

Compact cylinder, Series KPZ

- NFE 49004
- Ø 16-100 mm
- Ports M5 G 1/8
- double-acting
- with magnetic piston
- Cushioning elastic
- Piston rod External thread
- Piston rod Optionally through (hollow)
- ATEX optional
- Optionally heat-resistant



Standards	NFE 49004
Certificates	ATEX optional
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

Piston Ø Piston rod thread Ports	16 mm M8 M5	20 mm M10x1,25 M5	25 mm M10x1,25 M5	32 mm M10x1,25 G 1/8	40 mm M10x1,25 G 1/8	50 mm M12x1,25 G 1/8
Stroke 5	0822390200	0822391200	0822392200	0822393200	0822394200	0822395200
10	0822390201	0822391201	0822392201	0822393201	0822394201	0822395201
15	0822390202	0822391202	0822392202	0822393202	0822394202	0822395202
20	0822390203	0822391203	0822392203	0822393203	0822394203	0822395203
25	0822390204	0822391204	0822392204	0822393204	0822394204	0822395204
30	0822390205	0822391205	0822392205	0822393205	0822394205	0822395205
40	0822390206	0822391206	0822392206	0822393206	0822394206	0822395206
50	0822390207	0822391207	0822392207	0822393207	0822394207	0822395207
60	0822390208	0822391208	0822392208	0822393208	0822394208	0822395208
80	-	-	-	0822393209	0822394209	0822395209
100	-	-	-	0822393210	0822394210	0822395210

Piston Ø Piston rod thread Ports	63 mm M12x1,25 G 1/8	80 mm M16x1,5 G 1/8	100 mm M20x1,5 G 1/8
Stroke 5	0822396200	0822397200	0822398200
10	0822396201	0822397201	0822398201
15	0822396202	0822397202	0822398202
20	0822396203	0822397203	0822398203
25	0822396204	0822397204	0822398204
30	0822396205	0822397205	0822398205
40	0822396206	0822397206	0822398206
50	0822396207	0822397207	0822398207
60	0822396208	0822397208	0822398208
80	0822396209	0822397209	0822398209
100	0822396210	0822397210	0822398210

Technical data

Piston Ø	16 mm	20 mm
Retracting piston force	95 N	148 N
Extracting piston force	127 N	198 N
Impact energy	0,15 J	0,2 J
Working pressure min./max.	1 ... 10 bar	1 ... 10 bar
Sealing material	Nitrile butadiene rubber	Nitrile butadiene rubber
Stroke max.	300 mm	300 mm

Piston Ø	25 mm	32 mm	40 mm
Retracting piston force	260 N	435 N	720 N
Extracting piston force	309 N	507 N	792 N
Impact energy	0,3 J	0,5 J	0,7 J
Working pressure min./max.	1 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Sealing material	Nitrile butadiene rubber	Polyurethane	Polyurethane
Stroke max.	300 mm	300 mm	300 mm

Piston Ø	50 mm	63 mm	80 mm	100 mm
Retracting piston force	1110 N	1837 N	2969 N	4639 N
Extracting piston force	1237 N	1964 N	3167 N	4948 N
Impact energy	1 J	1,3 J	1,8 J	2,5 J
Working pressure min./max.	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar	0,6 ... 10 bar
Sealing material	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Stroke max.	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 Ex h IIC T4 Gb / II 2D Ex h IIIC T135°C Db_X can be generated in the Internet configurator.

The operating temperature range for ATEX-certified cylinders is -20°C ... 60°C.

The material for heat-resistant scraper and seal variants (ambient temperature: -10 °C ... 120 °C) is fluorocautchouc.

Further options can be generated in the Internet configurator.

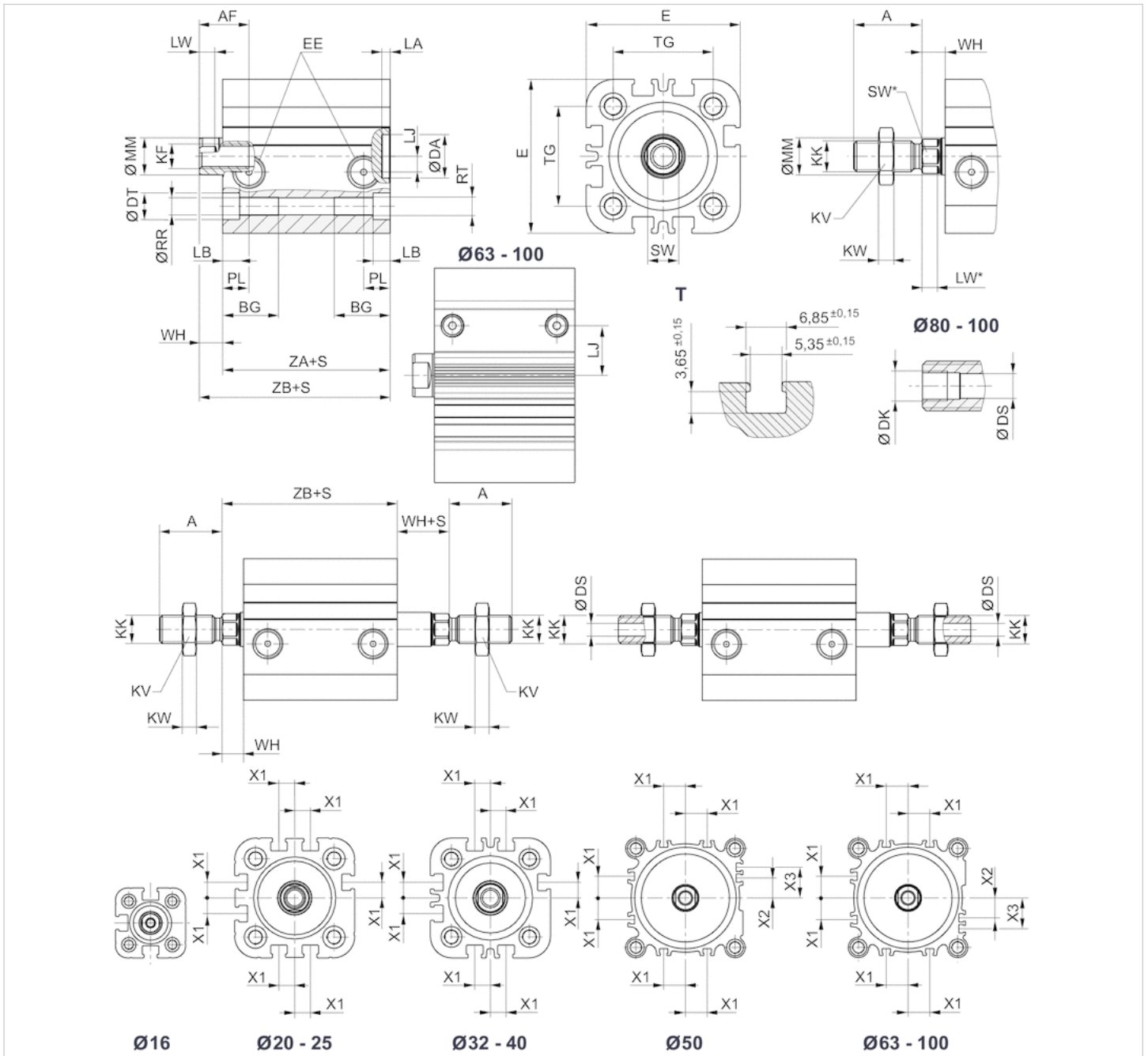
LW*/SW* Hexagonal key required

Technical information

Material	
Cylinder tube	Aluminum, anodized
Piston rod	Stainless steel
Front cover	Aluminum
End cover	Aluminum
Seal	Nitrile butadiene rubber Polyurethane
Nut for piston rod	Steel, galvanized
Scraper	Polyurethane

Dimensions

Dimensions



S = stroke

T = View for sensor groove

Dimensions

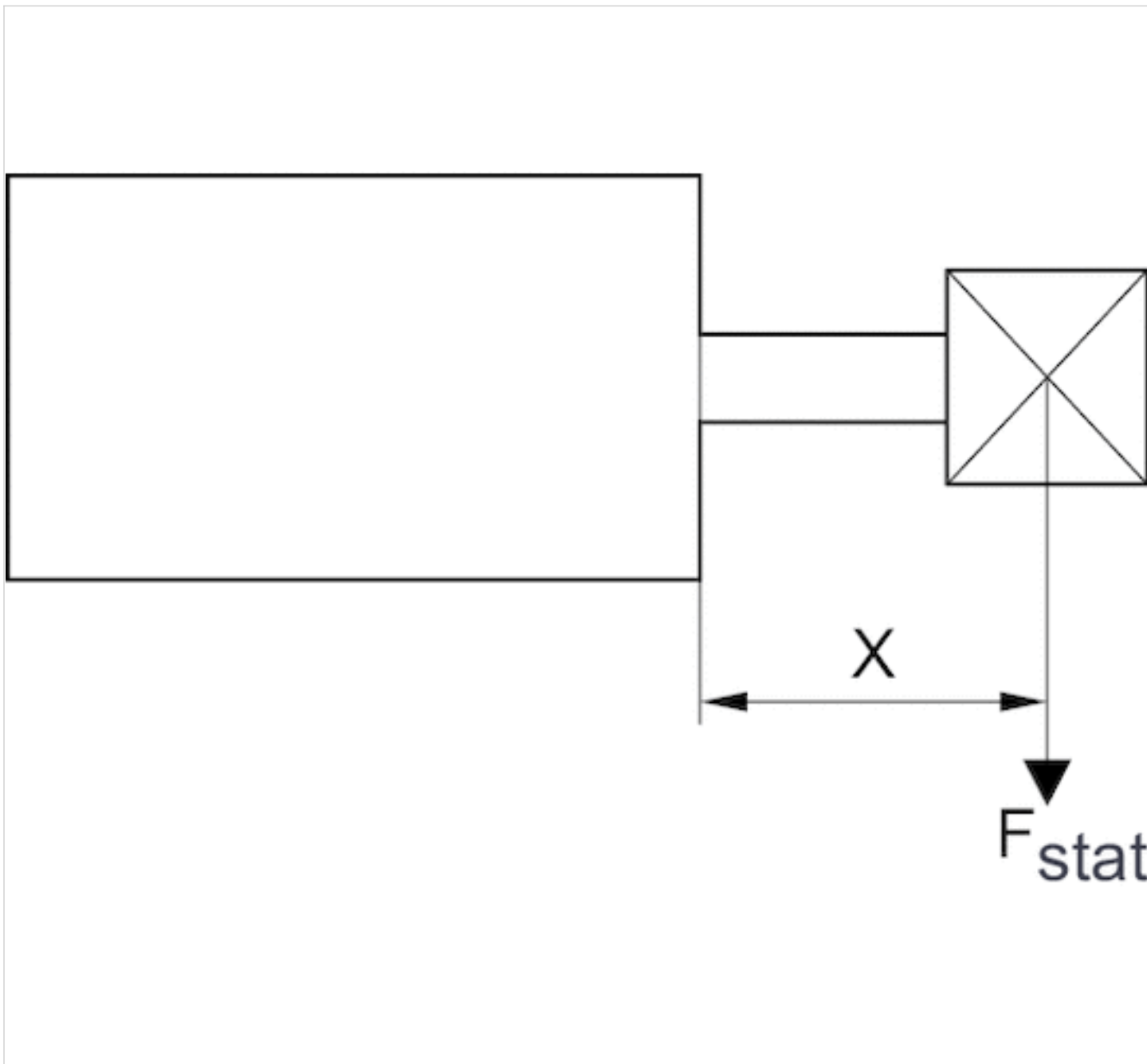
Piston Ø	A	BG min.	DA H11	Ø DK	Ø DS	DT H13	E	EE	KK	KV	KW	LA	LB	LJ
16 mm	20	14.5	10	-	-	6	29.5	M5	M8x1,25	13	4	2.5	3.5	2.5
20 mm	22	15.5	12	-	3	7.5	36	M5	M10x1,25	16	5	2.5	4.5	4.5
25 mm	22	15.5	12	-	3	8	40	M5	M10x1,25	16	5	2.5	4.4	5
32 mm	22	18	14	-	4.5	8.6	50	G 1/8	M10x1,25	16	5	2.5	5.5	5.1
40 mm	22	18	14	-	4.5	9	58	G 1/8	M10x1,25	16	5	2.5	5.5	9.6
50 mm	24	24	18	-	6	11	68	G 1/8	M12x1,25	18	6	2.5	2	8.5
63 mm	24	24	18	-	6	11	80	G 1/8	M12x1,25	18	6	2.5	2	17.8
80 mm	32	28	23	G 1/8	8	14	99	G 1/8	M16x1,5	24	8	3	1	22.9
100 mm	40	27.5	28	G 1/4	11.5	15	120	G 1/8	M20x1,5	30	10	3	3.5	26.5

Piston Ø	LW	MM f8	PL	Ø RR	RT	SW	TG	WH	X1	X2	X3	ZA + Stroke
16 mm	2.8	8	7.5	3.3	M4	7	18 ±0,4	4.5	-	-	-	38
20 mm	3.7	10	7.5	4.2	M5	8	22 ±0,4	5	4.2	-	-	38
25 mm	3.7	10	7.5	4.2	M5	8	26 ±0,4	5.5	4.5	-	-	39
32 mm	5*	12	8.5	5.1	M6	10*	32 ±0,5	7	6.5	-	-	44
40 mm	5*	12	8.5	5.1	M6	10*	42 ±0,5	7	11	-	-	45
50 mm	4,8*	16	8.5	6.7	M8	13*	50 ±0,6	7.5	13	4	13	45.5
63 mm	4,8*	16	8.5	6.7	M8	13*	62 ±0,7	8	18	12	21	49
80 mm	6,4*	20	8.3	8.5	M10	16*	82 ±0,7	9.5	18	16.5	25.5	54.5
100 mm	6,4*	25	9.7	8.5	M10	21*	103 ±0,7	10.5	20	20	29	66.5

Piston Ø	ZB + Stroke
16 mm	42,5 0/+1,4
20 mm	43 0/+1,4
25 mm	44,5 0/+1,4
32 mm	51 0/+1,6
40 mm	52 0/+1,6
50 mm	53 0/+1,6
63 mm	57 0/+2
80 mm	64 0/+2
100 mm	77 0/+2

Diagrams

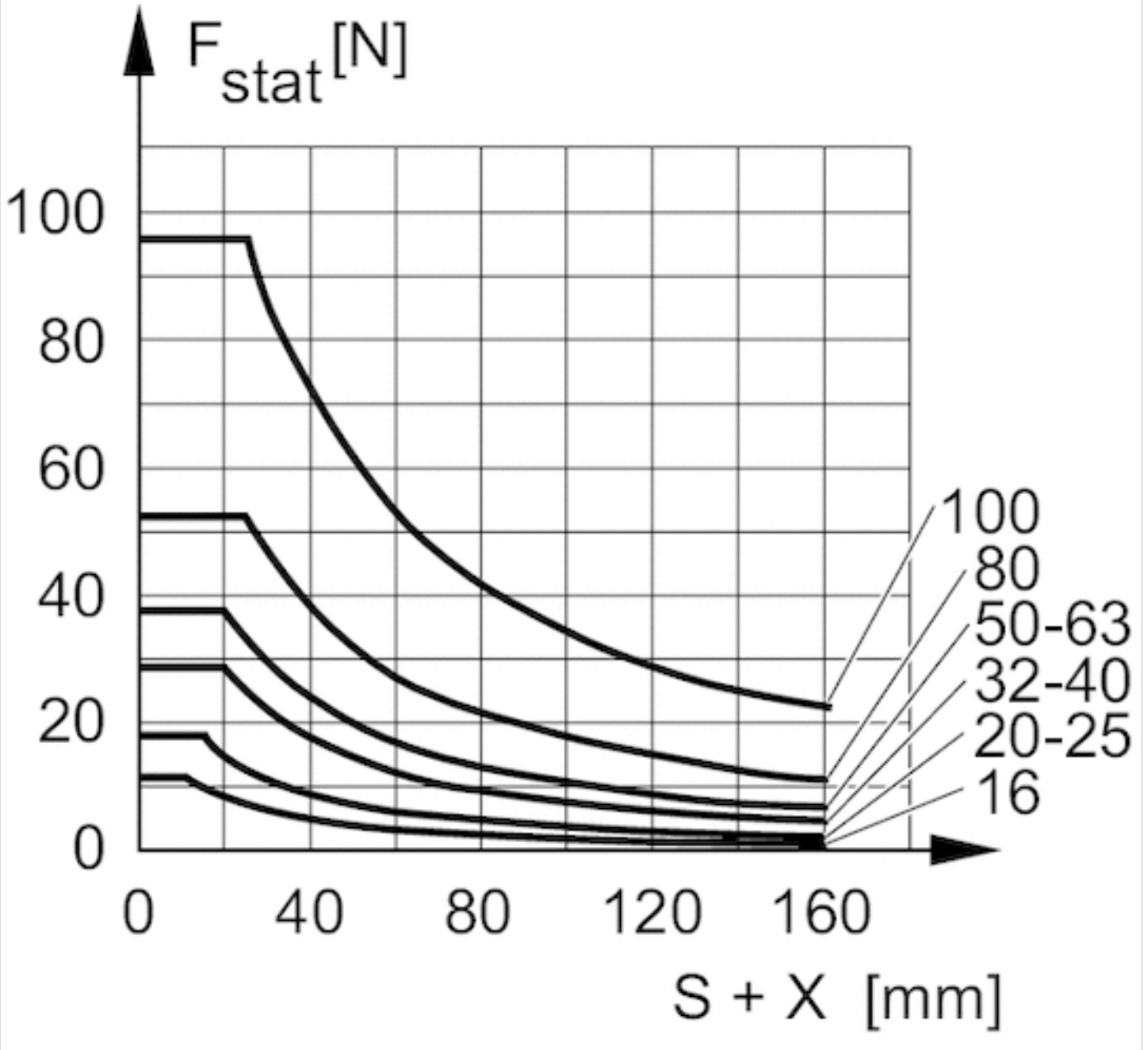
Maximum admissible lateral force, static



F_{stat} = static lateral force

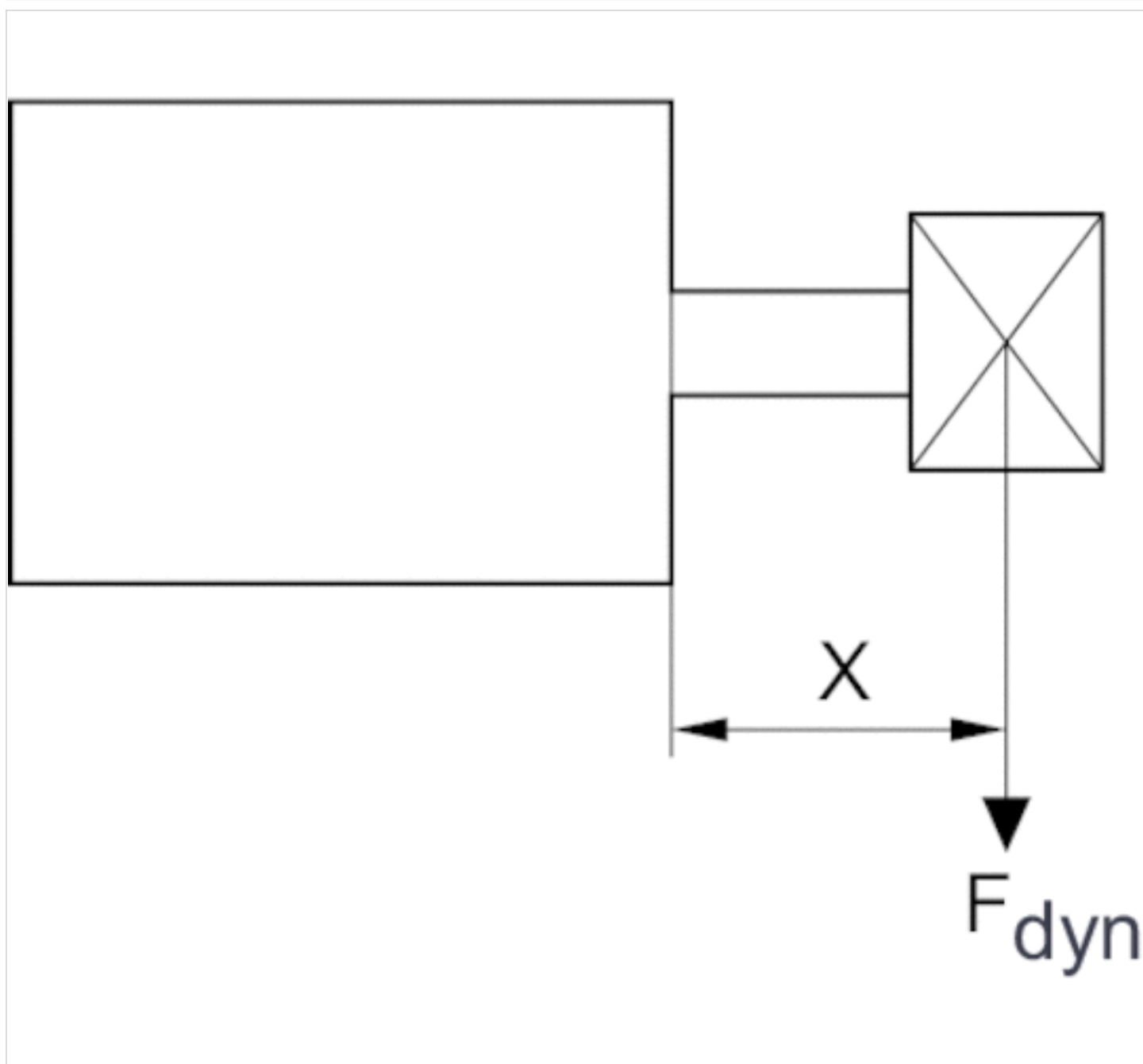
X = distance between force application point and cylinder cover

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

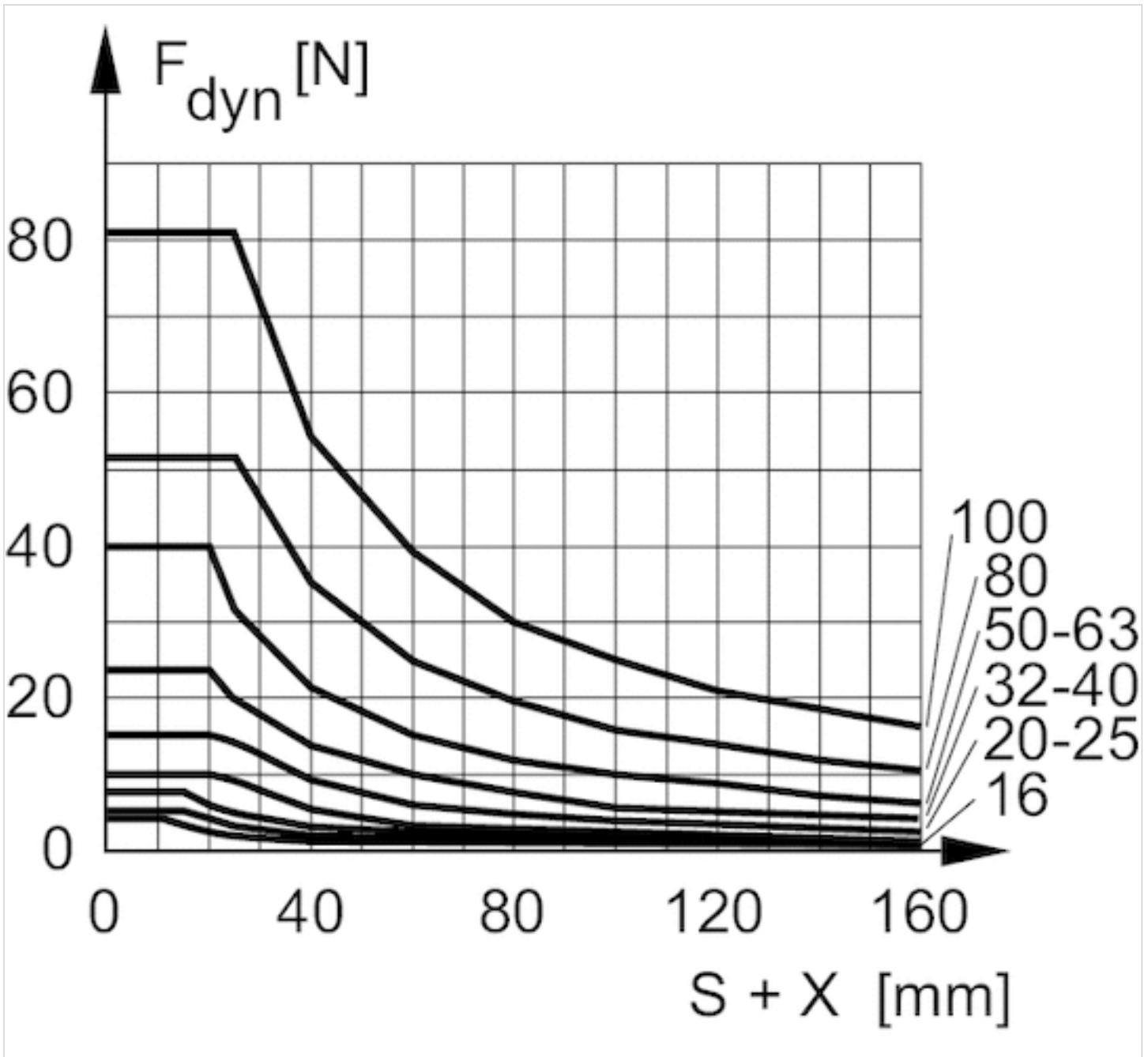


F_{dyn.} = dynamic lateral force

X = distance between force application point and cylinder cover

S = stroke

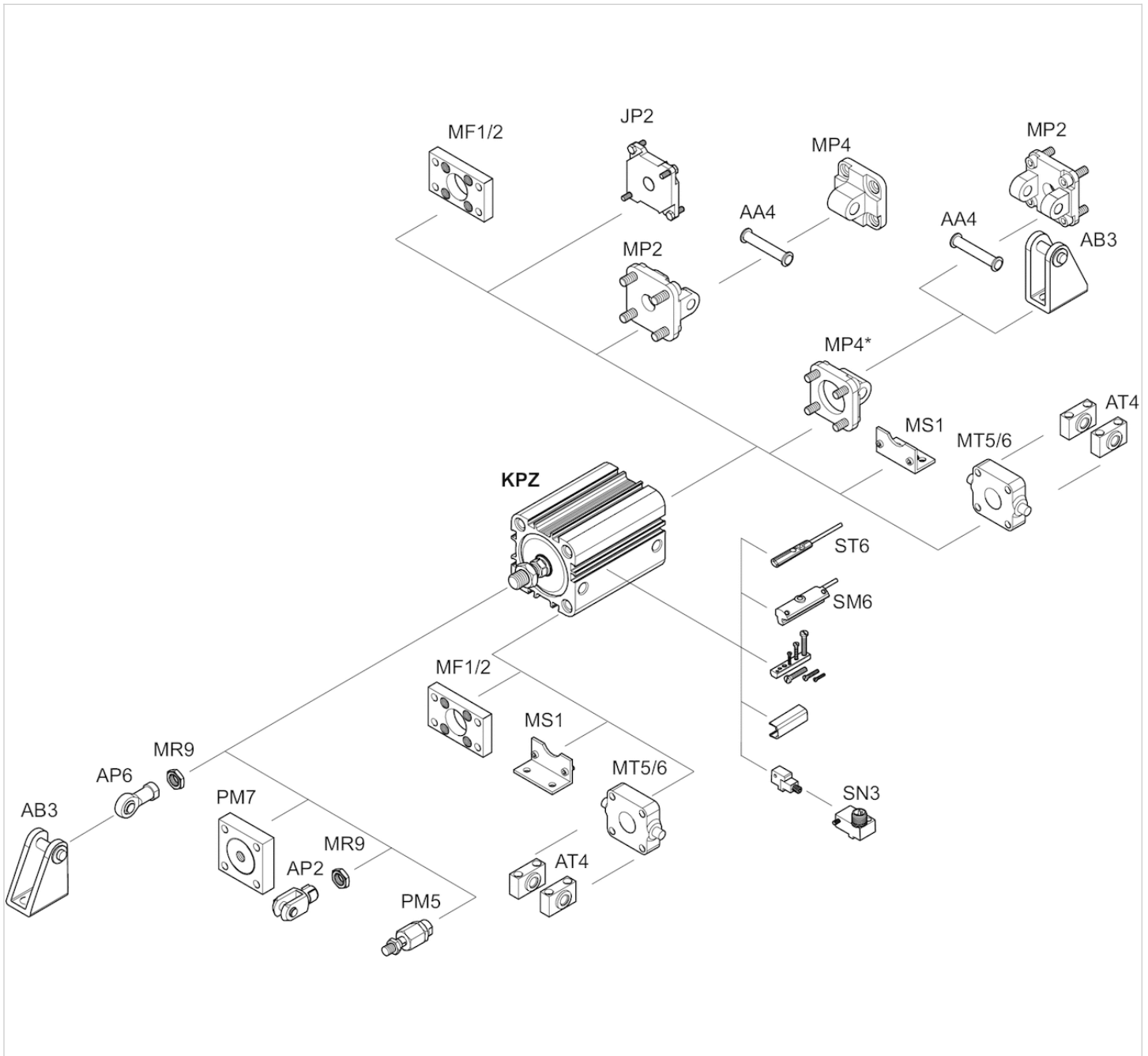
Maximum admissible lateral force, dynamic



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

Accessories overview

Overview drawing



* Available for installation on KPZ for cylinder diameters 16 - 25 mm

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.

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