM-Q-6-10-S-PA
		15	4830911	DPDM-6-15-S-PA	4830972	DPDM-Q-6-15-S-PA
	10	5	4832116	DPDM-10-5-S-PA	4833119	DPDM-Q-10-5-S-PA
		10	4832117	DPDM-10-10-S-PA	4833120	DPDM-Q-10-10-S-PA
		15	4832118	DPDM-10-15-S-PA	4833121	DPDM-Q-10-15-S-PA
	16	5	4833272	DPDM-16-5-S-PA	4834367	DPDM-Q-16-5-S-PA
		10	4833273	DPDM-16-10-S-PA	4834368	DPDM-Q-16-10-S-PA
		15	4833274	DPDM-16-15-S-PA	4834369	DPDM-Q-16-15-S-PA
	20	5	4840807	DPDM-20-5-S-PA	4840821	DPDM-Q-20-5-S-PA
		10	4840808	DPDM-20-10-S-PA	4840822	DPDM-Q-20-10-S-PA
		15	4840809	DPDM-20-15-S-PA	4840823	DPDM-Q-20-15-S-PA
	25	5	4829799	DPDM-25-5-S-PA	4840835	DPDM-Q-25-5-S-PA
		10	4829800	DPDM-25-10-S-PA	4840836	DPDM-Q-25-10-S-PA
		15	4829801	DPDM-25-15-S-PA	4840837	DPDM-Q-25-15-S-PA
	32	5	4828428	DPDM-32-5-S-PA	4828490	DPDM-Q-32-5-S-PA
		10	4828429	DPDM-32-10-S-PA	4828491	DPDM-Q-32-10-S-PA
		15	4828430	DPDM-32-15-S-PA	4828492	DPDM-Q-32-15-S-PA

Ordering data – Single-acting – Pulling						
Type	Piston ø [mm]	Stroke [mm]	Without protection against torsion		With protection against rotation	
			Part no.	Type	Part no.	Type
	6	5	4830946	DPDM-6-5-P-PA	4830974	DPDM-Q-6-5-P-PA
		10	4830947	DPDM-6-10-P-PA	4830975	DPDM-Q-6-10-P-PA
		15	4830948	DPDM-6-15-P-PA	4830976	DPDM-Q-6-15-P-PA
	10	5	4832170	DPDM-10-5-P-PA	4833140	DPDM-Q-10-5-P-PA
		10	4832171	DPDM-10-10-P-PA	4833141	DPDM-Q-10-10-P-PA
		15	4832172	DPDM-10-15-P-PA	4833142	DPDM-Q-10-15-P-PA
	16	5	4833321	DPDM-16-5-P-PA	4834380	DPDM-Q-16-5-P-PA
		10	4833322	DPDM-16-10-P-PA	4834381	DPDM-Q-16-10-P-PA
		15	4833323	DPDM-16-15-P-PA	4834382	DPDM-Q-16-15-P-PA
	20	5	4840810	DPDM-20-5-P-PA	4840832	DPDM-Q-20-5-P-PA
		10	4840811	DPDM-20-10-P-PA	4840833	DPDM-Q-20-10-P-PA
		15	4840812	DPDM-20-15-P-PA	4840834	DPDM-Q-20-15-P-PA
	25	5	4829866	DPDM-25-5-P-PA	4840838	DPDM-Q-25-5-P-PA
		10	4829867	DPDM-25-10-P-PA	4840839	DPDM-Q-25-10-P-PA
		15	4829868	DPDM-25-15-P-PA	4840840	DPDM-Q-25-15-P-PA
	32	5	4829129	DPDM-32-5-P-PA	4828499	DPDM-Q-32-5-P-PA
		10	4829130	DPDM-32-10-P-PA	4828500	DPDM-Q-32-10-P-PA
		15	4829131	DPDM-32-15-P-PA	4828501	DPDM-Q-32-15-P-PA

Ordering data – Modular product system

Ordering data		6	10	16	20	25	32	Conditions	Code	Enter code
Module no.		4674228	4693549	4186566	4654766	4328892	4650681			
Function	Compact cylinder								DPDM	DPDM
Protection against rotation	None									
	With protection against rotation								-Q	
Piston Ø	[mm]	6	10	16	20	25	32		-...	
Stroke	[mm]	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30, 40, 50	5, 10, 15, 20, 25, 30, 40, 50	5, 10, 15, 20, 25, 30, 40, 50	5, 10, 15, 20, 25, 30, 40, 50		-...	
Function	Double-acting									
	Single-acting, pulling							[1]	-P	
	Single-acting, pushing							[1]	-S	
Piston rod type	On one side									
	–	Through, hollow piston rod						[2]	H	
	Through piston rod							[2]	T	
Cushioning	Elastic cushioning rings/plates at both ends								-P	-P
Position sensing	Via proximity switch								A	A
Temperature range	Standard									
	–	Heat-resistant seals up to max. 120 °C						[2] [3]	-T1	
Special material properties	None									
	Recommended for production plants for manufacturing Li-ion batteries							[4]	F1A	

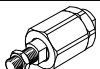
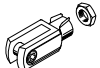
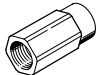
[1] P, S Only with stroke 5, 10, 15 mm

[2] H, T, T1 Not with P, S

[3] T1 Not with H, T

[4] F1A Not with P, S, T1

Accessories

Ordering data – Piston rod attachments				Datasheets → Internet: piston rod attachment				
Designation	For ø	Part no.	Type	Designation	For ø	Part no.	Type	
Rod eye SGS				Self-aligning rod coupler FK				
	10	9253	SGS-M4		10	6528	FK-M4	
	16	9254	SGS-M6		16	2061	FK-M6	
	20	9255	SGS-M8		20	2062	FK-M8	
	25	9261	SGS-M10x1.25		25	6140	FK-M10x1.25	
	32				32			
Rod clevis SG				Adapter AD				
	10	6532	SG-M4		10	–	–	
	16	3110	SG-M6		16	157328	AD-M6-M5	
	20	3111	SG-M8			157329	AD-M6-1/8	
	25	6144	SG-M10x1.25		20	157331	AD-M8-1/8	
	32	6144	SG-M10x1.25			157332	AD-M8-1/4	
					25	157333	AD-M10x1.25-1/8	
						157334	AD-M10x1.25-1/4	
					32	157333	AD-M10x1.25-1/8	
						157334	AD-M10x1.25-1/4	

Ordering data – One-way flow control valves					Datasheets → Internet: grl	
	For Ø	Connection		Weight [g]	Part no.	Type
		Thread	For tubing O.D.			
For exhaust air						
	6, 10, 16, 20, 25	M5	4	13	193138	GRLA-M5-QS-4-D
			6	13	193139	GRLA-M5-QS-6-D
			4	14	197577	GRLA-M5-QS-4-RS-D
			6	14	197578	GRLA-M5-QS-6-RS-D
	32	G1/8	3	22	193144	GRLA-1/8-QS-6-D
			4	22	193145	GRLA-1/8-QS-8-D
			6	23	197581	GRLA-1/8-QS-6-RS-D
			8	24	534337	GRLA-1/8-QS-8-RS-D

Ordering data – Push-in fittings							
	For Ø	Connection		Weight [g]	Part no.	Type	PU ¹⁾
		Thread	For tubing O.D.				
Standard					Datasheets → Internet: qs		
	6, 10, 16, 20, 25	M5	3	3.4	153302	QSM-M5-3	10
			4	3.2	153304	QSM-M5-4	
			6	4.5	153306	QSM-M5-6	
	6, 10, 16, 20, 25	M5	4	3.4	153333	QSML-M5-4	
			6	4.1	153335	QSML-M5-6	
	32	G1/8	6	8.2	153002	QS-1/8-6	
			8	14	153004	QS-1/8-8	
	32	G1/8	6	11	153046	QSL-1/8-6	
			8	14	153048	QSL-1/8-8	

Accessories

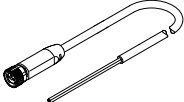
Proximity switches for piston diameter 6 ... 20

Ordering data – Proximity switch for C-slot, magneto-resistive							Datasheets → Internet: smt
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type	
N/O							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-core	2.5 m	551373	SMT-10M-PS-24V-E-2.5-L-OE	
		PNP	1x M8 plug, 3-pin	0.3 m	551375	SMT-10M-PS-24V-E-0.3-L-M8D	
		NPN	Cable, 3-core	2.5 m	551377	SMT-10M-NS-24V-E-2.5-L-OE	
		NPN	1x M8 plug, 3-pin	0.3 m	551379	SMT-10M-NS-24V-E-0.3-L-M8D	

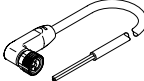
Proximity switches for piston diameter 25/32

Ordering data – Proximity switch for T-slot, magneto-resistive							Datasheets → Internet: smt
	Type of mounting	Switching out-put	Electrical connection	Cable length [m]	Part no.	Type	
N/O							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-core	2.5	574335	SMT-8M-A-PS-24V-E-2.5-OE	
			Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0.3-M8D	
		NPN	Cable, 3-core	2.5	574338	SMT-8M-A-NS-24V-E-2.5-OE	
			1x M8 plug, 3-pin	0.3	574339	SMT-8M-A-NS-24V-E-0.3-M8D	
N/C							
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-core	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE	

Connecting cables NEBA, straight, M8 connection

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cables NEBA, angled, M8 connection

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3

Accessories

For variant DPDM-...-T1, temperature range 0 ... +120 °C

Ordering data – One-way flow control valves

Datasheets → Internet: vfoh

	For Ø	Connection		Weight [g]	Part no.	Type
		Thread	For tubing O.D.			
	32	G1/8	4	23	578797	VFOH-LE-A-G18-Q4
			6	23	578798	VFOH-LE-A-G18-Q6

Ordering data – Push-in fittings

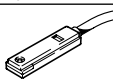
Datasheets → Internet: crqs

Stainless steel						
	For Ø	Connection		Weight [g]	Part no.	Type
		Thread	For tubing O.D.			
	6, 10, 16, 20, 25	M5	4	6.0	162860	CRQS-M5-4 ¹⁾
			6	8.4	162861	CRQS-M5-6 ¹⁾
	6, 10, 16, 20, 25	M5	4	12	162870	CRQSL-M5-4 ¹⁾
			6	18	162871	CRQSL-M5-6 ¹⁾
	32	R1/8	6	9.9	162862	CRQS-1/8-6
			8	12	162863	CRQS-1/8-8
	32	R1/8	6	19	162872	CRQSL-1/8-6
			8	26	162873	CRQSL-1/8-8

1) With sealing ring

Ordering data – Proximity switch for T-slot, magnetic reed

Datasheets → Internet: sme

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type
N/O						
	Heat resistant up to 120°C	Contacting, bipolar	Cable, 2-core	2.5	161756	SME-8-K-24-S6