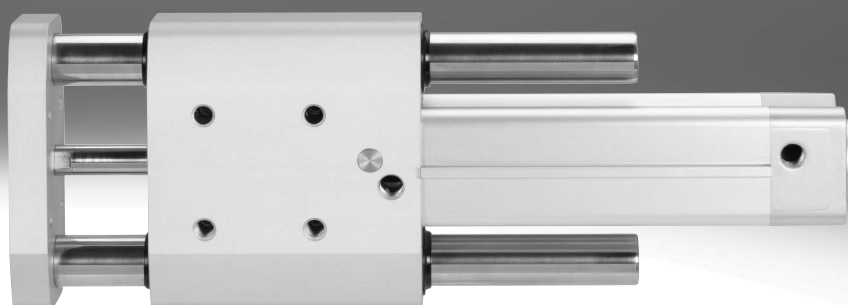


Guided drives DGRF-C, clean design

FESTO



Key features

At a glance

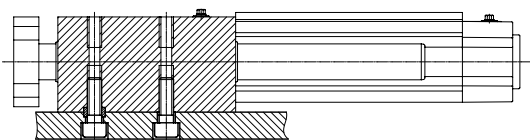
- The guided drive is used wherever hygiene, ease of cleaning and resistance are important, predominantly in dry and splash zones in the food and packaging industry.
- Corrosion-resistant in harsh environmental conditions
- Easy-to-clean design
- NSF H1-compliant lubrication
- Resistant to conventional cleaning agents
- For hygiene reasons, the threads on the end caps should be sealed with suitable plug screws
- With a dry-running seal (A3), the drive will continue to function reliably even if the lubricant has been washed away due to frequent cleaning.

Areas of application:

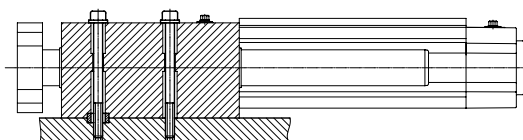
- Bottling systems in the beverage industry
 - Labelling and palletising machines
- Milk processing
 - Filling ice cream and yoghurt containers, etc.
- Meat processing
- Confectionery production
- Baked goods production
- Packaging industry
 - Food, pharmaceuticals, cosmetics, chemicals, beverages and tobacco

Mounting options

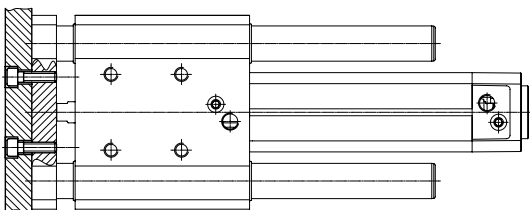
from underneath



from above

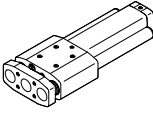
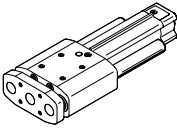


on the yoke plate



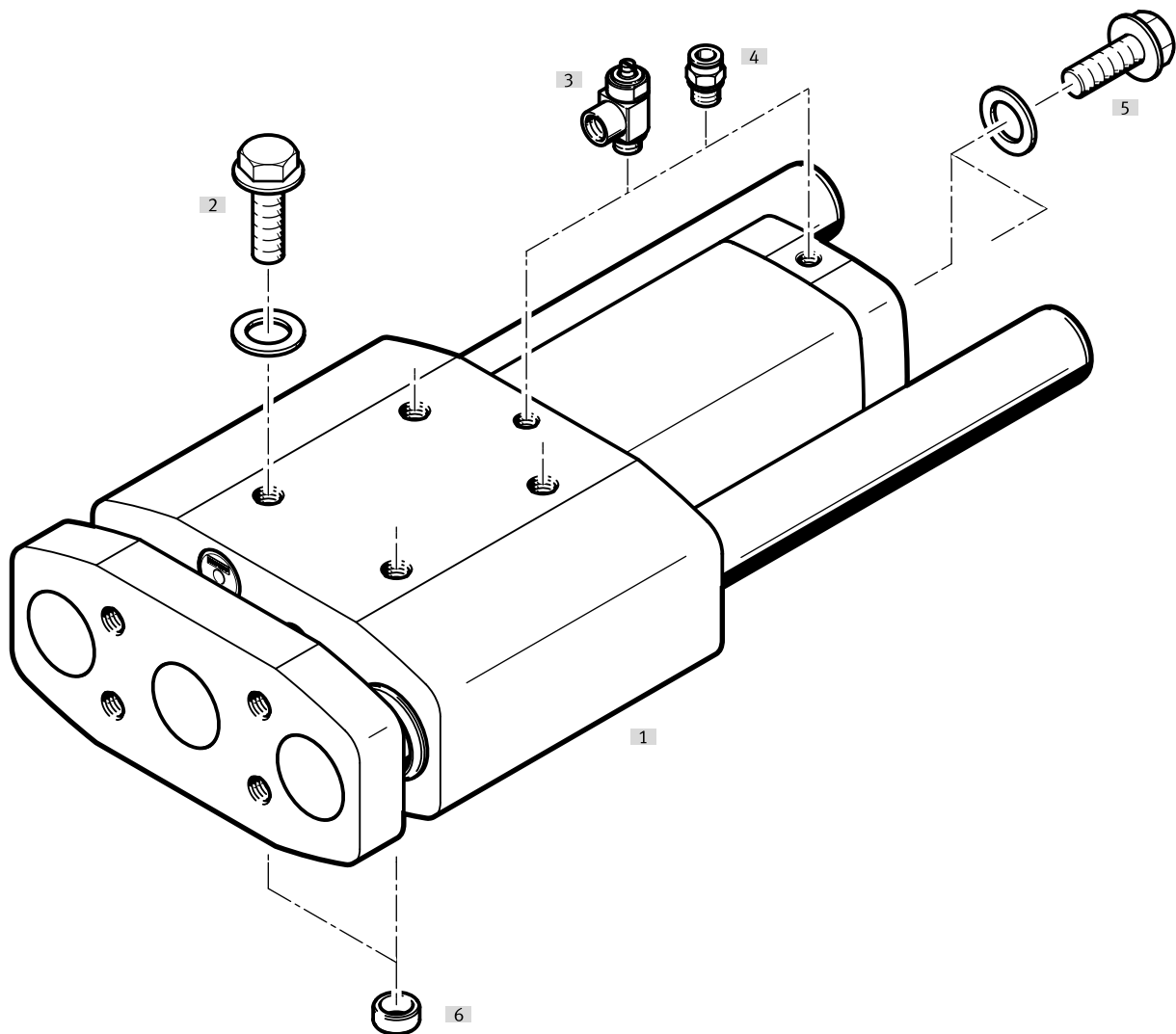
Product range overview

Product range overview

Function	Type	Piston Ø	Stroke	Cushioning			Position sensing A	Mounting rail R	Unlubricated operation A3
				P	PPV	PPS			
Double-acting	DGRF-C-GF								
		20, 25	10 ... 400	■	—	—	—	—	■
		32	10 ... 400	■	■	■	■	■	■
		40, 50, 63	10 ... 400	—	■	■	■	■	■

Peripherals overview

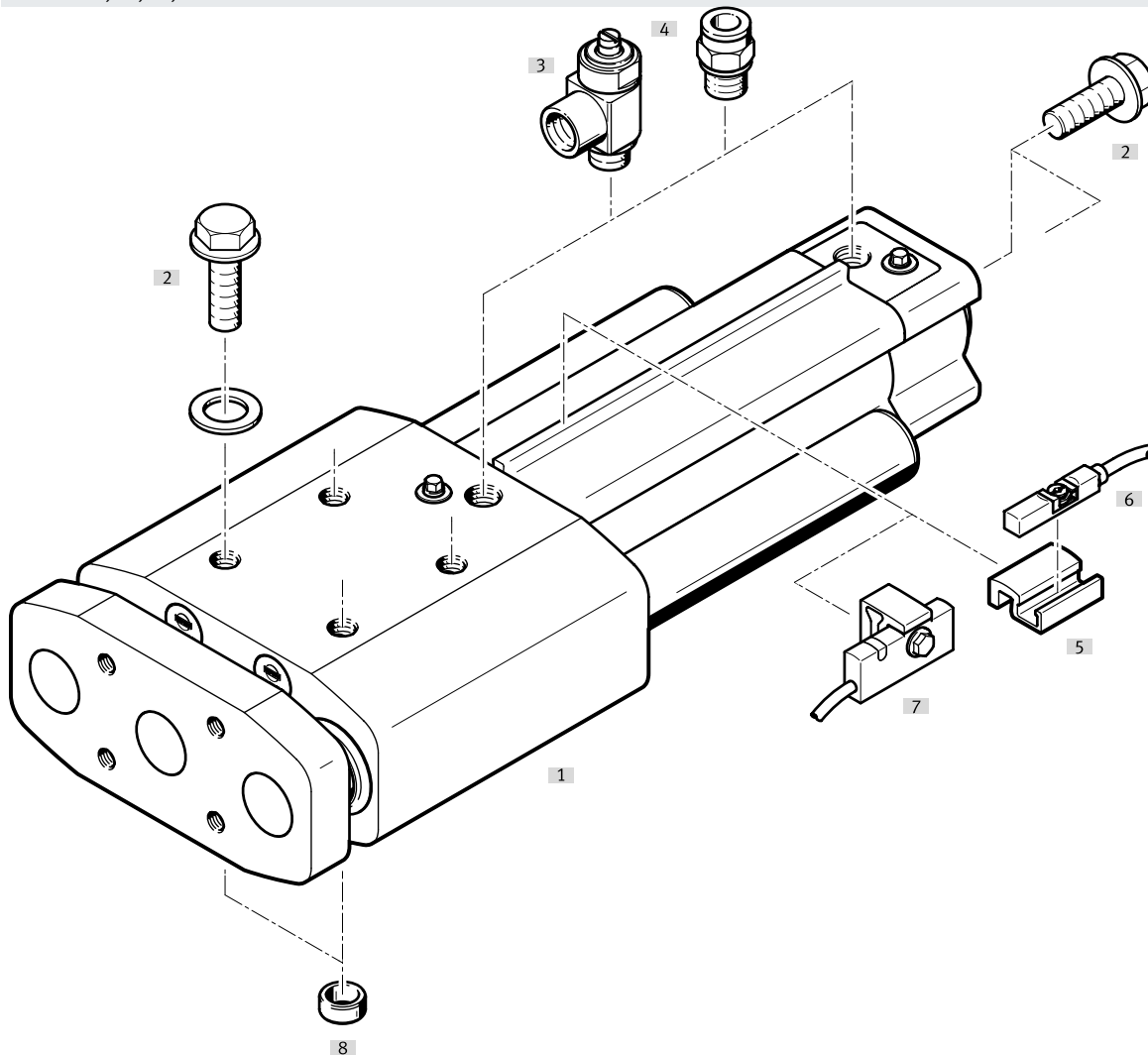
Piston Ø 20, 25



Accessories		Description	DGRF-...			→ Page/ Internet
			P	PPV	PPS	
[1]	Guided drive DGRF-C					
[2]	Plug screw DAMD	- For sealing unused mounting threads - Screws are not included in the scope of delivery of the drive - Cover plate is included in the scope of delivery of the screw	■	■	■	20
[3]	One-way flow control valve CRGRLA/VFOH	For regulating speed	■	■	■	19
[4]	Push-in fitting NPQH/CRQS/CRQSL/NPQP	For connecting tubing with standard O.D.	■	■	■	18
[5]	Plug screw DAMD	- For sealing unused mounting threads - Screws are not included in the scope of delivery of the drive	■	■	■	20
[6]	Centring sleeve ZBH	- For centring the guided drive - Two centring sleeves included in the scope of delivery	■	■	■	20

Peripherals overview

Piston Ø 32, 40, 50, 63



Accessories		Description	DGRF-...			→ Page/ Internet
			P	PPV	PPS	
[1]	Guided drive DGRF-C					
[2]	Plug screw DAMD	- For sealing unused mounting threads - Screws are not included in the scope of delivery of the drive - Cover plate is included in the scope of delivery of the screw	■	■	■	20
[3]	One-way flow control valve CRGRLA/VFOH	For regulating speed	■	■	■	19
[4]	Push-in fitting NPQH/CRQS/CRQSL/NPQP	For connecting tubing with standard O.D.	■	■	■	18
[5]	Mounting kit SMB-8-C	- For mounting the proximity switch CRSMT-8M - Mounting kit is fitted on the sensor mounting rail	—	■ ¹⁾	■	16
[6]	Proximity switch CRSMT-8M	For sensing the piston rod position	—	■ ¹⁾	■	16
[7]	Proximity switch SMT-C1	- For sensing the piston rod position - Proximity switch is mounted on the sensor mounting rail	■	■	■	16
[8]	Centring sleeve ZBH	- For centring the guided drive - Two centring sleeves included in the scope of delivery	■	■	■	20

1) Possible when ordering cylinders from 02/2014 (series E2).

Type codes

001	Series	
DGRF	Guided drive, double-acting, clean design	

002	Product version	
C	Easy-to-clean design	

003	Guide	
GF	Plain bearing	

004	Piston diameter	
20	20	
25	25	
32	32	
40	40	
50	50	
63	63	

005	Stroke	
...	10 ... 400	

006	Cushioning	
P	Elastic cushioning rings/plates on both sides	
PPS	Pneumatic cushioning, self-adjusting at both ends	
PPV	Pneumatic cushioning, adjustable at both ends	

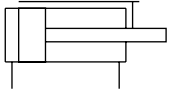
007	Position sensing	
	None	
A	For proximity sensor	

008	Sensor mounting, external	
	None	
R	Mounting rail for sensors	

009	Scraper variant	
	None	
A3	For unlubricated operation	

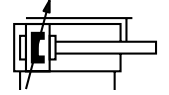
Datasheet

P cushioning



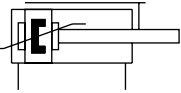
-  Diameter
20 ... 63 mm
-  Stroke length
10 ... 400 mm

Adjustable pneumatic cushioning PPV

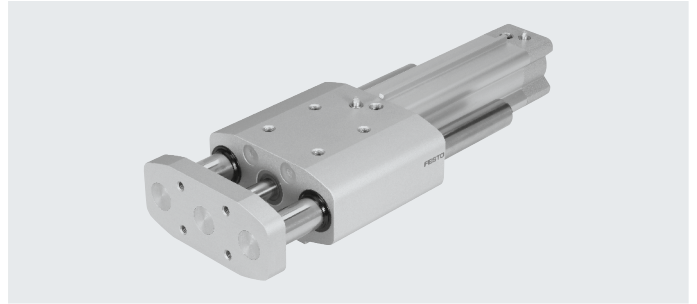


-  www.festo.com

PPS cushioning



-  Repair service



General technical data

Piston Ø	20	25	32	40	50	63	
Pneumatic connection	M5	M5	G1/8	G1/4	G1/4	G3/8	
Operating mode	Double-acting						
Design	Guide						
	Guide rods with yoke						
Guide	Plain-bearing guide						
Cushioning	P	Elastic cushioning rings at both ends			–		
	PPV	–		Pneumatic cushioning, adjustable at both ends			
	PPS	–		Pneumatic cushioning, self-adjusting at both ends			
Cushioning length	[mm]	–	20	20	22	22	
Position sensing	–		Via proximity switch				
Type of mounting	Via through-hole						
	With female thread						
Mounting position	Any						
Torsional backlash ¹⁾	[°]	0.13	0.11	0.10	0.09	0.07	0.06

1) Retracted state, without load

Operating and environmental conditions

Piston Ø		20	25	32		40	50	63
Variant				P	PPV/PPS			
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]	0.25 ... 1		0.2 ... 1	0.2 ... 1.2	0.2 ... 1.2		0.15 ... 1.2
	A3 [MPa]	0.2 ... 1			0.2 ... 1.2	0.15 ... 1.2		
Operating pressure	[bar]	2.5 ... 10		2 ... 10	2 ... 12	2 ... 12		1.5 ... 12
	A3 [bar]	2 ... 10			2 ... 12	1.5 ... 12		
Ambient temperature	[°C]	−20 ... +80						
Food safe ¹⁾		→ Supplementary material information						
Corrosion resistance class CRC ²⁾		3						

1) Additional information: www.festo.com/sp → Certificates.

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

Datasheet

Forces [N] and impact energy [J]						
Piston Ø	20	25	32	40	50	63
Theoretical force at 0.6 MPa (6 bar), advancing	189	295	483	754	1178	1870
Theoretical force at 0.6 MPa (6 bar), retracting	141	247	415	633	990	1682
Max. impact energy in the end positions with P cushioning	0.2	0.3	0.4	–	–	–

Permissible impact velocity:

$$v = \sqrt{\frac{2 \cdot E}{m_1 + m_2}}$$

Maximum permissible mass:

$$m_2 = \frac{2 \cdot E}{v^2} - m_1$$

$v_{perm.}$

E

m_1

m_2

Permissible impact velocity

Max. impact energy

Moving mass (drive)

Moving payload



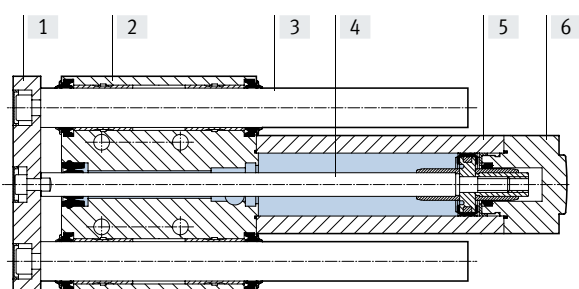
Note

These specifications represent the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Weight [g]						
Piston Ø	20	25	32	40	50	63
Variant			P	PPV/PPS		
Product weight with 0 mm stroke	885	1199	2090	2305	3000	6405
Additional weight per 10 mm stroke	52	55	80	78	90	143
Moving mass with 0 mm stroke	417	486	902	904	1065	2114
Additional mass per 10 mm stroke	38	38	58	58	65	102

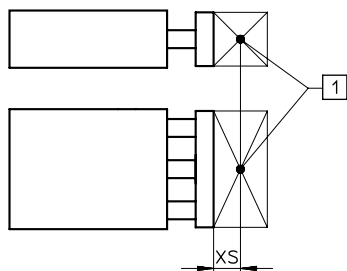
Materials

Sectional view



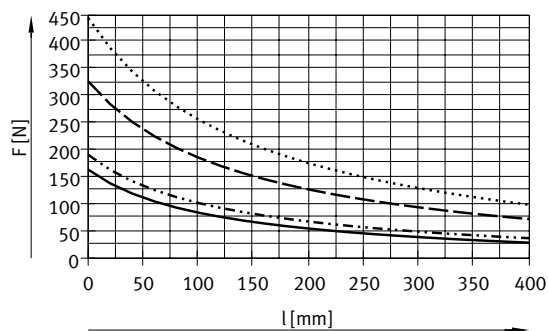
Guided drive	
[1] Yoke plate	Anodised wrought aluminium alloy
[2] Housing	Anodised wrought aluminium alloy
[3] Guiding rod	High-alloy stainless steel
[4] Piston rod	High-alloy stainless steel
[5] Cylinder barrel	Anodised wrought aluminium alloy
[6] Cover	
DGRF...-20/-25/-32-P	Anodised wrought aluminium alloy
DGRF...-32-PPV/-PPS	Coated die-cast aluminium
DGRF...-40/-50/-63	Coated die-cast aluminium
– Seal	
DGRF...	TPE-U (PUR) media seal (modified for resistance to hydrolysis and cleaning)
DGRF...-A3	PE
LABS (PWIS) conformity	VDMA24364-B2-L
Note on materials	RoHS-compliant

Datasheet

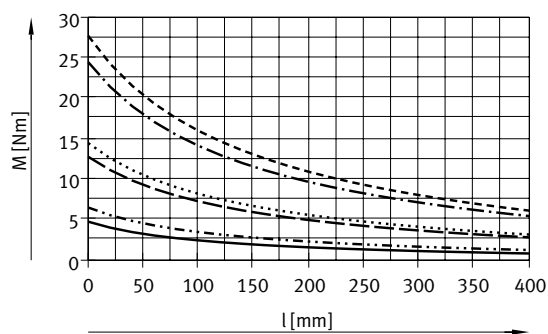
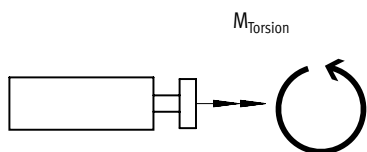
Max. payload F as a function of the stroke l 

- Load data is based on a distance from the centre of gravity of $XS = 50 \text{ mm}$
- Load data can be requested for larger distances

[1] Centre of gravity of payload



— Ø 20
 Ø 25
 --- Ø 32/40
 - · - · - Ø 50/63

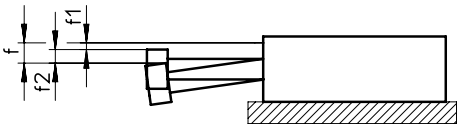
Max. torque load M as a function of stroke l 

— Ø 20
 Ø 25
 --- Ø 32
 - · - · - Ø 40
 - - - - - Ø 50
 - - - - - Ø 63

Datasheet

Deflection of the piston rod

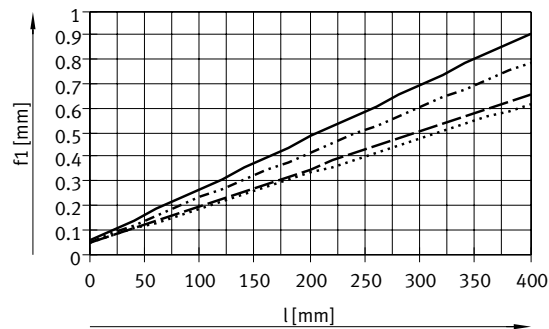
Deflection f1 due to bearing clearance as a function of stroke l



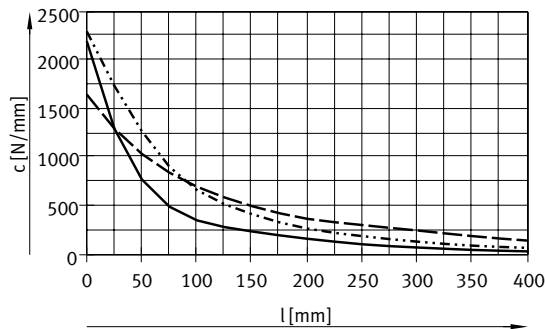
$f = f_1 + f_2$
f = Total deflection of the piston rod
f1 = Deflection due to bearing clearance
f2 = deflection due to transverse force

Deflection f1, due to bearing clearance as a function of stroke l

Deflection f2, due to payload F and rigidity c as a function of stroke l



— Ø 20
..... Ø 25
--- Ø 32/40
- · - · - Ø 50/63



— Ø 20/25
..... Ø 32/40
--- Ø 50/63
- · - · - Ø 20/25

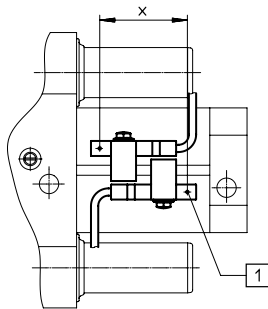
Datasheet

End-position sensing

With proximity switch SMT-C1

A minimum stroke is required to be able to sense both end positions at the cylinder.

- [1] Position of the proximity switch within the housing.

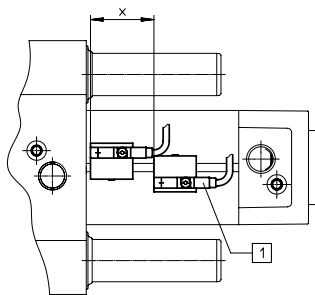


Piston Ø	32	40	50	63
Minimum stroke x [mm]	35	35	35	30

With mounting kit SMB-8-C and proximity switch CRSMT-8M

A minimum stroke is required to be able to sense both end positions at the cylinder.

- [1] Position of the proximity switch within the housing.



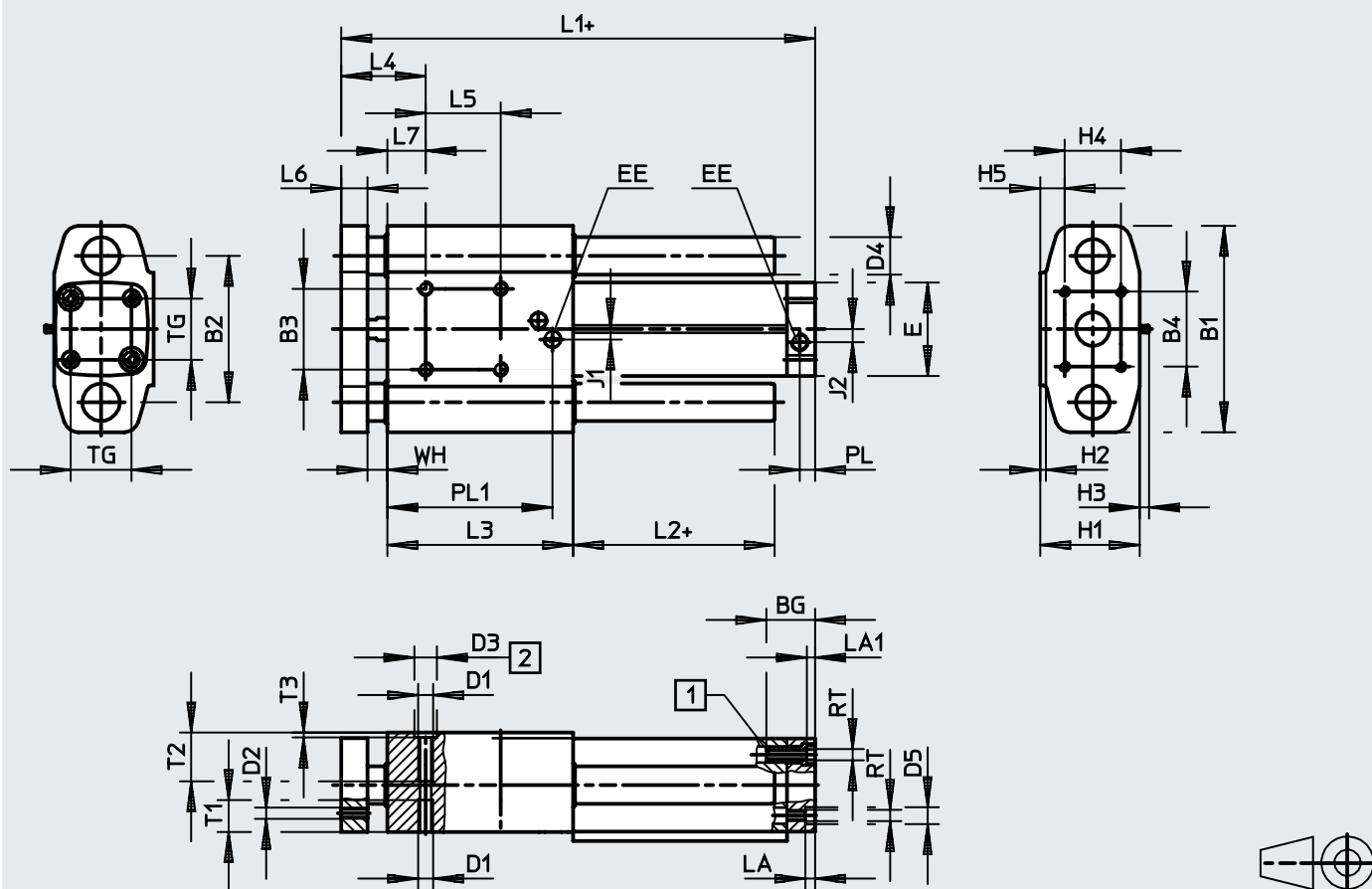
Piston Ø	32	40	50	63
Minimum stroke x [mm]	30	30	30	30

Datasheet

Dimensions

Download CAD data → www.festo.com

DGRF-...-P – elastic cushioning rings at both ends



+ = plus stroke length

[1] Socket head screw with female thread

[2] Centring holes for centring sleeve ZBH

Datasheet

∅ [mm]	BG	B1	B2	B3 ²⁾	B4	D1	D2	D3 ³⁾ ∅ H7	D4 ∅	D5 ∅ F9	E	EE
20	19.5	83	58	30	30	M6	M5	9	16	9	37	M5
25	19.5	95	68	35	40	M6	M6	9	16	9	42	M5
32	26	110	78	43	40	M8	M6	12	20	9	50	G1/8

∅ [mm]	H1	H2	H3 ¹⁾	H4	H5	J1	J2	L1	L2	L3	L4	L5
20	39	2	—	20	10.5	0	0	115 +1.4/-0.8	7	68	40 +1/-0.9	30
25	44	2	—	20	13	0	0	126 +1.4/-0.8	7	77	40 +1/-0.9	40
32	53	3	5	30	13	5.5	7	152.8 ±1.1	7.4	99	45 +0.9/-1	40

∅ [mm]	L6	L7	PW	LA1	PL	PL1	RT	T1	T2	T3	TG	WH
20	12	18	4.9	4.6	6	62	M5	13	20	2.1	22	10 +0.5/-0.7
25	12	18	4.9	4.6	6	71	M5	13	25	2.1	26	10 +0.5/-0.7
32	14	20.4	5.1	4.6	8.2	88	M6	17	26	2.6	32.5	10.7 +0.3/-0.9

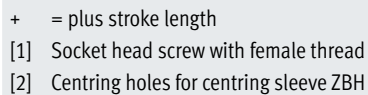
1) Only in combination with sensor mounting rail (DGRF-32-...-R)

2) Tolerance between the centring holes ±0.02 mm

3) Two centring sleeves included in the scope of delivery

DGRF...-PPV – Pneumatic cushioning, adjustable at both ends,
DGRF...-PPS – Pneumatic cushioning, self-adjusting at both ends

Download CAD data → www.festo.com



Datasheet

∅ [mm]	B ∅ d11	BG	B1	B2	B3 ²⁾	B4	D1	D2	D3 ³⁾ ∅ H7	D4 ∅	E	EE	H1	H2
32	30	16	110	78	43	40	M8	M6	12	20	45	G1/8	53	3
40	35	16	120	88	51	50	M8	M6	12	20	54	G1/4	61	3
50	40	17	148	110	64	60	M8	M8	12	25	64	G1/4	73	3
63	45	17	162	125	80	80	M10	M8	12	25	75	G3/8	84	3

∅ [mm]	H3 ¹⁾	H4	H5	H6	J1	J2	L1	L2	L3	L4	L5
32	2.5	30	13	5.6	5.3	5.3	177.6 +1.9/-1.2	7.4	99	45 +1.5/-1.1	40
40	3	30	17	5.6	4	4	183.5 +1.9/-1.3	7.5	99	45 +1.5/-1.1	40
50	2	40	18	7.5	5.5	5.5	193.5 +1.7/-1.3	7.7	105	50 +1.3/-1.2	40
63	2	40	23.5	9.3	6.3	6.3	207.3 +1.7/-1.3	7.5	105	50 +1.3/-1.2	40

∅ [mm]	L6	L7	LA1	PL	PL1	RT	T1	T2	T3	TG	VA	WH	⌀ 1
32	14	20.4	5.6	19.5	88	M6	17	26	2.6	32.5	4	10.6 +1/-0.9	4
40	14	20.5	5.6	22.5	83	M6	17	26	2.6	38	4	10.5 ±1/-1	4
50	16	22.7	6.1	22.5	89	M8	17	20	2.6	46.5	4	11.3 +0.8/-1	4
63	20	18.5	6.1	27.5	88	M8	17	24	2.6	56.5	4	11.5 +0.8/-1	4

1) Only in combination with sensor mounting rail (DGRF-...-R)

2) Tolerance between the centring holes ±0.02 mm

3) Two centring sleeves included in the scope of delivery

Ordering data – Modular product system

Ordering table									
Size	20	25	32	40	50	63	Condi- tions	Code	Enter code
Module no.	562216	562217	563366	562219	562220	562221			
Function	Guided drive							DGRF	DGRF
Product version	Easy-to-clean design							-C	-C
Guide	Plain-bearing guide							-GF	-GF
Piston Ø [mm]	20	25	32	40	50	63		-...	
Stroke [mm]	10 ... 400							-...	
Cushioning	Elastic cushioning rings at both ends			–				-P	
	–		Pneumatic cushioning, adjustable at both ends					-PPV	
			Pneumatic cushioning, self-adjusting at both ends					-PPS	
Position sensing	–		Via proximity switch				[1]	A	
Sensor mounting, external	–		Mounting rail for proximity switch				[1]	-R	
Scraper variant	Standard								
	For unlubricated operation							-A3	

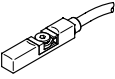
[1] A, R Always present with piston diameter 32 ... 63.

Accessories

Permissible with DGRF-...-PPV¹⁾/-PPS:

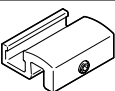
Ordering data – Proximity switch for T-slot, magneto-resistive

Datasheets → Internet: smt

	Type of mounting	Switching out- put	Electrical connection	Cable length [m]	Part no.	Type
N/O contact						
	Inserted in the slot from above, flush with the mounting kit	PNP	Cable, 3-core	5.0	574380	CRSMT-8M-PS-24V-K-5.0-OE
			Cable, 3-core	10.0	574381	CRSMT-8M-PS-24V-K-10.0-OE
			Plug M8x1, 3-pin	0.3	574383	CRSMT-8M-PS-24V-K-0.3-M8D
			Plug M12x1, 3-pin	0.3	574382	CRSMT-8M-PS-24V-K-0.3-M12

1) Possible when ordering cylinders from 02/2014 (series E2).

Ordering data – Mounting kit

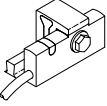
	Description	Part no.	Type
	For fitting the proximity switch CRSMT-8M on the mounting rail	1806790	SMB-8-C

Accessories

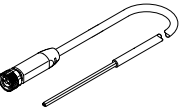
Permissible with DGRF-...-P/-PPV/-PPS:

Ordering data – Proximity switch for T-slot, magneto-resistive

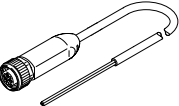
Datasheets → Internet: smt

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Type
N/O						
	Fitted on the mounting rail	PNP	Cable, 3-core	5.0	571339	SMT-C1-PS-24V-K-5.0-OE
			1x M8 plug, 3-pin	0.3	571342	SMT-C1-PS-24V-K-0.3-M8D
			1x M12 plug, 3-pin	0.3	571341	SMT-C1-PS-24V-K-0.3-M12

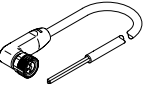
Connecting cables NEBA, straight, M8 connection

	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

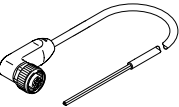
Connecting cables NEBA, straight, M12 connection

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3
				5 m	8078237	NEBA-M12G5-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

Connecting cables NEBA, angled, M12 connection

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3
				5 m	8078246	NEBA-M12W5-U-5-N-LE3

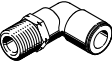
Accessories

Ordering data – Push-in fittings						Datasheets → Internet: qs				
	Connection Thread	Tubing O.D.	Material	Weight [g]	Part no.	Type	PU ²⁾			
With external hex										
	M5	4	High-alloy stainless steel	4.2	1857681	NPCK-C-D-M5-K4	1			
	G1/8	6		14.1	1366257	NPCK-C-D-G18-K6				
		8		13.4	1490383	NPCK-C-D-G18-K8				
		G1/4		8	28.85	1691701		NPCK-C-D-G14-K8		
	10			32.9	1489336	NPCK-C-D-G14-K10				
	G3/8	10		51.15	1489614	NPCK-C-D-G38-K10				
	M5	4	Nickel-plated brass, with sealing ring	5.8	578334	NPQH-D-M5-Q4-P10	10			
	G1/8	6		11.2	578335	NPQH-D-M5-Q6-P10				
		4		6.3	578338	NPQH-D-G18-Q4-P10				
		6		9.2	578339	NPQH-D-G18-Q6-P10				
	G1/4	8		11.9	578340	NPQH-D-G18-Q8-P10				
		6		13.1	578341	NPQH-D-G14-Q6-P10				
		8		14.1	578342	NPQH-D-G14-Q8-P10				
	G3/8	10		17.5	578343	NPQH-D-G14-Q10-P10				
		8		20.6	578345	NPQH-D-G38-Q8-P10				
		10		22.7	578346	NPQH-D-G38-Q10-P10				
	12	29.8		578347	NPQH-D-G38-Q12-P10					
		M5		4	Stainless steel	6.0		162860	CRQS-M5-4 ¹⁾	1
R1/8		6	8.4	162861		CRQS-M5-6 ¹⁾				
		4	8.7	132643		CRQS-1/8-4				
		6	9.9	162862		CRQS-1/8-6				
R1/4		8	12	162863		CRQS-1/8-8				
		6	18	132644		CRQS-1/4-6				
		8	18	162864		CRQS-1/4-8				
R3/8		10	22	162865		CRQS-1/4-10				
		10	29	162866		CRQS-3/8-10				
		12	37	162867		CRQS-3/8-12				
		R1/8	4	Polypropylene		2.5	133041	NPQP-D-R18-Q4-FD-P10	10	
		G1/8	6			3.0	133043	NPQP-D-R18-Q6-FD-P10		
	8		4.5		133045	NPQP-D-R18-Q8-FD-P10				
	R1/4		6		3.5	133044	NPQP-D-R14-Q6-FD-P10			
		8	4.5		133046	NPQP-D-R14-Q8-FD-P10				
		10	7.0		133047	NPQP-D-R14-Q10-FD-P10				
	R3/8	10	8.0		133048	NPQP-D-R38-Q10-FD-P10				
		12	12.0		133049	NPQP-D-R38-Q12-FD-P10				
		With internal hex								
	M5	4	Nickel-plated brass, with sealing ring	4.5	578370	NPQH-DK-M5-Q4-P10	10			
	G1/8	6		8.8	578371	NPQH-DK-M5-Q6-P10				
		4		6.2	578374	NPQH-DK-G18-Q4-P10				
		6		9.1	578375	NPQH-DK-G18-Q6-P10				
	G1/4	8		12.8	578376	NPQH-DK-G18-Q8-P10				
		10		14.4	578377	NPQH-DK-G14-Q8-P10				
	G3/8	12		18.6	578378	NPQH-DK-G14-Q10-P10				
	M5	4	Stainless steel	5	132328	CRQS-M5-4-I ¹⁾	1			
		6		7.7	132329	CRQS-M5-6-I ¹⁾				
	R1/8	6		8.4	132330	CRQS-1/8-6-I				
		8		12	132331	CRQS-1/8-8-I				
	R1/4	8		15	132332	CRQS-1/4-8-I				
		10		21	132333	CRQS-1/4-10-I				
	R3/8	10		24	132334	CRQS-3/8-10-I				

1) With sealing ring

2) Packaging unit

Accessories

Ordering data – Push-in L-fittings					Datasheets → Internet: qs		
	Connection Thread	Tubing O.D.	Material	Weight [g]	Part no.	Type	PU ²⁾
With external hex							
	M5	4	Nickel-plated brass, with sealing ring	8.9	578276	NPQH-L-M5-Q4-P10	10
		6		12.2	578277	NPQH-L-M5-Q6-P10	
	G1/8	4		16.3	578280	NPQH-L-G18-Q4-P10	
		6		19.3	578281	NPQH-L-G18-Q6-P10	
		8		22.2	578282	NPQH-L-G18-Q8-P10	
	G1/4	6		22.4	578283	NPQH-L-G14-Q6-P10	
		8		25.8	578284	NPQH-L-G14-Q8-P10	
		10		33.1	578285	NPQH-L-G14-Q10-P10	
		12		59.6	578286	NPQH-L-G14-Q12-P10	
	G3/8	8		36.7	578287	NPQH-L-G38-Q8-P10	
		10		38.2	578288	NPQH-L-G38-Q10-P10	
		12		58.2	578289	NPQH-L-G38-Q12-P10	
	M5	4	Stainless steel	12	162870	CRQSL-M5-4 ¹⁾	1
		6		18	162871	CRQSL-M5-6 ¹⁾	
	R1/8	4		14	132598	CRQSL-1/8-4	
		6		19	162872	CRQSL-1/8-6	
		8		26	162873	CRQSL-1/8-8	
	R1/4	6		26	132599	CRQSL-1/4-6	
		8		30	162874	CRQSL-1/4-8	
		10		42	162875	CRQSL-1/4-10	
	R3/8	10		49	162876	CRQSL-3/8-10	
		12		65	162877	CRQSL-3/8-12	
	R1/8	4		4.0	133051	NPQP-L-R18-Q4-FD-P10	10
		6		5.0	133053	NPQP-L-R18-Q6-FD-P10	
		8		7.0	133055	NPQP-L-R18-Q8-FD-P10	
	R1/4	6		5.5	133054	NPQP-L-R14-Q6-FD-P10	
		8		7.5	133056	NPQP-L-R14-Q8-FD-P10	
		10		12	133057	NPQP-L-R14-Q10-FD-P10	
	R3/8	10		13	133058	NPQP-L-R38-Q10-FD-P10	
		12		18	133059	NPQP-L-R38-Q12-FD-P10	

1) With sealing ring

2) Packaging unit

Ordering data – One-way flow control valves					Datasheets → Internet: crgla	
	Connection Thread	For push-in fitting	Material	Part no.	Type	PU ¹⁾
	M5	CRQS/CRQSL/CRQST, QS	Electropolished stainless steel casting	161403	CRGRLA-M5-B	1
	G1/8			161404	CRGRLA-1/8-B	
	G1/4			161405	CRGRLA-1/4-B	
	G3/8			161406	CRGRLA-3/8-B	
	G1/8	Push-in connector is integrated	Nickel-plated brass	578797	VFOH-LE-A-G18-Q4	1
				578798	VFOH-LE-A-G18-Q6	
				578799	VFOH-LE-A-G18-Q8	
	G1/4			578800	VFOH-LE-A-G14-Q8	
				578801	VFOH-LE-A-G14-Q10	

1) Packaging unit

Accessories

Ordering data – Plastic tubing, standard O.D.		Datasheets → Internet: tubing	
		Type	
	Approved for use in the food zone and resistant to hydrolysis	PUN-H	
	Good resistance to chemicals and hydrolysis	PLN	
	Pneumatic tubing with resistance to high temperatures and chemicals	PFAN	

Ordering data – Plug screws, corrosion-resistant					
	For Ø	Description	Part no.	Type	PJ ¹⁾
For mounting thread on the guide					
	20, 25	With cover plate	543715	DAMD-P-M6-12-R1	4
	32, 40, 50		543716	DAMD-P-M8-16-R1	
	63		543717	DAMD-P-M10-16-R1	
For mounting thread on the end cap					
	20, 25	With cover plate	543714	DAMD-P-M5-10-R1	4
	32 ²⁾		543715	DAMD-P-M6-12-R1	
	32 ³⁾ , 40	–	1355016	DAMD-PS-M6-12-R1	
	50, 63		650121	DAMD-PS-M8-16-R1	

1) Packaging unit

2) For drives with P cushioning

3) For drives with PPV/PPS cushioning

Ordering data – Centring sleeves		Datasheets → Internet: zbh	
	For Ø	Part no.	Type
	20, 25	8137184	ZBH-9-B
	32, 40, 50, 63	8137185	ZBH-12-B

1) Packaging unit