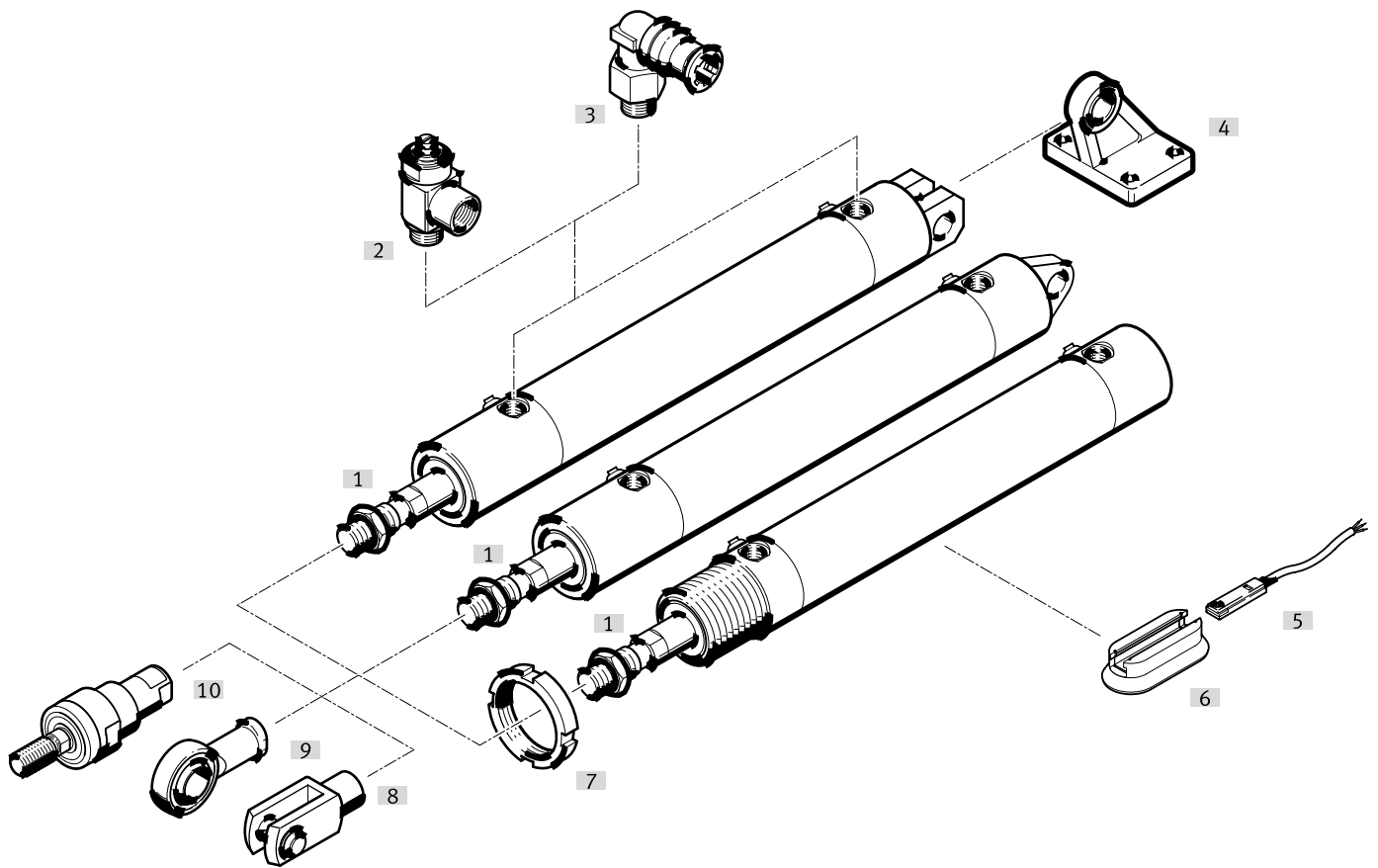


Peripherals overview



	Description	CRHD-MQ	CRHD-MC	CRHD-MS	→ Page/ Internet
[1]	Round cylinder CRHD	Double-acting, stainless steel			
[2]	One-way flow control valve CRGRLA	■	■	■	57
[3]	Push-in fittings CRQS	■	■	■	qs
[4]	Clevis foot CRLMC	–	■	–	54
[5]	Proximity switch CRSMT	■	■	■	56
[6]	Mounting kit CRSMB-8-3 2/100	■	■	■	57
[7]	Nut CR	■	–	–	55
[8]	Rod clevis CRSG	■	■	■	56
[9]	Rod eye CRSGS	■	■	■	56
[10]	Self-aligning rod coupler CRFK	■	■	■	56

Type codes

001	Series	
CRHD	Round cylinder, double-acting, stainless steel	

002	Piston diameter	
32	32	
40	40	
50	50	
63	63	
80	80	
100	100	

003	Stroke	
...	10 ... 500	

004	Cushioning	
PPV	Pneumatic cushioning, adjustable at both ends	

005	Position sensing	
A	For proximity sensor	

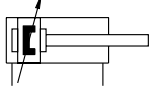
006	Type of end cap	
MQ	Without mounting threads	
MS	With strap	
MC	With clevis	

007	Temperature range	
	Standard	
S6	Heat-resistant seals max. 120 °C	

Round cylinders CRHD, stainless steel

Data sheet

PPV cushioning



- Diameter
32 ... 100 mm

- Stroke length
10 ... 500 mm

Spare parts service

Variant S6



The variant S6 is not suitable for direct contact with food products because of the seals and the grease used.



General technical data						
Piston \varnothing	32	40	50	63	80	100
Pneumatic connection	G1/8	G1/8	G1/4	G3/8	G3/8	G3/8
Piston rod thread	M10x1.25	M12x1.25	M16x1.5	M16x1.5	M20x1.5	M20x1.5
Design	Piston					
	Piston rod					
	Cylinder barrel					
Cushioning	Pneumatic cushioning, adjustable at both ends					
Cushioning length	17	19.5	21	21	31	31
Position sensing	Via proximity switch					
Type of mounting	With accessories					
Mounting position	Any					

Operating and environmental conditions	
Variant	CRHD S6
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)
Operating pressure	[MPa] 0.1 ... 1
	[bar] 1 ... 10
	[psi] 14.5 ... 145
Ambient temperature ¹⁾	[-20 ... +80] [0 ... +120]
Food-safe ²⁾	→ Supplementary material information
Corrosion resistance class CRC ³⁾	3

1) Note operating range of proximity switches

2) Additional information www.festo.com/sp → Certificates.

3) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

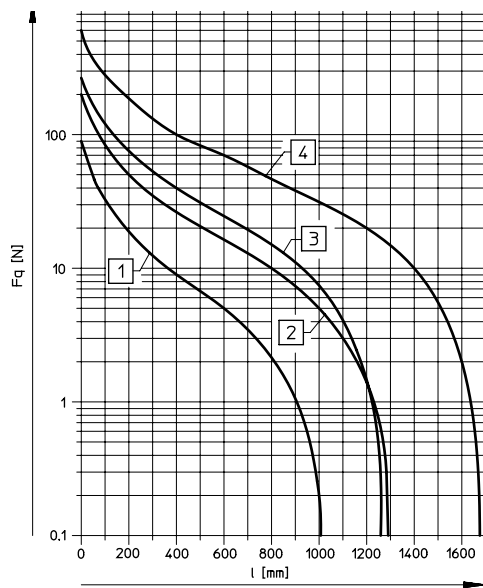
Forces [N]						
Piston \varnothing	32	40	50	63	80	100
Theoretical force at 0.6 MPa (6 bar, 87 psi), advancing	483	754	1178	1870	3016	4712
Theoretical force at 0.6 MPa (6 bar, 87 psi), retracting	415	633	990	1682	2721	4418

Weight [g]						
Piston \varnothing	32	40	50	63	80	100
Basic weight with 10 mm stroke	676	1196	1849	2977	5172	8472
Additional weight per 10 mm stroke	26	42	57	65	100	115
Moving mass with 10 mm stroke	106	198	340	398	717	968
Add. moving mass per 10 mm stroke	9	16	25	25	38	38

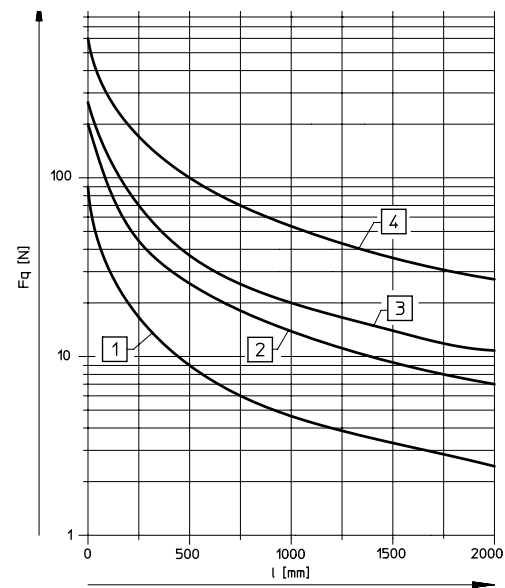
Data sheet

Permissible transverse force F_q as a function of stroke length l

Horizontal installation



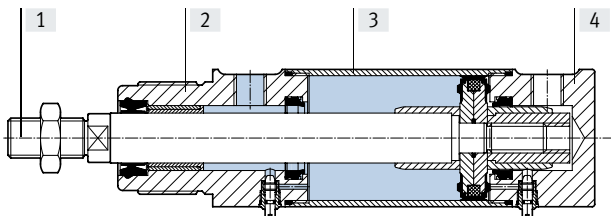
Vertical installation



- [1] $\varnothing 32$
- [2] $\varnothing 40$
- [3] $\varnothing 50, 63$
- [4] $\varnothing 80, 100$

Materials

Sectional view



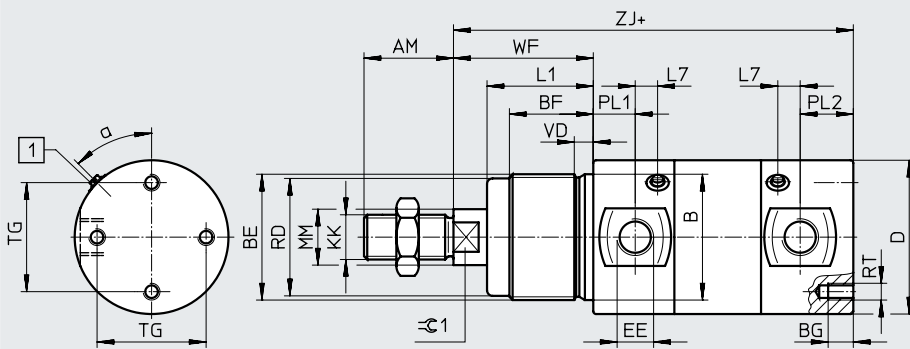
Round cylinders	Basic version	S6
[1] Piston rod	High-alloy stainless steel	
[2] Bearing cap	High-alloy stainless steel	
[3] Cylinder barrel	High-alloy stainless steel	
[4] End cap	High-alloy stainless steel	
- Seals	NBR, TPE-U (PUR) media seal (modified for resistance to hydrolysis and cleaning)	FPM

Data sheet

Dimensions

Download CAD data → www.festo.com

MQ – Bearing cap with male thread



[1] Adjusting screw for end-position cushioning
+ = plus stroke length

ø [mm]	α	AM	B ø h9	BE	BF	BG	D ø	EE	KK	L1
32	50°	22	30	M30x1.5	25	8	36	G1/8	M10x1.25	30
40	45°	24	38	M38x1.5	29	8	45	G1/8	M12x1.25	35
50	45°	32	45	M45x1.5	30	8	55	G1/4	M16x1.5	38
63	45°	32	45	M45x1.5	30	10	68	G3/8	M16x1.5	38
80	45°	40	50	M50x2	30	15	86	G3/8	M20x1.5	38
100	45°	40	50	M50x2	30	15	106	G3/8	M20x1.5	38

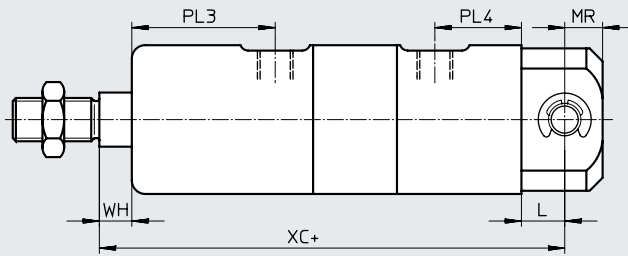
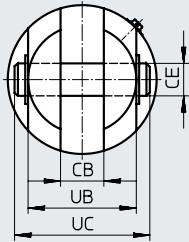
ø [mm]	L7	MM ø	RD ø	RT	PL1	PL2	TG	VD	WF	ZJ	⊖1
32	5	12	27	M5	13	21	22	7	38	120	10
40	8	16	35	M6	15	18	30	7	45	135	13
50	5	20	42	M6	15	19	39	6.25	50	143	17
63	8	20	42	M8	17	24	49	6.25	50	158	17
80	9	25	47	M10	18	31	65	7.5	50	174	22
100	13	25	47	M10	22	30	82	7.5	50	189	22

Data sheet

Dimensions

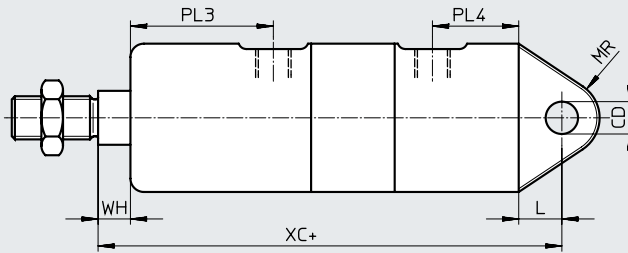
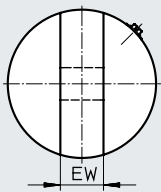
Download CAD data → www.festo.com

MC – End cap with clevis



+ = plus stroke length




MS – End cap with lug



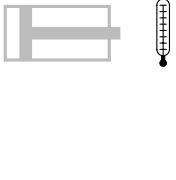

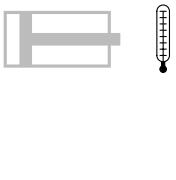
+ = plus stroke length

∅	CB	CD	CE	EW	L	MR	PL3	PL4	UB	UC	WH	XC
[mm]	+0.2/+0.1	∅ H9	∅ e8	-0.1/-0.2					-0.1/-0.2			
32	10	10	10	10	15	12	43	28	26	35	8	142
40	12	12	12	12	16	14	50	27	32	43	10	160
50	16	12	12	16	16	14	53	30	40	51	12	170
63	16	16	16	16	22	18	55	34	40	53	12	190
80	20	16	16	20	22	20	56	45	60	73	12	210
100	20	20	20	20	27	25	60	43.5	60	73	12	230

Data sheet

Ordering data				
Type	Piston ø [mm]	Stroke [mm]	Part no.	Type
MQ – Bearing cap with male thread				
	32	10 ... 500	195507	CRHD-32-...-PPV-A-MQ
	40		195508	CRHD-40-...-PPV-A-MQ
	50		195509	CRHD-50-...-PPV-A-MQ
	63		195510	CRHD-63-...-PPV-A-MQ
	80		195511	CRHD-80-...-PPV-A-MQ
	100		195512	CRHD-100-...-PPV-A-MQ
S6 – Heat-resistant up to 120°C				
	32	10 ... 500	195543	CRHD-32-...-PPV-A-MQ-S6
	40		195544	CRHD-40-...-PPV-A-MQ-S6
	50		195545	CRHD-50-...-PPV-A-MQ-S6
	63		195546	CRHD-63-...-PPV-A-MQ-S6
	80		195547	CRHD-80-...-PPV-A-MQ-S6
	100		195548	CRHD-100-...-PPV-A-MQ-S6
MC – End cap with clevis (pivot pin and lock included in the scope of delivery)				
	32	10 ... 500	195513	CRHD-32-...-PPV-A-MC
	40		195514	CRHD-40-...-PPV-A-MC
	50		195515	CRHD-50-...-PPV-A-MC
	63		195516	CRHD-63-...-PPV-A-MC
	80		195517	CRHD-80-...-PPV-A-MC
	100		195518	CRHD-100-...-PPV-A-MC

Data sheet

Ordering data				
Type	Piston ø [mm]	Stroke [mm]	Part no.	Type
S6 – Heat-resistant up to 120°C				
	32	10 ... 500	195549	CRHD-32-...-PPV-A-MC-S6
	40		195550	CRHD-40-...-PPV-A-MC-S6
	50		195551	CRHD-50-...-PPV-A-MC-S6
	63		195552	CRHD-63-...-PPV-A-MC-S6
	80		195553	CRHD-80-...-PPV-A-MC-S6
	100		195554	CRHD-100-...-PPV-A-MC-S6
MS – End cap with lug				
	32	10 ... 500	195519	CRHD-32-...-PPV-A-MS
	40		195520	CRHD-40-...-PPV-A-MS
	50		195521	CRHD-50-...-PPV-A-MS
	63		195522	CRHD-63-...-PPV-A-MS
	80		195523	CRHD-80-...-PPV-A-MS
	100		195524	CRHD-100-...-PPV-A-MS
S6 – Heat-resistant up to 120°C				
	32	10 ... 500	195555	CRHD-32-...-PPV-A-MS-S6
	40		195556	CRHD-40-...-PPV-A-MS-S6
	50		195557	CRHD-50-...-PPV-A-MS-S6
	63		195558	CRHD-63-...-PPV-A-MS-S6
	80		195559	CRHD-80-...-PPV-A-MS-S6
	100		195560	CRHD-100-...-PPV-A-MS-S6