UK Office
5 Caulside Drive
Antrim
BT41 2DU
United Kingdom
+44 (0) 28 9448 1808

European Office
Unit 6, Saint Anthony's Business Park
Dublin
D22 VW95
Ireland
+353 (0) 1 4373653

Compact cylinder ISO 21287, Series CCI

- Ø 16 mm
- Ports M5
- Single-acting, extended without pressure
- with magnetic piston
- Cushioning elastic
- Piston rod External 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/m³
Pressure for determining piston forces	6.3 bar

Technical data

Piston Ø Piston rod thread Ports Piston rod Ø	16 mm M6x1 M5 8 mm	20 mm M8x1,25 M5 10 mm	25 mm M8x1,25 M5 10 mm	32 mm M10x1,25 G 1/8 12 mm	40 mm M10x1,25 G 1/8 12 mm	50 mm M12x1,25 G 1/8 16 mm
Stroke 5	R422001542	R422001543	R422001544	R422001545	R422001546	R422001547
10	R422001552	R422001553	R422001554	R422001555	R422001556	R422001557
15	R422001562	R422001563	R422001564	R422001565	R422001566	R422001567
20	R422001572	R422001573	R422001574	R422001575	R422001576	R422001577
25	R422001582	R422001583	R422001584	R422001585	R422001586	R422001587

Piston Ø Piston rod thread Ports Piston rod Ø	63 mm M12x1,25 G 1/8 16 mm	80 mm M16x1,5 G 1/8 20 mm	100 mm M16x1,5 G 1/8 25 mm
Stroke 5	R422001548	R422001549	R422001550
10	R422001558	R422001559	R422001560
15	R422001568	R422001569	R422001570
20	R422001578	R422001579	R422001580
25	R422001588	R422001589	R422001590

Technical information

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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	0,066 kg	0,127 kg	0,152 kg	0,26 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	0,332 kg	0,501 kg	0,742 kg	1,223 kg
Weight +10 mm stroke	0,052 kg	0,07 kg	0,087 kg	0,116 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	100 mm
Retracting piston force	4948 N
Extracting piston force	215 N
Impact energy	1 J
Weight 0 mm stroke	2,28 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
Nut for cylinder mounting	Steel, galvanized
Scraper	Polyurethane

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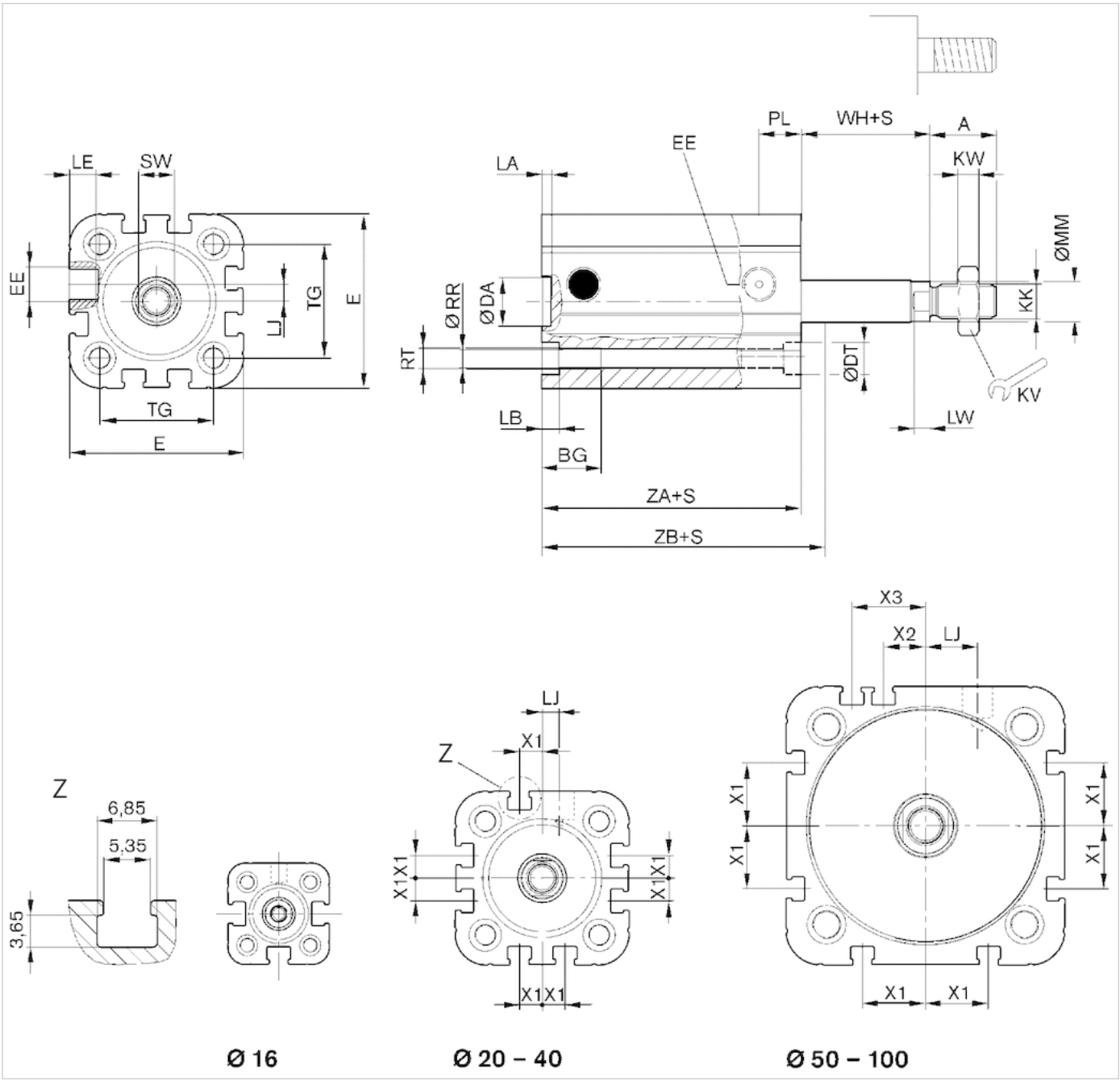
Dimensions

Ø 16 mm ... 100 mm



Dimensions

Piston Ø	A 1)	BG	DA H11	DT	E	EE	KK	KV	KW	LA	LB	LE	LJ	LW	MM f8	PL
16 mm	12	15	10	6	29.3	M5	M6	10	3	2.5	3.5	4.5	0	4	8	8
20 mm	16	15.5	12	7.5	36.3	M5	M8	13	4	2.5	4.5	4.5	4.5	4	10	10
25 mm	16	15.5	12	8	40.3	M5	M8	13	4	2.5	4.5	4.5	4	4	10	10
32 mm	19	17	14	8.6	50	G 1/8	M10x1,25	17	5	2.5	5	7.5	4.85	4.5	12	12
40 mm	19	17	14	9.2	58	G 1/8	M10x1,25	17	5	2.5	5	7.5	9.85	4.5	12	12
50 mm	22	17	18	11	68.3	G 1/8	M12x1,25	19	6	2.5	5	7.5	12	6	16	12
63 mm	22	17	18	11	80	G 1/8	M12x1,25	19	6	2.5	5	7.5	14.8	6	16	12
80 mm	28	20	23	15	96	G 1/8	M16x1,5	24	8	3	5	7.5	22	7	20	14

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Piston Ø	A 1)	BG	DA H11	DT	E	EE	KK	KV	KW	LA	LB	LE	LJ	LW	MM f8	PL
100 mm	28	20	28	15	116	G 1/8	M16x1,5	24	8	3	5	7.5	27	7	25	16.5

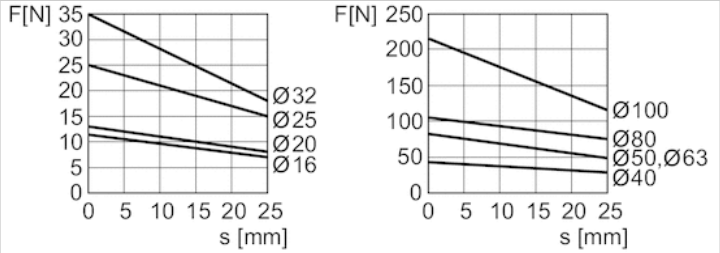
Piston Ø	RR	RT 6H	SW	TG	WH 2)	X1	X2	X3	ZA	ZB 2)
16 mm	3.3	M4	7	18	4,8 ±0,9	–	–	–	34,9 ±0,1	39,7 ±0,8
20 mm	4.2	M5	8	22	6,3 ±0,9	4.2	–	–	37,3 ±0,1	43,6 ±0,8
25 mm	4.2	M5	8	26	5,6 ±0,9	4.5	–	–	39 ±0,1	44,5 ±0,9
32 mm	5.1	M6	10	32.5	7,4 ±0,9	6.5	–	–	44 ±0,1	51,4 ±1
40 mm	5.1	M6	10	38	7,4 ±0,9	11	–	–	45 ±0,1	52,4 ±1
50 mm	6.7	M8	13	46.5	8,4 ±0,9	13	4	13	45,5 ±0,1	53,6 ±1
63 mm	6.7	M8	13	56.5	8,5 ±0,9	18	12	21	49 ±0,1	57,4 ±1
80 mm	8.5	M10	16	72	9,8 ±1	18	16.5	25.5	54,7 ±0,1	64,4 ±1
100 mm	8.5	M10	21	89	9,8 ±1	20	20	29	67 ±0,1	76,7 ±1

1) With cylinders with external thread extension, dimension "A" is increased by the value of the thread extension.

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

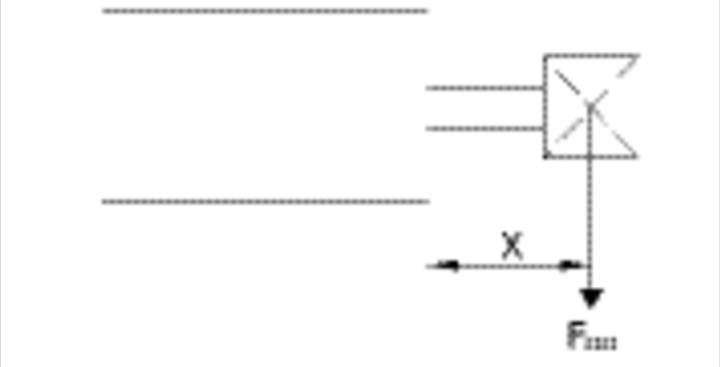
Diagrams

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

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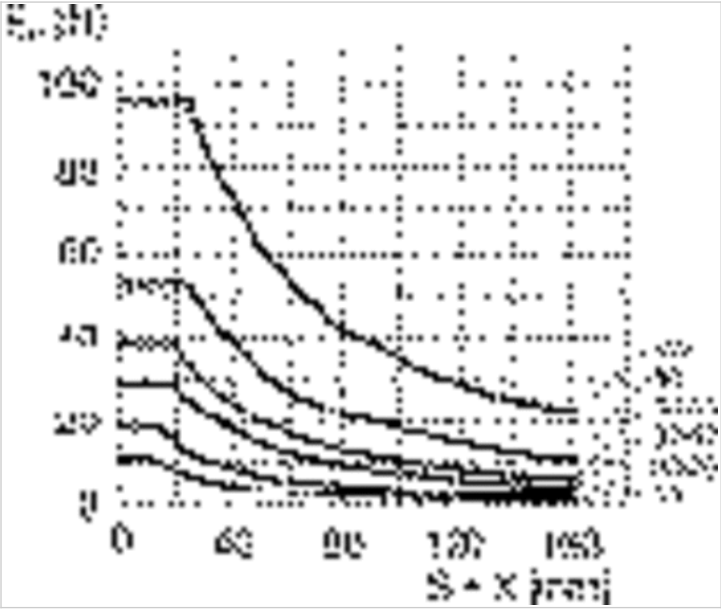
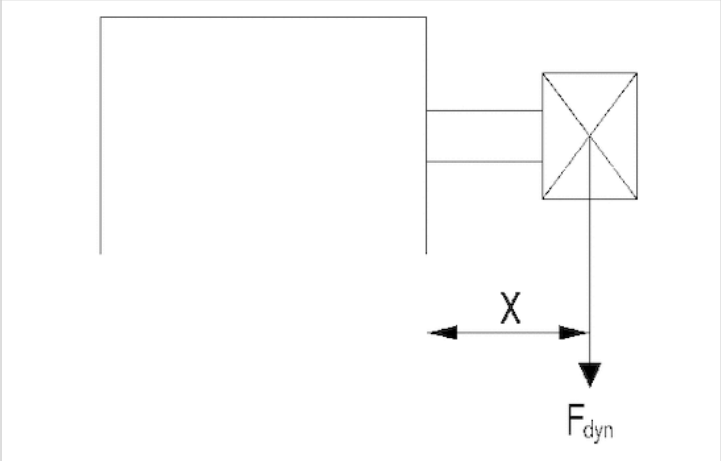
Maximum admissible lateral force static



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
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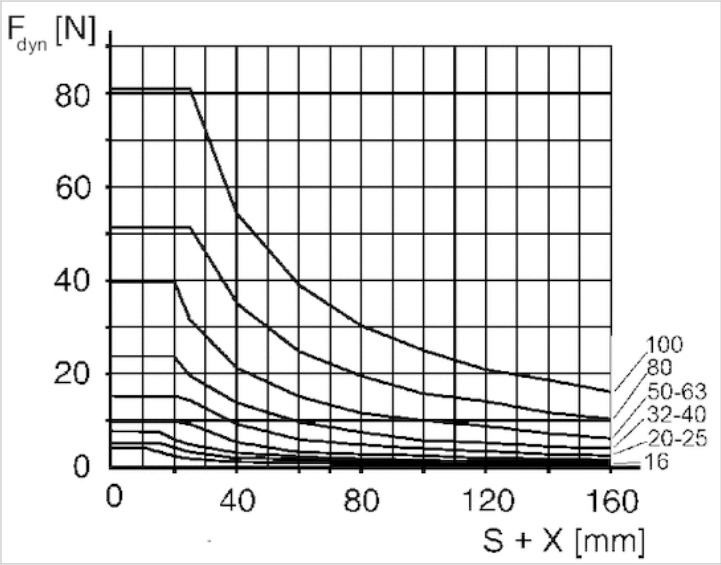
Maximum admissible lateral force dynamic



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