

Compact cylinder ISO 21287, Series CCI

- Ø 16-100 mm
- Ports M5, G 1/8
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod Internal thread
- ATEX optional



Standards	ISO 21287
Compressed air connection	Internal thread
Working pressure min./max.	1 ... 10 bar
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 bar

Technical data

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm	80 mm
Piston rod thread	M4	M6	M6	M8	M8	M10	M10	M12
Ports	M5	M5	M5	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8
Piston rod Ø	8 mm	10 mm	10 mm	12 mm	12 mm	16 mm	16 mm	20 mm
Stroke 5	R422001002	R422001003	R422001004	R422001005	R422001006	R422001007	R422001008	R422001009
10	R422001012	R422001013	R422001014	R422001015	R422001016	R422001017	R422001018	R422001019
15	R422001022	R422001023	R422001024	R422001025	R422001026	R422001027	R422001028	R422001029
20	R422001032	R422001033	R422001034	R422001035	R422001036	R422001037	R422001038	R422001039
25	R422001042	R422001043	R422001044	R422001045	R422001046	R422001047	R422001048	R422001049
30	R422001052	R422001053	R422001054	R422001055	R422001056	R422001057	R422001058	R422001059
40	R422001062	R422001063	R422001064	R422001065	R422001066	R422001067	R422001068	R422001069
50	R422001072	R422001073	R422001074	R422001075	R422001076	R422001077	R422001078	R422001079
60	R422001082	R422001083	R422001084	R422001085	R422001086	R422001087	R422001088	R422001089
80	-	-	-	R422001095	R422001096	R422001097	R422001098	R422001099
100	-	-	-	R422001105	R422001106	R422001107	R422001108	R422001109
125	-	-	-	R422001115	R422001116	R422001117	R422001118	R422001119
150	-	-	-	R422001125	R422001126	R422001127	R422001128	R422001129

Piston Ø Piston rod thread Ports Piston rod Ø	100 mm M12 G 1/8 25 mm
Stroke 5	R422001010
10	R422001020
15	R422001030
20	R422001040
25	R422001050
30	R422001060
40	R422001070
50	R422001080
60	R422001090
80	R422001100
100	R422001110
125	R422001120
150	R422001130

Technical data

Piston Ø	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm	63 mm	80 mm	100 mm
Retracting piston force	91 N	137 N	216 N	364 N	560 N	871 N	1478 N	2397 N	3886 N
Extracting piston force	106 N	164 N	259 N	422 N	665 N	1035 N	1647 N	2656 N	4145 N
Impact energy	0,15 J	0,2 J	0,3 J	0,5 J	0,7 J	1 J	1,3 J	1,8 J	2,5 J
Weight 0 mm stroke	0,059 kg	0,099 kg	0,123 kg	0,233 kg	0,303 kg	0,448 kg	0,689 kg	1,114 kg	2,153 kg
Weight +10 mm stroke	0,016 kg	0,023 kg	0,026 kg	0,042 kg	0,052 kg	0,07 kg	0,087 kg	0,116 kg	0,168 kg
Stroke max.	300 mm	300 mm	300 mm	300 mm	300 mm	300 mm	300 mm	500 mm	500 mm

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).

ATEX-certified cylinders with identification II 2G c IIB T4 / II 2D c IP65 T125°C X can be generated in the Internet configurator.

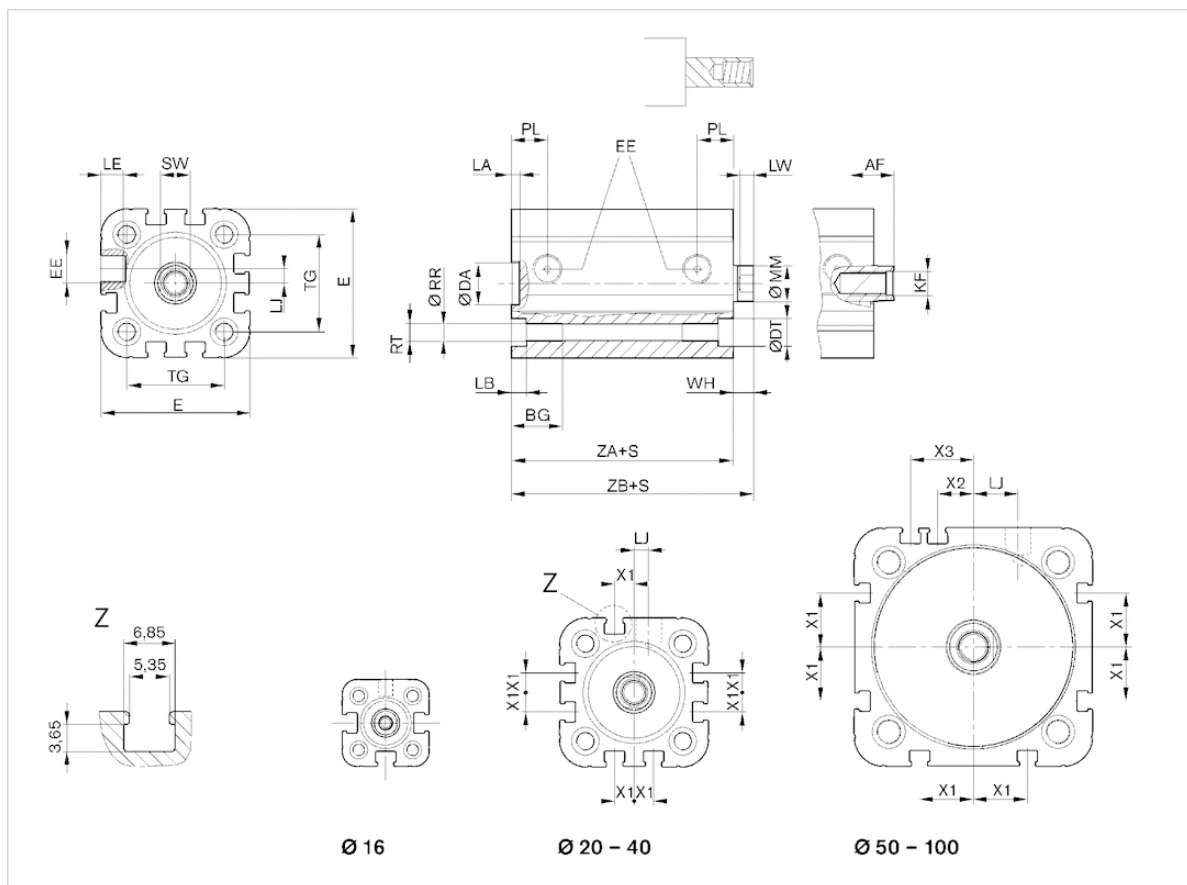
The operating temperature range for ATEX-certified cylinders is - 20 °C ... 50 °C .

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	LW	MM f8	PL	RR	RT 6H	SW	TG	WH 1)	X1	X2	X3
16 mm	10	15	10	6	29.3	M5	M4	2.5	3.5	4.5	0	4	8	8	3.3	M4	7	18	4,8 ±0,9	-	-	-
20 mm	12	15.5	12	7.5	36.3	M5	M6	2.5	4.5	4.5	4.5	4	10	10	4.2	M5	8	22	6,3 ±0,9	4.2	-	-
25 mm	12	15.5	12	8	40.3	M5	M6	2.5	4.5	4.5	4	4	10	10	4.2	M5	8	26	5,6 ±0,9	4.5	-	-
32 mm	12	17	14	9.2	50	G 1/8	M8	2.5	5	7.5	4.85	4.5	12	12	5.1	M6	10	32.5	7,4 ±0,9	6.5	-	-
40 mm	12	17	14	9.2	58	G 1/8	M8	2.5	5	7.5	9.85	4.5	12	12	5.1	M6	10	38	7,4 ±0,9	11	-	-
50 mm	16	17	18	11	68.3	G 1/8	M10	2.5	5	7.5	12	6	16	12	6.7	M8	13	46.5	8,4 ±0,9	13	4	13
63 mm	16	17	18	11	80	G 1/8	M10	2.5	5	7.5	14.8	6	16	12	6.7	M8	13	56.5	8,5 ±0,9	18	12	21
80 mm	20	20	23	15	96	G 1/8	M12	3	5	7.5	22	7	20	14	8.5	M10	16	72	9,8 ±1	18	16.5	25.5
100 mm	20	20	28	15	116	G 1/8	M12	3	5	7.5	27	7	25	16.5	8.5	M10	21	89	9,8 ±1	20	20	29

ZA ±0,1	ZB 1)
34.9	39,7 ±0,8
37.3	43,6 ±0,8

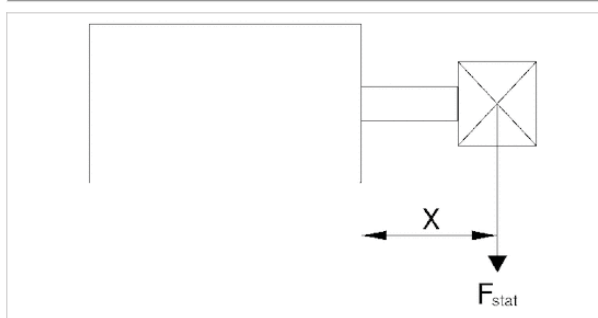
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ZA ±0,1	ZB 1)
39	44,5 ±0,9
44	51,4 ±1
45	52,4 ±1
45.5	53,6 ±1
49	57,4 ±1
54.7	64,4 ±1
67	76,7 ±1

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

Diagrams

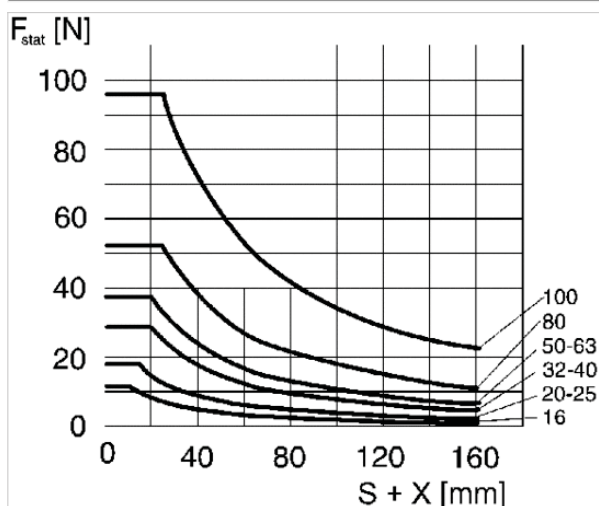
Maximum admissible lateral force static



F_{stat} = static lateral force

X = distance between force application point and cylinder cover

Maximum admissible lateral force static

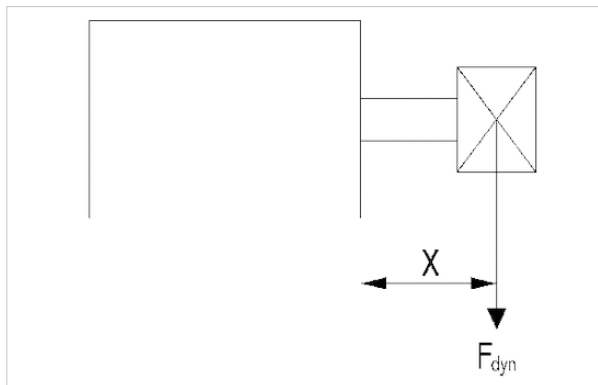


F_{stat} = static lateral force

X = distance between force application point and cylinder cover

S = stroke

Maximum admissible lateral force dynamic

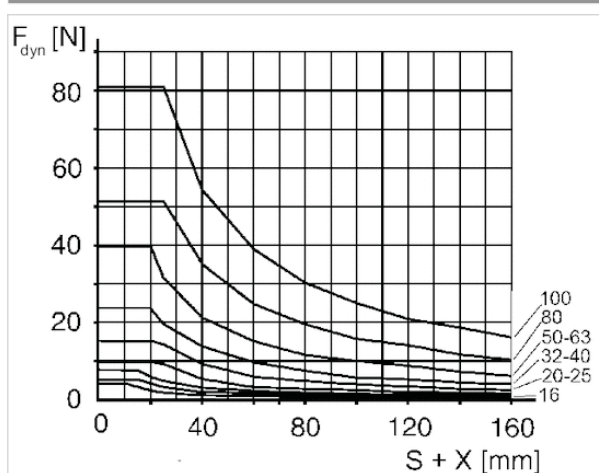


F_{dyn} = dynamic lateral force

X = distance between force application point and cylinder cover

S = stroke

Maximum admissible lateral force dynamic



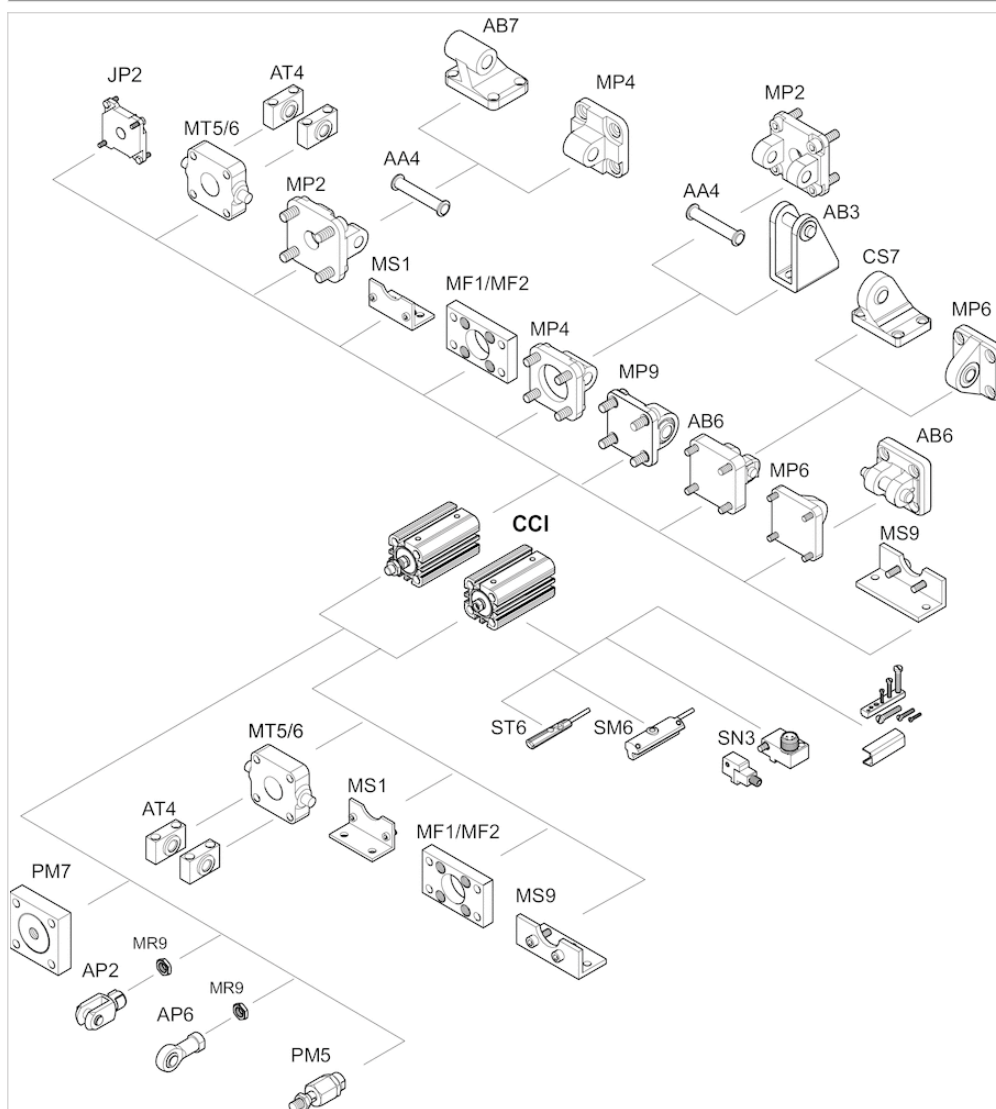
F_{dyn} = dynamic lateral force

X = distance between force application point and cylinder cover

S = stroke

Accessories overview

Overview drawing



Due to the high possible forces, not all add-on parts are suitable for CCI tandem (see CCI-TD accessories overview).

NOTE: This overview drawing is only for orientation to indicate where the various accessory parts can be fastened to the cylinder. The illustration has been simplified for this purpose. It is thus not possible to derive the dimensions from this overview.