Piston rod cylinder → Standard cylinders

Compact cylinder, ISO 21287, Series CCI

► Ø 16 - 100 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► Piston rod: non-rotating, with front plate, internal thread

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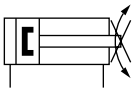

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Standards	ISO 21287
Compressed air connection	internal thread
Working pressure min./max.	1 bar / 10 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-20°C / +80°C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 mg/m³ - 5 mg/m³
Pressure for determining piston forces	6 bar
Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Seal	Polyurethane
Front plate	Aluminum
Nut for piston rod	Steel, galvanized
Scraper	Polyurethane

Technical Remarks

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.

Piston Ø		**[mm]**	**16**	**20**	**25**	**32**	**40**
Retracting piston force		[N]	91	137	216	364	560
Extracting piston force		[N]	106	164	259	422	665
Impact energy		[J]	0.11	0.15	0.2	0.4	0.52
Weight	0 mm stroke	[kg]	0.071	0.119	0.155	0.303	0.383
	+10 mm stroke	[kg]	0.019	0.026	0.03	0.05	0.06
Stroke max.		[mm]	300	300	300	300	300

Piston Ø		**[mm]**	**50**	**63**	**80**	**100**	
Retracting piston force		[N]	871	1478	2397	3886	
Extracting piston force		[N]	1035	1647	2656	4145	
Impact energy		[J]	0.64	0.75	0.75	1	
Weight	0 mm stroke	[kg]	0.626	0.907	1.462	2.641	
	+10 mm stroke	[kg]	0.09	0.107	0.136	0.188	
Stroke max.		[mm]	300	300	500	500	

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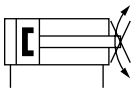
► Ø 16 - 100 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► Piston rod: non-rotating, with front plate, internal thread

	Piston Ø **Piston rod thread** **Ports** **Piston rod Ø**	**16** **M4** **M5** **8**	**20** **M6** **M5** **10**	**25** **M6** **M5** **10**	**32** **M8** **G 1/8** **12**	**40** **M8** **G 1/8** **12**
	Stroke 5	R422001262	R422001263	R422001264	R422001265	R422001266
	10	**R422001272**	**R422001273**	**R422001274**	**R422001275**	**R422001276**
	15	**R422001282**	**R422001283**	R422001284	**R422001285**	**R422001286**
	20	**R422001292**	**R422001293**	**R422001294**	**R422001295**	R422001296
	25	**R422001302**	**R422001303**	**R422001304**	**R422001305**	R422001306
	30	**R422001312**	**R422001313**	**R422001314**	**R422001315**	R422001316
	40	**R422001322**	**R422001323**	**R422001324**	**R422001325**	**R422001326**
	50	**R422001332**	**R422001333**	R422001334	**R422001335**	**R422001336**
	60	**R422001342**	**R422001343**	**R422001344**	R422001345	**R422001346**
	80	-	-	-	**R422001355**	R422001356
	100	-	-	-	**R422001365**	**R422001366**
	125	-	-	-	R422001375	R422001376
	150	-	-	-	**R422001385**	R422001386
	Piston Ø **Piston rod thread** **Ports** **Piston rod Ø**	**50** **M10** **G 1/8** **16**	**63** **M10** **G 1/8** **16**	**80** **M12** **G 1/8** **20**	**100** **M12** **G 1/8** **25**	
	Stroke 5	R422001267	R422001268	R422001269	R422001270	
	10	**R422001277**	**R422001278**	R422001279	R422001280	
	15	R422001287	R422001288	R422001289	R422001290	
	20	**R422001297**	R422001298	R422001299	R422001300	
	25	**R422001307**	R422001308	R422001309	R422001310	
	30	**R422001317**	R422001318	R422001319	R422001320	
	40	R422001327	R422001328	R422001329	R422001330	
	50	R422001337	**R422001338**	R422001339	R422001340	
	60	R422001347	R422001348	R422001349	R422001350	
	80	**R422001357**	R422001358	R422001359	R422001360	
	100	**R422001367**	R422001368	R422001369	R422001370	
	125	R422001377	R422001378	R422001379	R422001380	
	150	R422001387	R422001388	R422001389	R422001390	

Configurable product	
	This product is configurable. Please use our Internet configurator at http://www.rexrothpneumatics.com or contact the nearest Bosch Rexroth sales office.

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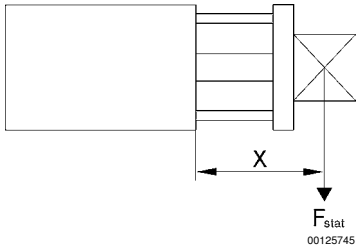
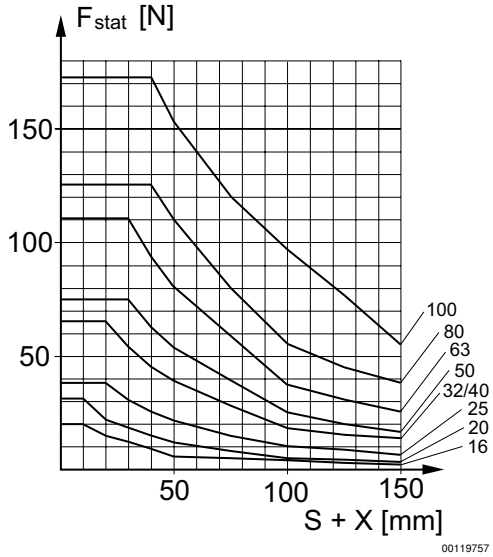
► Ø 16 - 100 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► Piston rod: non-rotating, with front plate, internal thread

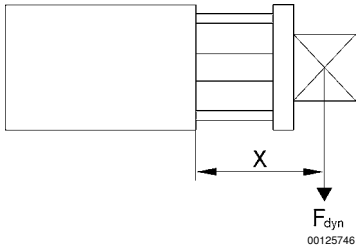
Maximum permissible lateral force, Static

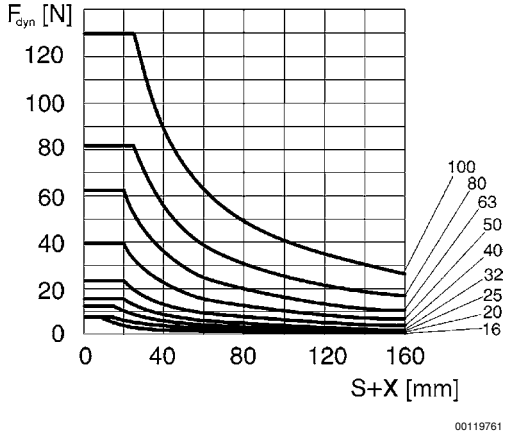




F stat. = static lateral force
X = spacing between force application point and cylinder cover
S = stroke

Maximum permissible lateral force, Dynamic



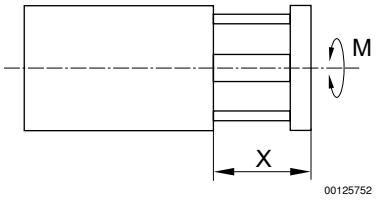


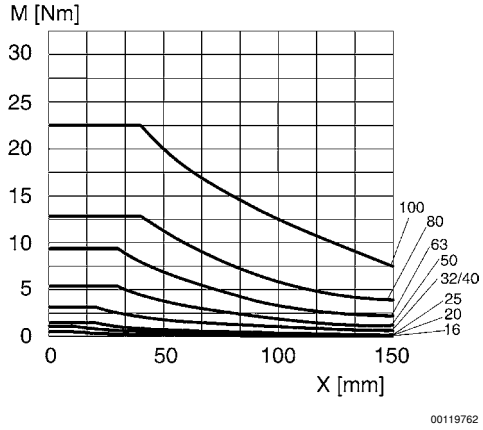
F dyn. = dynamic lateral force
X = spacing between force application point and cylinder cover
S = stroke

Compact cylinder, ISO 21287, Series CCI

► Ø 16 - 100 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► Piston rod: non-rotating, with front plate, internal thread

Max. permissible torque





M = max. permissible torque
X = spacing between torque contact surface and cylinder cover

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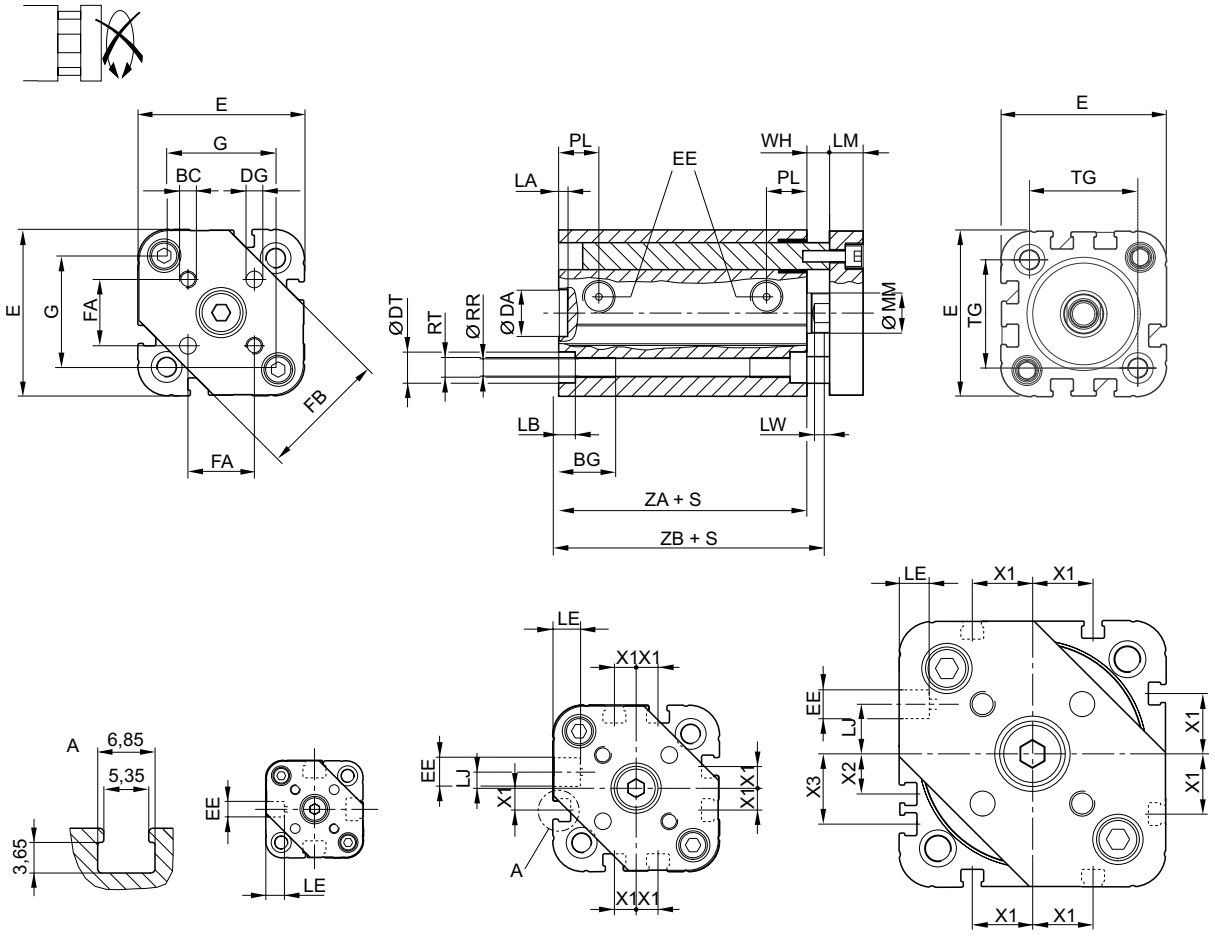
Ø 16 - 100 mm



S = stroke
G = distance between the guide rods
TG = distance between the mounting threads

Piston Ø	BC	BG	DA H11	DG H13	DT	E	EE	FA	FB	G	LA	LB
16	M3	15	10	3	6	29.3	M5	9,9 ±0,1	20	19	2.5	3.5
20	M4	15.5	12	4	7.5	36.3	M5	12 ±0,1	24	25	2.5	4.5
25	M5	15.5	12	5	8	40.3	M5	15,6 ±0,1	30	27	2.5	4.5
32	M5	17	14	5	9.2	50	G 1/8	19,8 ±0,1	38	34	2.5	5
40	M5	17	14	5	9.2	58	G 1/8	23,3 ±0,1	44	42	2.5	5
50	M6	17	18	6	11	68.3	G 1/8	29,7 ±0,1	54	49	2.5	5
63	M6	17	18	6	11	80	G 1/8	35,4 ±0,1	62	60	2.5	5
80	M8	20	23	8	15	96	G 1/8	46 ±0,1	80	72	3	5
100	M10	20	28	10	15	116	G 1/8	56,6 ±0,1	100	92	3	5

Piston Ø	LE	LJ	LM	LW	MM f8	PL	RR	RT 6H	TG	WH	X1	X2	X3
16	4.5	–	6	4	8	8	3.3	M4	18	4,8 ±0,9	–	–	–
20	4.5	4.5	8	4	10	11	4.2	M5	22	6,3 ±0,9	4.2	–	–
25	4.5	4	8	4	10	11	4.2	M5	26	5,6 ±0,9	4.5	–	–

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► Ø 16 - 100 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► Piston rod: non-rotating, with front plate, internal thread

Piston Ø	LE	LJ	LM	LW	MM f8	PL	RR	RT 6H	TG	WH	X1	X2	X3
32	7.5	4.85	10	4.5	12	12	5.1	M6	32.5	7,4 ±0,9	6.5	–	–
40	7.5	9.85	10	4.5	12	12	5.1	M6	38	7,4 ±0,9	11	–	–
50	7.5	12	12	6	16	12	6.7	M8	46.5	8,4 ±0,9	13	4	13
63	7.5	14.8	12	6	16	12	6.7	M8	56.5	8,5 ±0,9	18	12	21
80	7.5	22	14	7	20	14	8.5	M10	72	9,8 ±1	18	16.5	25.5
100	7.5	27	14	7	25	16.5	8.5	M10	89	9,8 ±1	20	20	29

Piston Ø	ZA	ZB											
16	34,9 ±0,1	39,7 ±0,8											
20	37,3 ±0,1	43,6 ±0,8											
25	39 ±0,1	44,5 ±0,9											
32	44 ±0,1	51,4 ±1											
40	45 ±0,1	52,4 ±1											
50	45,5 ±0,1	53,6 ±1											
63	49 ±0,1	57,4 ±1											
80	54,7 ±0,1	64,4 ±1											
100	67 ±0,1	76,7 ±1											