Short-stroke cylinder, Series KHZ

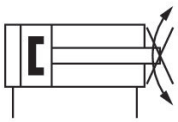
0822010813

2024-04-09

AVENTICS Series KHZ Short-stroke cylinders

The AVENTICS Series KHZ is a non-standard short-stroke cylinder ideal for tight installation spaces and ensure easy, safe integration in machinery.





Technical data

Industry	Industrial
Piston Ø	16 mm
Stroke	20 mm
Ports	M5
Functional principle	Double-acting
Cushioning	Elastic cushioning
Magnetic piston	Piston with magnet
Environmental requirements	Industry standard
Piston rod thread - type	Internal thread
Piston rod	non-rotating
Scraper	Standard Industry Scraper
Pressure for determining piston forces	6,3 bar
Retracting piston force	95 N
Extracting piston force	127 N
Min. ambient temperature	-25 °C
Max. ambient temperature	80 °C
Min. working pressure	1 bar
Max. working pressure	10 bar
Impact energy	0.06 J
Weight 0 mm stroke	0.084 kg
Weight +10 mm stroke	0.018 kg
Medium	Compressed air
Min. medium temperature	-25 °C

Short-stroke cylinder, Series KHZ

0822010813

Max. medium temperature	80 °C
~~Max. particle size~~	~~50 µm~~
Min. oil content of compressed air	0 mg/m³
Max. oil content of compressed air	5 mg/m³

Material

Piston rod	Stainless Steel
Piston material	Nitrile rubber
Scraper material	Polyurethane
Material, front cover	Brass
Cylinder tube	Aluminum
End cover	Aluminum
Part No.	0822010813

Technical information

Other versions can be ordered from AVENTICS sales offices.

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

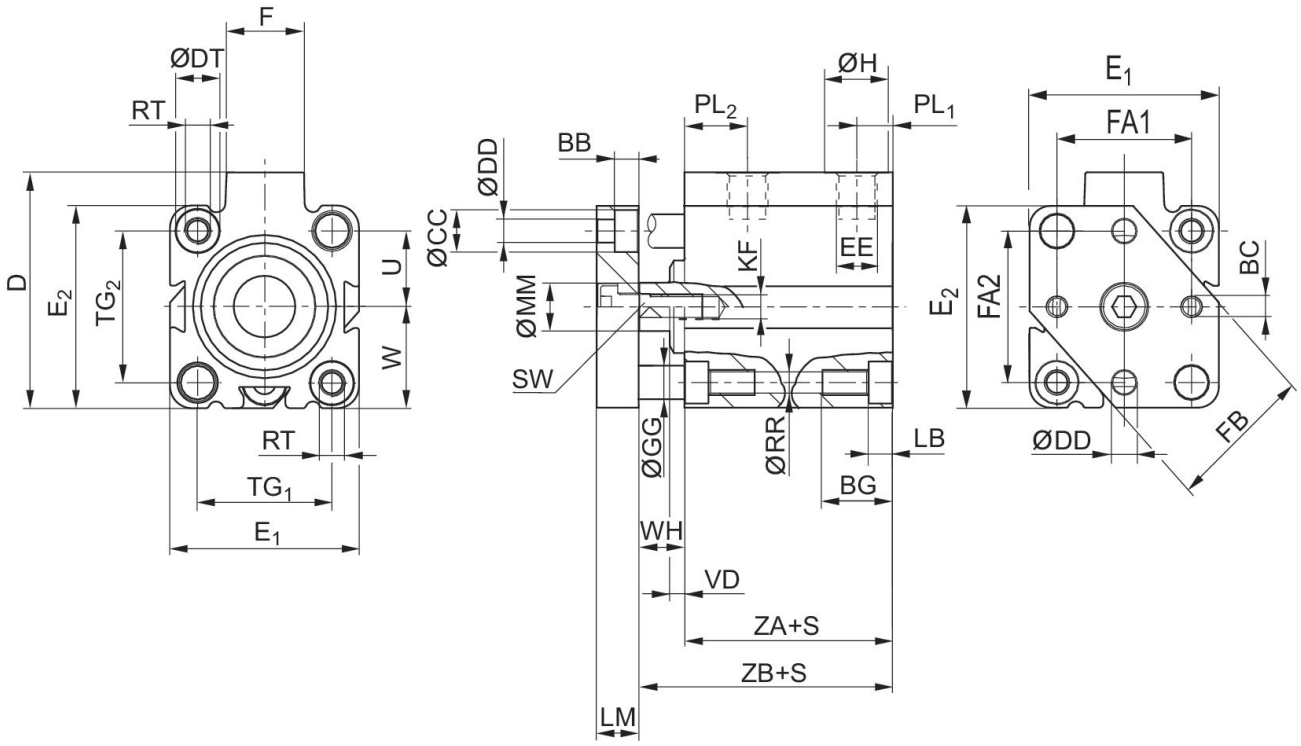
The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in https://www.emerson.com/en-us/support).

Short-stroke cylinder, Series KHZ

0822010813

Dimensions



Piston Ø	Stroke	BB	BC	BG min.	ØCC	D JS15	ØDD	ØDT H13	E1 JS15
16	10	3.5	M3	12.4	6	33	3.5	6	28
20	10	5	M4	13.6	7.5	37	4.5	7.5	32
16	15 - 50	3.5	M3	17.5	6	33	3.5	6	28
20	15 - 50	5	M4	13.6	7.5	37	4.5	7.5	32
25	10 - 50	5	M4	13.6	8	47.5	4.5	8	37
32	10 - 100	5.7	M5	16.7	10	56	5.5	10	45
40	10 - 100	5.7	M5	16.7	10	62.5	5.5	10	54.5
50	10 - 100	6.8	M6	19.8	11	73	6.5	11	66
63	10 - 100	9	M6	25	14	88	9	15	80
80	10/25/50 /80/100	9	M8	25	14	110	9	15	100
100	10/25/50 /80/100	9	M8	30	14	132	9	17.5	124

Piston Ø	E2 JS15	EE	F	FB	ØGG -0,005/-0,025	ØH	KF	LB +0,4	LM
16	28	M5	11.5	20	4	8	M 5	3.4	6
20	32	M5	11	25	5	8	M 5	4.6	8
16	28	M5	11.5	20	4	8	M 5	8.5	6
20	32	M5	11	25	5	8	M 5	4.6	8
25	39	G 1/8	17.5	30	6	15	M 5	4.6	8
32	48	G 1/8	18.5	35	8	15	M 6	5.7	10
40	54.5	G 1/8	18.5	40	8	15	M 6	5.7	10
50	66	G 1/8	18	50	10	15	M 8	6.8	12

Short-stroke cylinder, Series KHZ

0822010813

Piston Ø	E2 JS15	EE	F	FB	ØGG -0,005/-0,025	ØH	KF	LB +0,4	LM
63	80	G 1/8	23	60	12	15	M 8	9	12
80	100	G 1/4	27	75	12	19	M 10	9	15
100	124	G 1/4	28	90	14	19	M 12	11	15

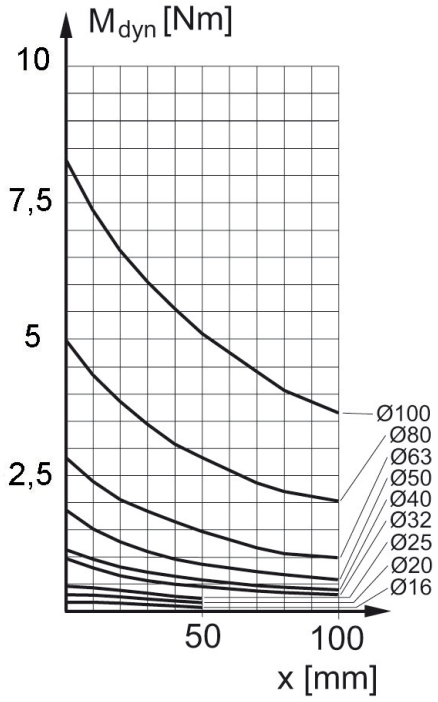
Piston Ø	ØMM f8	PL1	PL2	ØRR	RT	SW -0,3	TG1	TG2	U
16	8	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10
20	10	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11
16	8	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10
20	10	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11
25	10	9.5	11.5	4.2	M5	8	26 ±0,25	28 ±0,25	14
32	12	8.5	15	5.05	M6	10	32 ±0,25	36 ±0,25	18
40	12	10	13.5	5.05	M6	10	40 ±0,25	40 ±0,25	20
50	16	10	14	6.8	M8	13	50 ±0,25	50 ±0,25	25
63	16	11.5	14	8.5	M10	13	62 ±0,25	62 ±0,25	31
80	20	12	15.5	8.5	M10	17	82 ±0,3	82 ±0,3	41
100	25	12	18.5	10.2	M12	22	103 ±0,3	103 ±0,3	51.5

Piston Ø	VD -1	W	WH	FA1 ±0,1	FA2 ±0,1	ZA ±0,2	ZB ±0,8
16	–	14 ±0,2	4.5	20	20	32	36.5
20	–	16 ±0,2	4.5	22	22	32	36.5
16	–	14 ±0,2	4.5	20	20	38	42.5
20	–	16 ±0,2	4.5	22	22	38	42.5
25	3.5	19,5 ±0,2	9.5	26	28	39	48.5
32	3.5	24 ±0,2	11	32	36	39.5	50.5
40	4.5	27,3 ±0,2	13.5	40	40	39.5	53
50	6	33 ±0,2	13.5	50	50	39.5	53
63	6.5	40 ±0,2	15.5	62	62	42	57.5
80	8.5	50 ±0,3	18	82	82	46	64
100	7	62 ±0,3	20	103	103	56	76

Short-stroke cylinder, Series KHZ

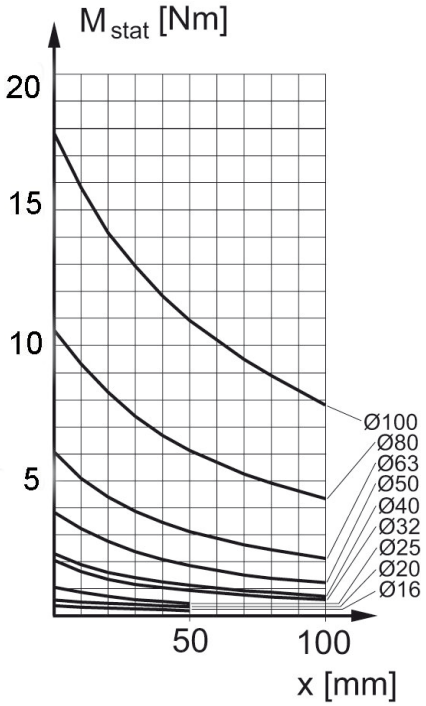
0822010813

M = max. permissible torque dynamic



X = distance between force application point and cylinder cover

Max. permissible torque static

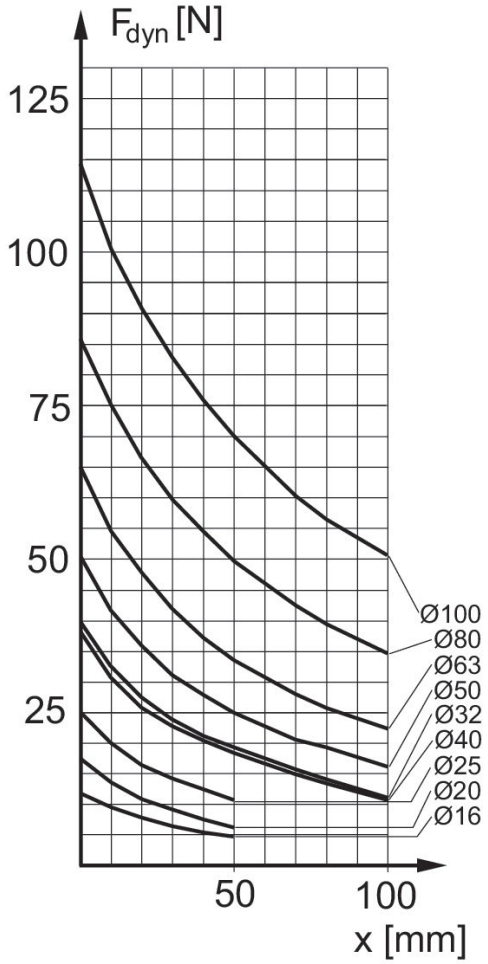


X = distance between force application point and cylinder cover

Short-stroke cylinder, Series KHZ

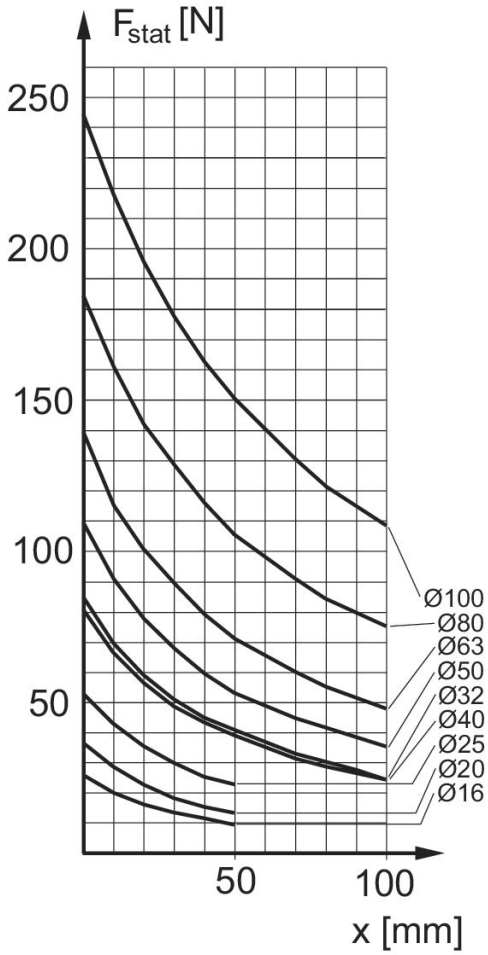
0822010813

Maximum admissible lateral force dynamic



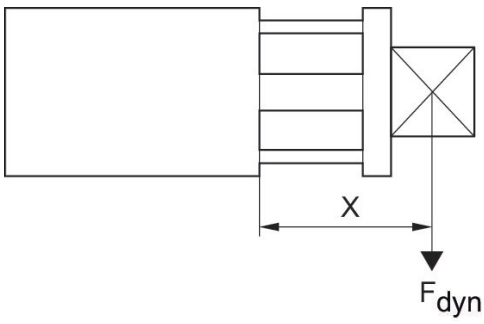
F dyn. = dynamic lateral force
X = distance between force application point and cylinder cover

Maximum admissible lateral force static



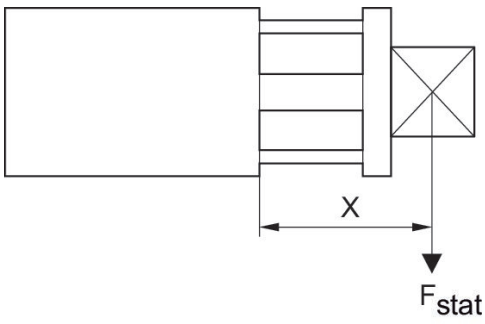
F stat. = static lateral force
X = distance between force application point and cylinder cover

Maximum admissible lateral force dynamic



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

Maximum admissible lateral force static

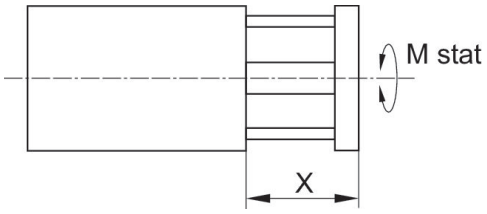


F stat. = static lateral force
X = distance between force application point and cylinder cover

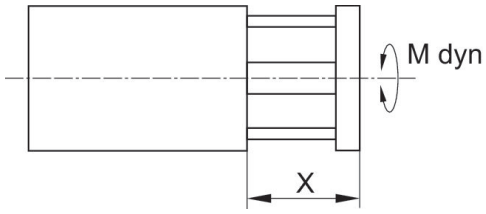
Short-stroke cylinder, Series KHZ

0822010813

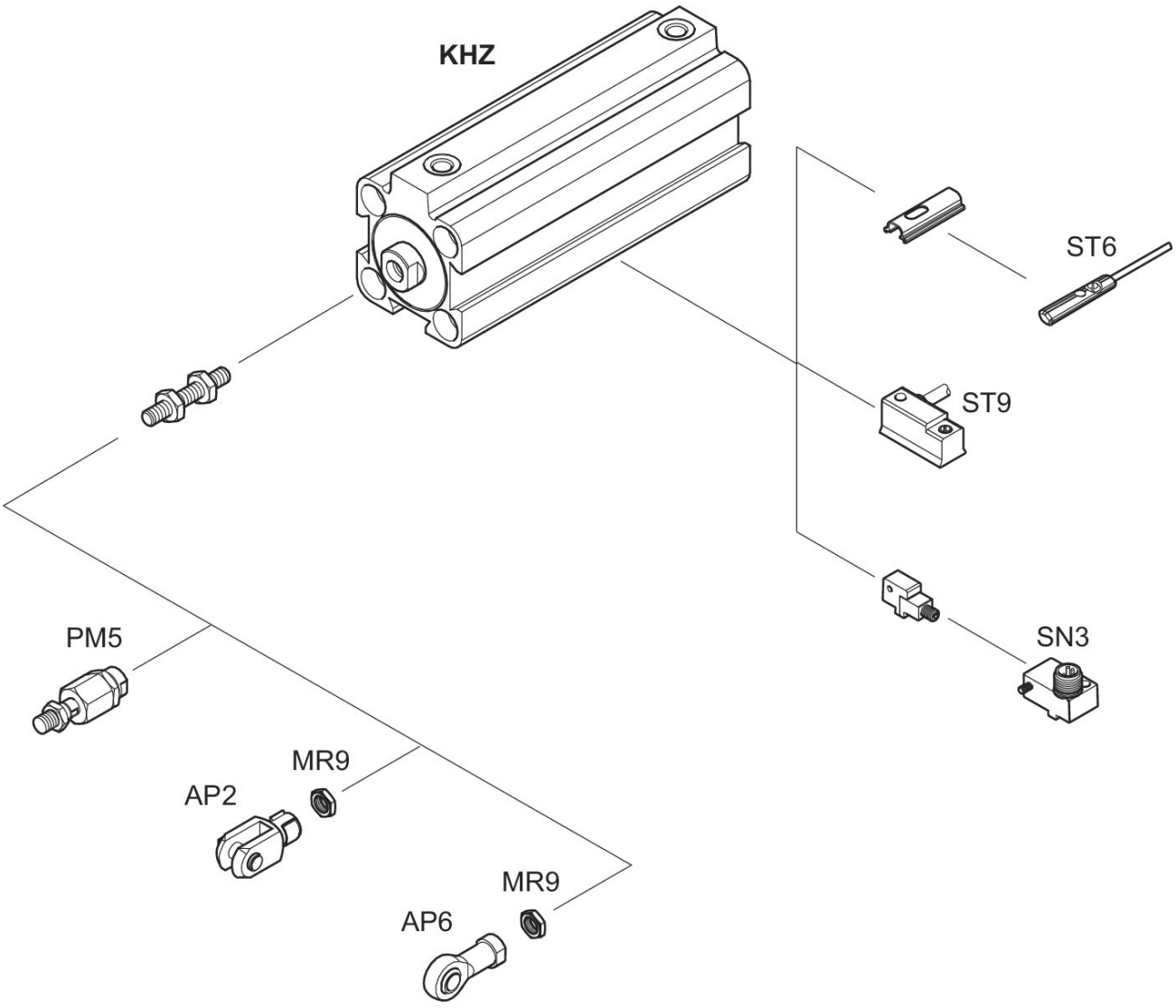
Max. permissible torque static



Max. permissible torque dynamic



Overview drawing



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.