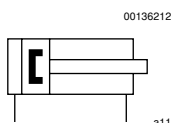


## Piston rod cylinders ▶ Short-stroke and compact cylinders

### Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread



Compressed air connection

Internal thread

Ambient temperature min./max.

-25°C / +80°C

Medium temperature min./max.

-25°C / +80°C

Medium

Compressed air

Max. particle size

50 µm

Oil content of compressed air

0 mg/m³ - 5 mg/m³

Pressure for determining piston forces

6,3 bar

Materials:

Cylinder tube

Aluminum, anodized

Piston rod

Stainless steel

Piston

Nitrile rubber

End cover

Aluminum

Scraper

Polyurethane

#### Technical Remarks



- 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, see chapter „Technical information“.

Piston Ø		[mm]	12	16	20	25	32
Retracting piston force		[N]	53	95	148	260	435
Extracting piston force		[N]	71	127	198	309	507
Impact energy		[J]	0.03	0.06	0.08	0.1	0.16
Weight	0 mm stroke	[kg]	0.05	0.065	0.092	0.178	0.195
	+10 mm stroke	[kg]	0.013	0.016	0.021	0.03	0.042
Working pressure min./max.		[bar]	1 - 10	1 - 10	1 - 10	1 - 10	0.6 - 10
Material, front cover			Brass	Brass	Brass	Brass	Aluminum

Piston Ø		[mm]	40	50	63	80	100
Retracting piston force		[N]	720	1110	1837	2857	4639
Extracting piston force		[N]	792	1237	1964	3167	4948
Impact energy		[J]	0.24	0.32	0.38	0.38	0.5
Weight	0 mm stroke	[kg]	0.285	0.388	0.636	1.222	2.385
	+10 mm stroke	[kg]	0.052	0.074	0.096	0.149	0.218
Working pressure min./max.		[bar]	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10	0.6 - 10
Material, front cover			Aluminum	Aluminum	Aluminum	Aluminum	Aluminum

### Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread

	Piston Ø Piston rod thread Ports	12	16	20	25	32
		M3 M5	M5 M5	M5 M5	M5 G 1/8	M6 G 1/8
	Stroke 5	<b>0822010600</b>	<b>0822010610</b>	<b>0822010620</b>	<b>0822010630</b>	<b>0822010640</b>
	10	<b>0822010601</b>	<b>0822010611</b>	<b>0822010621</b>	<b>0822010631</b>	<b>0822010641</b>
	15	<b>0822010602</b>	<b>0822010612</b>	<b>0822010622</b>	<b>0822010632</b>	<b>0822010642</b>
	20	<b>0822010603</b>	<b>0822010613</b>	<b>0822010623</b>	<b>0822010633</b>	<b>0822010643</b>
	25	<b>0822010604</b>	<b>0822010614</b>	<b>0822010624</b>	<b>0822010634</b>	<b>0822010644</b>
	30	<b>0822010605</b>	<b>0822010615</b>	<b>0822010625</b>	<b>0822010635</b>	<b>0822010645</b>
	40	<b>0822010606</b>	<b>0822010616</b>	<b>0822010626</b>	<b>0822010636</b>	<b>0822010646</b>
	50	-	-	<b>0822010627</b>	<b>0822010637</b>	<b>0822010647</b>
	80	-	-	-	-	<b>0822010648</b>
	100	-	-	-	-	<b>0822010649</b>
	Piston Ø Piston rod thread Ports	40 M6 G 1/8	50 M8 G 1/8	63 M8 G 1/8	80 M10 G 1/4	100 M12 G 1/4
	Stroke 5	<b>0822010650</b>	-	-	-	-
	10	<b>0822010651</b>	<b>0822010661</b>	<b>0822010671</b>	<b>0822010681</b>	<b>0822010691</b>
	15	<b>0822010652</b>	<b>0822010662</b>	<b>0822010672</b>	<b>R402005794</b>	-
	20	<b>0822010653</b>	<b>0822010663</b>	<b>0822010673</b>	-	-
	25	<b>0822010654</b>	<b>0822010664</b>	<b>0822010674</b>	<b>0822010684</b>	<b>0822010694</b>
	30	<b>0822010655</b>	<b>0822010665</b>	<b>0822010675</b>	-	-
	40	<b>0822010656</b>	<b>0822010666</b>	<b>0822010676</b>	R402005797	<b>R402005844</b>
	50	<b>0822010657</b>	<b>0822010667</b>	<b>0822010677</b>	<b>0822010687</b>	<b>0822010697</b>
	80	<b>0822010658</b>	<b>0822010668</b>	<b>0822010678</b>	<b>0822010688</b>	<b>0822010698</b>
	100	<b>0822010659</b>	<b>0822010669</b>	<b>0822010679</b>	0822010689	0822010699

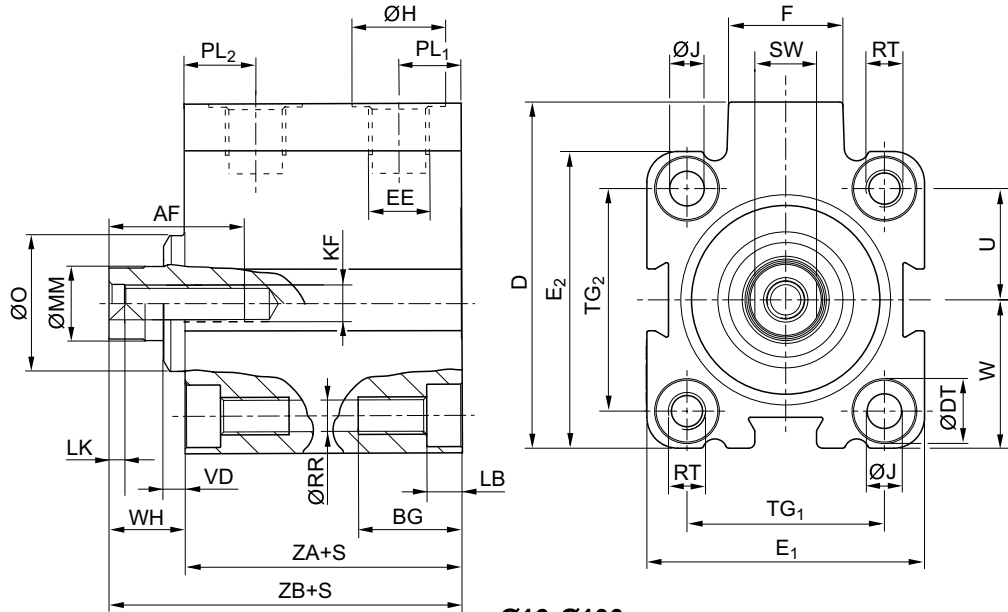
Other versions can be ordered from AVENTICS sales offices.

Piston rod cylinders ▶ Short-stroke and compact cylinders

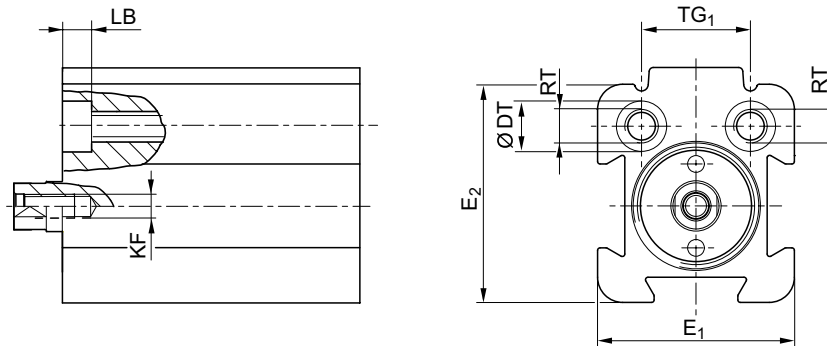
## Short-stroke cylinder, Series KHZ

▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread

### Dimensions



**Ø16-Ø100**



**Ø12**

00106563

S = stroke

Piston Ø	S	AF +1	BG 1)	D JS15	ØDT H13	E1 JS15	E2 JS15	EE	F	ØH	ØJ	KF	LB +0,4
12	5 - 10	8	12.4	28	6	23.5	26	M 5	11	8	3.3	M3	3.4
12	15 - 40	8	17.5	28	6	23.5	26	M 5	11	8	3.3	M3	8.5
16	5 - 10	10	12.4	33	6	28	28	M 5	11.5	8	3.55	M5	3.4
16	15 - 40	10	17.5	33	6	28	28	M 5	11.5	8	3.55	M5	8.5
20	5 - 10	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M5	4.6
20	15 - 50	10	13.6	37	7.5	32	32	M 5	11	8	4.55	M5	4.6
25	5 - 50	10	13.6	47.5	8	37	39	G 1/8	17.5	15	4.55	M5	4.6
32	5 - 100	15	16.7	56	10	45	48	G 1/8	18.5	15	5.5	M6	5.7
40	5 - 100	15	16.7	62.5	10	54.5	54	G 1/8	18.5	15	5.5	M6	5.7
50	10 - 100	18	19.8	73	11	66	66	G 1/8	18	15	7.3	M8	6.8
63	10 - 100	18	25	88	15	80	80	G 1/8	23	15	9.2	M8	9
80	10 - 100	18	25	110	15	100	100	G 1/4	27	19	9.2	M10	9
100	10 - 100	20	30	132	17.5	124	124	G 1/4	28	19	11	M12	11

Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information

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**Piston rod cylinders ▶ Short-stroke and compact cylinders**
**Short-stroke cylinder, Series KHZ**
**▶ Ports: M5 - G 1/4 ▶ double-acting ▶ with magnetic piston ▶ Cushioning: elastic ▶ Piston rod: Internal thread**

Piston Ø	LK +0,5	ØMM f8	ØO	PL1	PL2	ØRR	RT	SW -0,3	TG1	TG2	U	W
12	2	6	-	6	10.5	3.3	M4	5	13 ±0,2	-	9.5	11,5 ±0,2
12	2	6	-	6	10.5	3.3	M4	5	13 ±0,2	-	9.5	11,5 ±0,2
16	2	8	-	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2
16	2	8	-	6.5	11.3	3.3	M4	7	20 ±0,2	20 ±0,2	10	14 ±0,2
20	2	10	-	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2
20	2	10	-	6.5	10	4.2	M5	8	22 ±0,2	22 ±0,2	11	16 ±0,2
25	2	10	20	9.5	11.5	4.2	M5	8	26 ±0,25	28 ±0,25	14	19,5 ±0,2
32	2.5	12	22	8.5	15	5.05	M6	10	32 ±0,25	36 ±0,25	18	24 ±0,2
40	2.5	12	30	10	13.5	5.05	M6	10	40 ±0,25	40 ±0,25	20	27,3 ±0,2
50	3.5	16	35	10	14	6.8	M8	13	50 ±0,25	50 ±0,25	25	33 ±0,2
63	3.5	16	35	11.5	14	8.5	M10	13	62 ±0,25	62 ±0,25	31	40 ±0,2
80	4	20	46	12	15.5	8.5	M10	17	82 ±0,3	82 ±0,3	41	50 ±0,3
100	4	25	56	12	18.5	10.2	M12	22	103 ±0,3	103 ±0,3	51.5	62 ±0,3

Piston Ø	VD -1	WH	ZA ±0,2	ZB ±0,8								
12	-	5.5	30.5	36								
12	-	5.5	30.5	36								
16	-	4.5	32	36.5								
16	-	4.5	38	42.5								
20	-	4.5	32	36.5								
20	-	4.5	38	42.5								
25	3.5	9.5	39	48.5								
32	3.5	11	39.5	50.5								
40	4.5	13.5	39.5	53								
50	6	13.5	39.5	53								
63	6.5	15.5	42	57.5								
80	8.5	18	46	64								
100	7	20	56	76								

1) Min.