

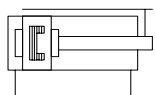
Guided drives DFM-...-RR-SA

Ø 12, 16, 20, 25 mm, stroke 10 to 100 mm

Cleanroom class ISO 4 (FS209E class 10)

Double acting guided drive with flexible cushioning rings in the end positions, contact-less sensing and recirculating ball bearing.

DFM-...-P-A-KF-RR-SA



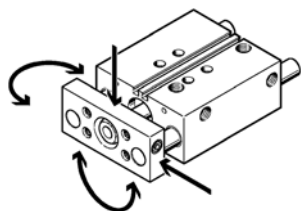
Order example:

Part no: 15083920

Type: DFM-20-100-P-A-KF-RR-SA

Guided drive Ø 20 mm, stroke 100 mm, with flexible cushioning rings in the end positions, contact-less sensing and recirculating ball bearing

Excellent protection against torsion, high resistance to torque and lateral forces



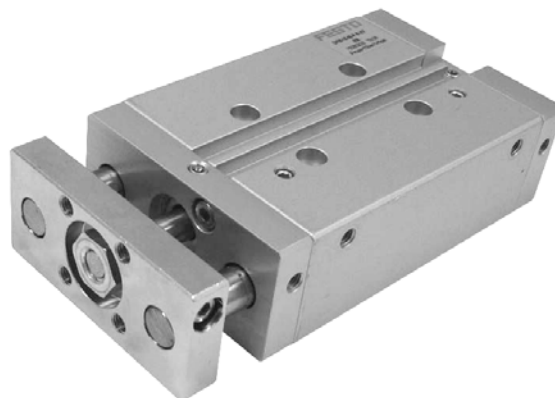
- With recirculating ball bearing guide
- For applications involving torque loads.
- Minimal space requirement
- Minimal assembly time
- Choice of supply ports
- Versatile mounting options
- Good protection against torsion
- Rigid construction
- Maintenance-free

Selection criteria:

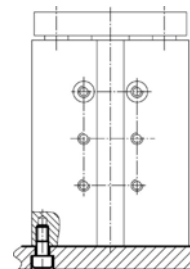
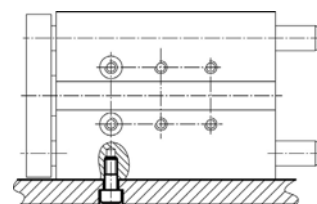
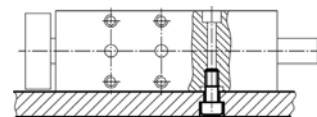
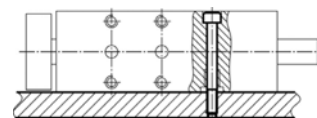
Refer to DK1 (Electronic catalogue) or Volume 1 of Pneumatic Drives catalogue.

Accessories

Proximity sensor for fitting in 8 mm slot (Page 40) SME-8...



Mounting options



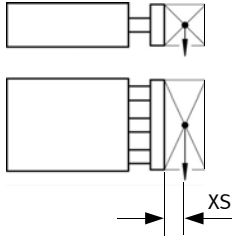
Type	Thrust at 6 bar [N]	Return force at 6 bar [N]	Connection	Max. speed [m/s]	Max. impact energy at ends [J]
DFM-12-...	68	51	M5	0.8	0.09
DFM-16-...	121	90	M5	0.8	0.10
DFM-20-...	188	141	M5	0.8	0.14
DFM-25-...	295	247	G1/8	0.8	0.35

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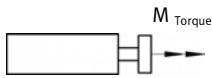
Cleanroom class ISO 4 (FS209E class 10)

Maximum effective load F [N]



Piston Ø [mm]	XS [mm]	Stroke [mm]							
		10	20	25	30	40	50	80	100
12	25	27	23	21	20	23	22	20	19
16	50	45	31	27	24	58	56	51	48
20	50	–	45	39	35	91	88	80	75
25	50	–	88	86	84	100	97	89	85

Permissible torque load M [Nm]



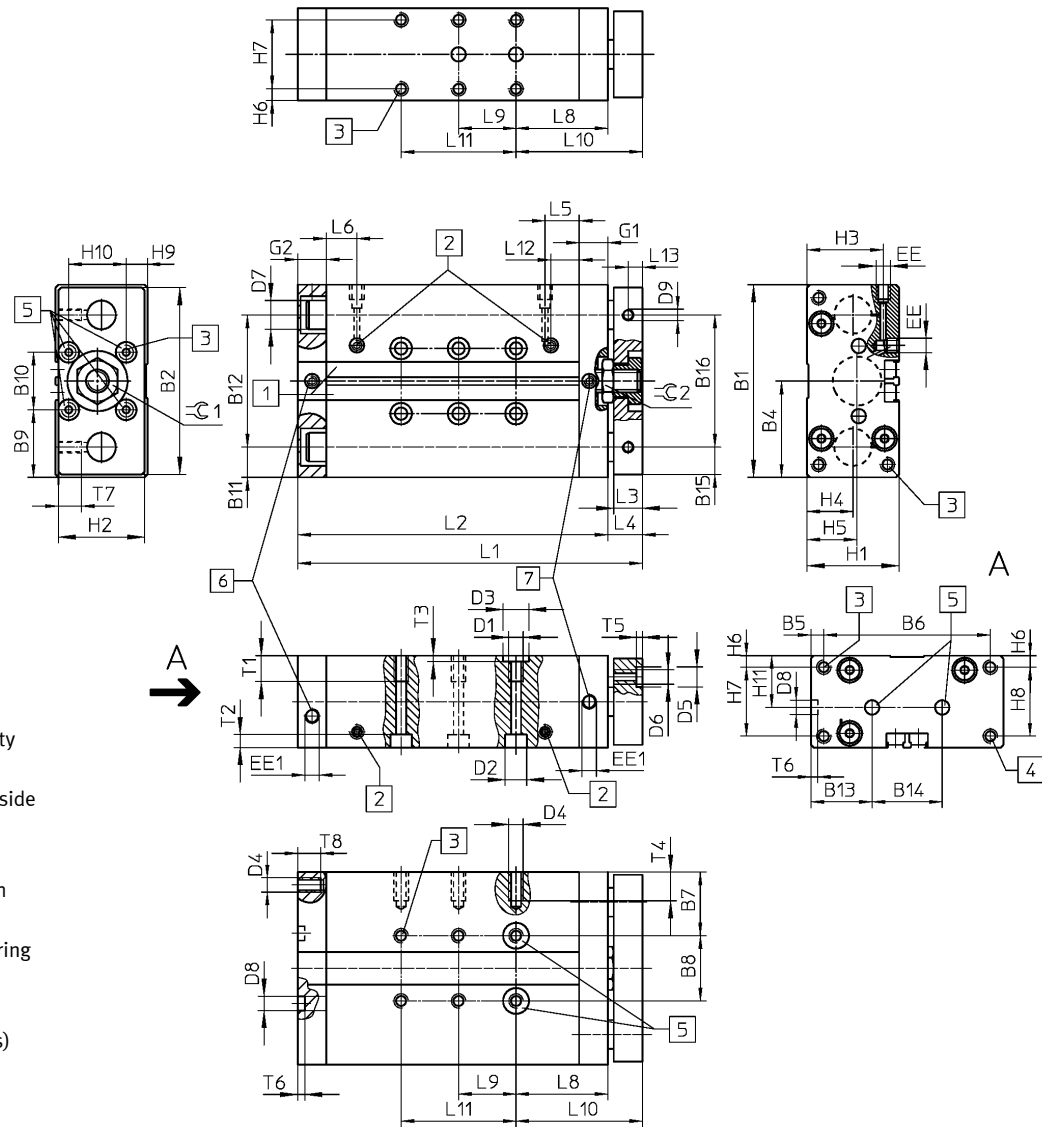
Piston Ø [mm]	XS [mm]	Stroke [mm]							
		10	20	25	30	40	50	80	100
12	25	0.55	0.47	0.44	0.42	0.47	0.45	0.41	0.38
16	50	1.03	0.71	0.62	0.55	1.34	1.29	1.18	1.12
20	50	–	1.3	1.13	1.01	2.64	2.56	2.34	2.23
25	50	–	3	2.92	2.85	3.4	3.3	3.02	2.89

Type	Part no.	Piston Ø [mm]	Stroke [mm]	Type	Part no.	Piston Ø [mm]	Stroke [mm]
DFM-12-10-P-A-KF-RR-SA	15083906	12	10	DFM-16-10-P-A-KF-RR-SA	15083921	16	10
DFM-12-20-P-A-KF-RR-SA	15083907	12	20	DFM-16-20-P-A-KF-RR-SA	15083922	16	20
DFM-12-25-P-A-KF-RR-SA	15083908	12	25	DFM-16-25-P-A-KF-RR-SA	15083923	16	25
DFM-12-30-P-A-KF-RR-SA	15083909	12	30	DFM-16-30-P-A-KF-RR-SA	15083924	16	30
DFM-12-40-P-A-KF-RR-SA	15083910	12	40	DFM-16-40-P-A-KF-RR-SA	15083925	16	40
DFM-12-50-P-A-KF-RR-SA	15083911	12	50	DFM-16-50-P-A-KF-RR-SA	15083926	16	50
DFM-12-80-P-A-KF-RR-SA	15083912	12	80	DFM-16-80-P-A-KF-RR-SA	15083927	16	80
DFM-12-100-P-A-KF-RR-SA	15083913	12	100	DFM-16-100-P-A-KF-RR-SA	15083928	16	100
DFM-20-20-P-A-KF-RR-SA	15083914	20	20	DFM-25-20-P-A-KF-RR-SA	15083929	25	20
DFM-20-25-P-A-KF-RR-SA	15083915	20	25	DFM-25-25-P-A-KF-RR-SA	15083930	25	25
DFM-20-30-P-A-KF-RR-SA	15083916	20	30	DFM-25-30-P-A-KF-RR-SA	15083931	25	30
DFM-20-40-P-A-KF-RR-SA	15083917	20	40	DFM-25-40-P-A-KF-RR-SA	15083932	25	40
DFM-20-50-P-A-KF-RR-SA	15083918	20	50	DFM-25-50-P-A-KF-RR-SA	15083933	25	50
DFM-20-80-P-A-KF-RR-SA	15083919	20	80	DFM-25-80-P-A-KF-RR-SA	15083934	25	80
DFM-20-100-P-A-KF-RR-SA	15083920	20	100	DFM-25-100-P-A-KF-RR-SA	15083935	25	100

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Cleanroom class ISO 4 (FS209E class 10)



- 1 Mounting slot for proximity sensor SME-/SMT-8
- 2 Supply port optionally at side or top
- 3 Mounting thread
- 4 Mounting thread (not with Dia. 12 ... 20)
- 5 Tolerance between centering holes ±0.02 mm (12 and 16 mm have no centering holes on the flange plates)
- 6 Exhaust port
- 7 Vacuum port

Ø	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	D1	D2	D3	D4
																	Ø	Ø H7	Ø H7	
12	60	58	42.4	30	4.5	51	20.5	19	20	20	9.5	41	19.5	21	8.5	41	M5	8	9	M4
16	67	65	45.9	33.5	4.5	58	22	23	23.5	20	10.5	46	21.3	24.4	-	-	M5	7.5	9	M5
20	83	81	53.6	41.5	6.5	70	26.5	30	26.5	30	12.5	58	26	31	-	-	M6	9	9	M5
25	95	93	70	47.5	15.5	64	30	35	27.5	40	13.5	68	29	37	-	-	M6	9	9	M6

Ø	D5	D6	D8	D9	EE	EE1	G1	G2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11
[mm]	Ø H7		Ø H7																
12	-	M4	5	M4	M5	M5	10	7	28	26	24	14	14	4	20	-	4	20	14
16	-	M5	5	-	M5	M5	10	10	32	30	27	16	17.4	4	24	-	7.4	20	16
20	9	M5	7	-	M5	M5	14	14	36	34	30	17	17	4.5	27	-	7	20	18
25	9	M6	7	-	G1/8	M5	14	12	44	42	35	19	23.9	4.5	35	35	12	20	22

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Ø [mm]	Stroke [mm]	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10 ± 0.1	L11	L12	T1	T2	T3	T4	T5	T6	T7	T8	≈C1	≈C2
12	10	76	63	10	13	11.4	9.5	-	31	-	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	20	86	73	10	13	11.4	9.5	-	31	-	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	25	91	78	10	13	11.4	9.5	-	31	20	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	30	96	83	10	13	11.4	9.5	-	31	20	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	40	106	93	10	13	11.4	9.5	6	31	20	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	50	116	103	10	13	11.4	9.5	6	31	40	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	80	146	133	10	13	11.4	9.5	6	31	40	44	-	11.4	9	9.4	2.1	8	-	1	8	5	14	11
	100	166	153	10	13	11.4	9.5	6	31	40	44	80	11.4	9	9.4	2.1	8	-	1	8	5	14	11
16	10	80	68	10	12	11.9	10.6	-	32	-	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	20	90	78	10	12	11.9	10.6	-	32	-	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	25	95	83	10	12	11.9	10.6	-	32	20	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	30	100	88	10	12	11.9	10.6	-	32	20	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	40	110	98	10	12	11.9	10.6	17	32	20	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	50	120	108	10	12	11.9	10.6	17	32	40	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	80	150	138	10	12	11.9	10.6	17	32	40	44	-	11.9	9	4.6	2.1	10	-	1	-	8	14	14
	100	170	158	10	12	11.9	10.6	17	32	40	44	80	11.9	9	4.6	2.1	10	-	1	-	8	14	14
20	20	103	89	12	14	14	10.5	-	40	-	54	-	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
	25	108	94	12	14	14	10.5	-	40	20	54	-	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
	30	113	99	12	14	14	10.5	-	40	20	54	-	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
	40	123	109	12	14	14	10.5	26	40	20	54	-	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
	50	133	119	12	14	14	10.5	26	40	40	54	-	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
	80	163	149	12	14	14	10.5	26	40	40	54	-	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
	100	183	169	12	14	14	10.5	26	40	40	54	80	14	12	5.7	2.1	10	2.1	1.6	-	10	17	17
25	20	105.6	91.6	12	14	17.5	9.5	13	40	-	54	-	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17
	25	110.6	96.6	12	14	17.5	9.5	13	40	20	54	-	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17
	30	115.6	101.6	12	14	17.5	9.5	13	40	20	54	-	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17
	40	125.6	111.6	12	14	17.5	9.5	23	40	20	54	-	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17
	50	135.6	121.6	12	14	17.5	9.5	23	40	40	54	-	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17
	80	165.6	151.6	12	14	17.5	9.5	23	40	40	54	-	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17
	100	185.6	171.6	12	14	17.5	9.5	23	40	40	54	80	15	14	5.7	2.1	12	2.1	1.6	-	10	17	17