

Compact cylinder ISO 21287, Series CCI

- Ø 16 mm
- Ports M5
- Single-acting, extended without pressure
- with magnetic piston
- Cushioning elastic
- Piston rod Internal thread



Standards	ISO 21287
Compressed air connection	Internal thread
Ambient temperature min./max.	-20 ... 80 °C
Medium temperature min./max.	-20 ... 80 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Pressure for determining piston forces	6.3 bar

Technical data

	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Piston rod thread	M4	M6	M6	M8	M8	M10
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8
Piston rod Ø	8 mm	10 mm	10 mm	12 mm	12 mm	16 mm
Stroke 5	R422001492	R422001493	R422001494	R422001495	R422001496	R422001497
10	R422001502	R422001503	R422001504	R422001505	R422001506	R422001507
15	R422001512	R422001513	R422001514	R422001515	R422001516	R422001517
20	R422001522	R422001523	R422001524	R422001525	R422001526	R422001527
25	R422001532	R422001533	R422001534	R422001535	R422001536	R422001537

	63 mm	80 mm	100 mm
Piston Ø	63 mm	80 mm	100 mm
Piston rod thread	M10	M12	M12
Ports	G 1/8	G 1/8	G 1/8
Piston rod Ø	16 mm	20 mm	25 mm
Stroke 5	R422001498	R422001499	R422001500
10	R422001508	R422001509	R422001510
15	R422001518	R422001519	R422001520
20	R422001528	R422001529	R422001530
25	R422001538	R422001539	R422001540

Technical information

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 AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Retracting piston force	127 N	198 N	309 N	507 N
Extracting piston force	12 N	13 N	25 N	35 N
Impact energy	0,11 J	0,15 J	0,2 J	0,4 J
Weight 0 mm stroke	0,061 kg	0,101 kg	0,126 kg	0,237 kg
Weight +10 mm stroke	0,016 kg	0,023 kg	0,026 kg	0,043 kg
Working pressure min./max.	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar	2 ... 10 bar
Stroke max.	25 mm	25 mm	25 mm	25 mm

Piston Ø	40 mm	50 mm	63 mm	80 mm
Retracting piston force	792 N	1237 N	1964 N	3167 N
Extracting piston force	43 N	82 N	82 N	105 N
Impact energy	0,52 J	0,64 J	0,75 J	0,75 J
Weight 0 mm stroke	0,309 kg	0,462 kg	0,703 kg	1,142 kg
Weight +10 mm stroke	0,052 kg	0,07 kg	0,087 kg	0,116 kg
Working pressure min./max.	2 ... 10 bar	1,5 ... 10 bar	2 ... 10 bar	2 ... 10 bar
Stroke max.	25 mm	25 mm	25 mm	25 mm

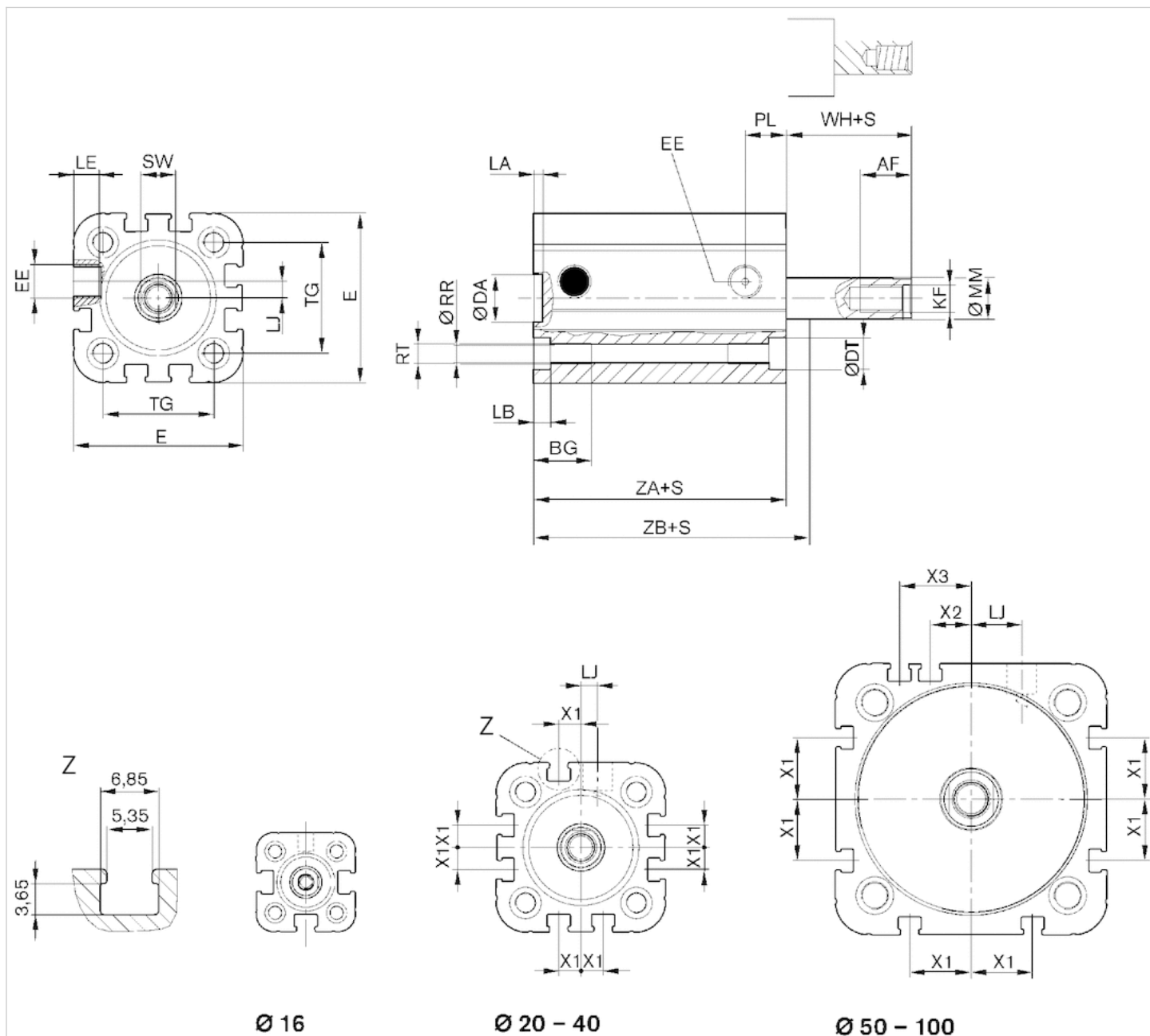
Piston Ø	100 mm
Retracting piston force	4948 N
Extracting piston force	215 N
Impact energy	1 J
Weight 0 mm stroke	2,199 kg
Weight +10 mm stroke	0,168 kg
Working pressure min./max.	2 ... 10 bar
Stroke max.	25 mm

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Seal	Polyurethane
Scraper	Polyurethane

Dimensions

Ø 16 mm ... 100 mm



S = stroke

Dimensions

Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW	TG
16 mm	10	15	10	6	29.3	M5	M4	2.5	3.5	4.5	0	8	8	3.3	M4	7	18
20 mm	12	15.5	12	7.5	36.3	M5	M6	2.5	4.5	4.5	4.5	10	10	4.2	M5	8	22
25 mm	12	15.5	12	8	40.3	M5	M6	2.5	4.5	4.5	4	10	10	4.2	M5	8	26
32 mm	12	17	14	8.6	50	G 1/8	M8	2.5	5	7.5	4.85	12	12	5.1	M6	10	32.5
40 mm	12	17	14	9.2	58	G 1/8	M8	2.5	5	7.5	9.85	12	12	5.1	M6	10	38
50 mm	16	17	18	11	68.3	G 1/8	M10	2.5	5	7.5	12	16	12	6.7	M8	13	46.5
63 mm	16	17	18	11	80	G 1/8	M10	2.5	5	7.5	14.8	16	12	6.7	M8	13	56.5

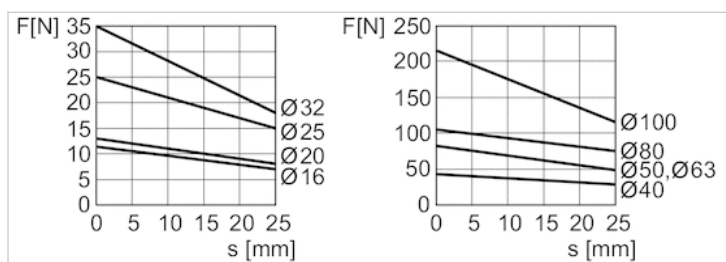
Piston Ø	AF	BG	DA H11	DT	E	EE	KF	LA	LB	LE	LJ	MM f8	PL	RR	RT 6H	SW	TG
80 mm	20	20	23	15	96	G 1/8	M12	3	5	7.5	22	20	14	8.5	M10	16	72
100 mm	20	20	28	15	116	G 1/8	M12	3	5	7.5	27	25	16.5	8.5	M10	21	89

Piston Ø	WH 1)	X1	X2	X3	ZA	ZB 1)
16 mm	4,8 ±0,9	-	-	-	34,9 ±0,1	39,7 ±0,8
20 mm	6,3 ±0,9	4.2	-	-	37,3 ±0,1	43,6 ±0,8
25 mm	5,6 ±0,9	4.5	-	-	39 ±0,1	44,5 ±0,9
32 mm	7,4 ±0,9	6.5	-	-	44 ±0,1	51,4 ±1
40 mm	7,4 ±0,9	11	-	-	45 ±0,1	52,4 ±1
50 mm	8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
63 mm	8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
80 mm	9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100 mm	9,8 ±1	20	20	29	67 ±0,1	76,7 ±1

1) With cylinders with a piston rod extension, dimensions "WH" and "ZB" are increased by the value of the piston rod extension.

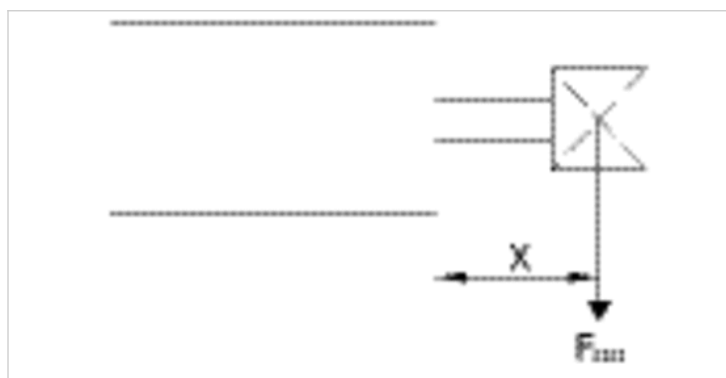
Diagrams

Extracting piston force



F = spring return force, s = return stroke

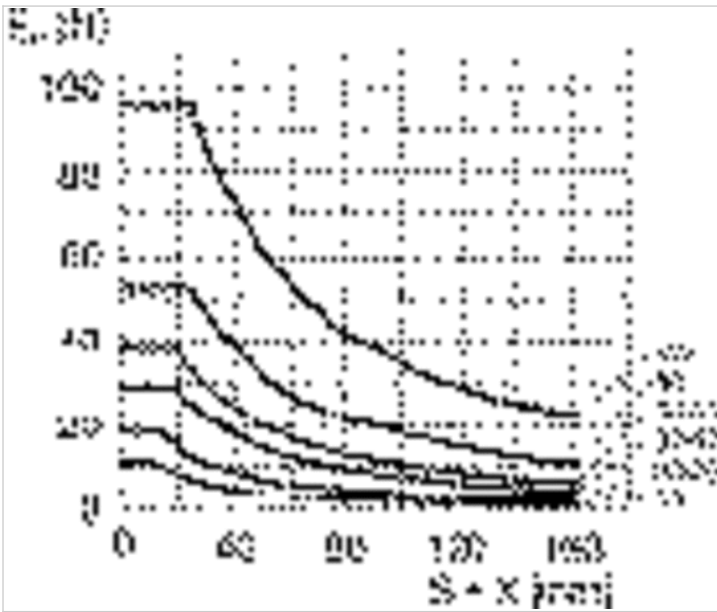
Maximum admissible lateral force static



F stat. = static lateral force

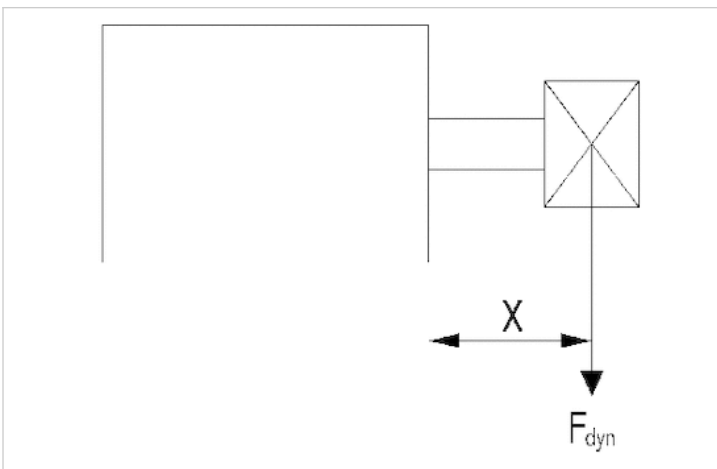
X = distance between force application point and cylinder cover

Maximum admissible lateral force static



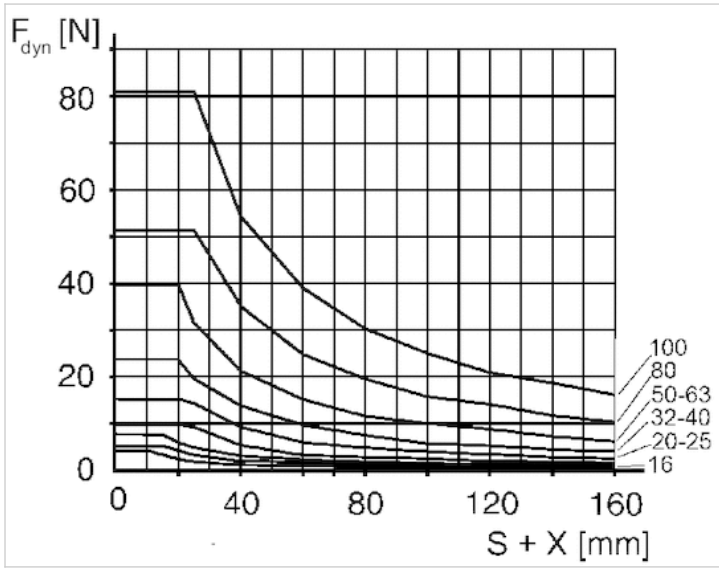
F stat. = static lateral force
 X = distance between force application point and cylinder cover
 S = stroke

Maximum admissible lateral force dynamic



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

Maximum admissible lateral force dynamic



F_{dyn.} = dynamic lateral force
X = distance between force application point and cylinder cover
S = stroke