

AVENTICS Series TRB Tie rod cylinders (ISO 1552)

The AVENTICS Series TRB (ISO 1552) cylinders are among the most frequently implemented in industries where heavy duty cylinders are required, such as wood and aluminium, steel and automotive, heavy-duty machinery and mining to name just a few.



Technical data

Industry	Industrial
Standards	ISO 1552
Piston Ø	40 mm
Stroke	500 mm
Ports	G 1/4
Functional principle	Double-acting
Cushioning	Pneumatic adjustable cushioning
Magnetic piston	Piston without magnet
Environmental requirements	Industry standard Heat resistant
Piston rod thread - type	External thread
Piston rod thread	M12x1,25
Piston rod	single
Scraper	Heat-Resistant Scraper
Pressure for determining piston forces	6,3 bar
Retracting piston force	660 N
Extracting piston force	790 N
Min. ambient temperature	-10 °C
Max. ambient temperature	150 °C
Min. working pressure	1.5 bar

Tie rod cylinder ISO 15552, Series TRB

series TRB

0822241410

2024-04-26

Max. working pressure	10 bar
Cushioning length	15 mm
Cushioning energy	9 J
Weight 0 mm stroke	0.67 kg
Weight +10 mm stroke	0.03 kg
Stroke max.	1900 mm
Medium	Compressed air
Min. medium temperature	-10 °C
Max. medium temperature	150 °C
Max. particle size	50 µm
Min. oil content of compressed air	0 mg/m ³
Max. oil content of compressed air	5 mg/m ³

Material

Piston rod	Stainless Steel
Scraper material	Fluorocaoutchouc
Material tie-rod	Stainless Steel
Seal material	Fluorocaoutchouc
Material, front cover	Die-cast aluminum
Cylinder tube	Aluminum
End cover	Die-cast aluminum
Nut for piston rod	Steel, chrome-plated
Part No.	0822241410

Technical information

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>).

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Dimensions



S = stroke

*) For cylinders with optional piston rod with internal thread

Dimensions

Piston \varnothing	A -2	AF+1	$\varnothing B$ d11	$\varnothing BA$ d11	BG min.	E	EE	G	H
32	22	12	30	30	16	46.5	G 1/8	27.75	47.5
40	24	13.5	35	35	16	53	G 1/4	33.25	53
50	32	17	40	40	16	65	G 1/4	31	65
63	32	17	45	45	16	75	G 3/8	38.25	75
80	40	21	45	45	17	95	G 3/8	38.25	95
100	40	21	55	55	17	115	G 1/2	42.25	115
125	54	28	60	60	20	140	G 1/2	53.85	140

Piston \varnothing	KF	KK	KV	KW	$\varnothing MM$ f8	PL	L2	L3 $\pm 0,5$	L8
32	M6	M10x1,25	16	5	12	16	16.25	4.5	94 $\pm 0,4$
40	M8	M12x1,25	18	6	16	20	18.25	4.5	105 $\pm 0,7$
50	M10	M16x1,5	24	8	20	19	25	4.5	106 $\pm 0,7$
63	M10	M16x1,5	24	8	20	24	25	4.5	121 $\pm 0,8$
80	M12	M20x1,5	30	10	25	23.5	33	0	128 $\pm 0,8$
100	M12	M20x1,5	30	10	25	25	36	0	138 ± 1
125	M6	M27x2	41	13.5	32	33	45	0	160 ± 1

Piston \varnothing	RT	SW	TG	VA -1	VD	WH
32	M6	10	32,5 $\pm 0,5$	4	5	26 $\pm 1,4$

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Piston Ø	RT	SW	TG	VA -1	VD	WH
40	M6	13	38±0,5	4	5	30±1,4
50	M8	17	46.5±0,6	4	5	37±1,4
63	M8	17	56,5±0,7	4	5	37±1,8
80	M10	22	72±0,7	4	5	46±1,8
100	M10	22	89±0,7	4	5	51±1,8
125	M12	27	110±1,1	6	7	65±2,2

Cushioning diagram



v_i = Piston velocity [m/s] m = Cushionable mass [kg]

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