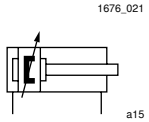
Tie rod cylinder ISO 6431, Series 167

► Ports: G 1/8 - G 1/2 ► double-acting ► with magnetic piston ► Cushioning: pneumatically, adjustable ► Piston rod: external thread



Standards	ISO 6431
Compressed air connection	Internal thread
Working pressure min./max.	2 bar / 10 bar
Ambient temperature min./max.	-20°C / +75°C
Medium temperature min./max.	-20°C / +75°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 bar

Materials:	
Cylinder tube	Aluminum, anodized
Piston rod	chrome-plated
Front cover	Aluminum
End cover	Aluminum
Seal	Acrylonitrile butadiene rubber

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“.
- Ø25 mm is not according to ISO 6431

Piston Ø		[mm]	25	32	40	50	63
Retracting piston force		[N]	230	420	640	990	1680
Extracting piston force		[N]	300	480	760	1180	1860
Cushioning length		[mm]	11	13.5	15	17	16.5
Cushioning energy		[J]	2.3	-	-	-	-
Weight	0 mm stroke	[kg]	0.27	0.45	0.76	1.1	1.7
	+10 mm stroke	[kg]	0.018	0.021	0.032	0.042	0.054
Stroke max.		[mm]	1500	1500	1600	1600	1600

Piston Ø		[mm]	80	100			
Retracting piston force		[N]	2720	4230			
Extracting piston force		[N]	3000	4680			
Cushioning length		[mm]	19.5	19.5			
Cushioning energy		[J]	-	-			
Weight	0 mm stroke	[kg]	2.5	3.7			
	+10 mm stroke	[kg]	0.072	0.1			
Stroke max.		[mm]	1700	1700			

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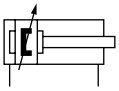

Piston Ø Piston rod thread Ports	25 M10x1,25 G 1/8	32 M10x1,25 G 1/8	40 M12x1,25 G 1/4	50 M16x1,5 G 1/4	63 M16x1,5 G 3/8
Stroke 25	**1670202000**	**1670302000**	**1670402000**	**1670502000**	**1670602000**
50	**1670205000**	**1670305000**	**1670405000**	**1670505000**	**1670605000**
80	**1670208000**	**1670308000**	**1670408000**	**1670508000**	**1670608000**
100	**1670210000**	**1670310000**	**1670410000**	**1670510000**	**1670610000**
125	**1670212000**	**1670312000**	**1670412000**	**1670512000**	**1670612000**
160	**1670216000**	**1670316000**	**1670416000**	**1670516000**	**1670616000**
200	**1670220000**	**1670320000**	**1670420000**	**1670520000**	**1670620000**
250	**1670225000**	1670325000	**1670425000**	**1670525000**	**1670625000**
320	-	-	-	**1670532000**	**1670632000**
400	-	-	-	**1670540000**	**1670640000**
500	-	-	-	**1670550000**	**1670650000**

Piston Ø Piston rod thread Ports	80 M20x1,5 G 3/8	100 M20x1,5 G 1/2
Stroke 25	**1670802000**	**1671002000**
50	**1670805000**	**1671005000**
80	**1670808000**	**1671008000**
100	**1670810000**	**1671010000**
125	**1670812000**	**1671012000**
160	**1670816000**	**1671016000**
200	**1670820000**	**1671020000**
250	**1670825000**	**1671025000**
320	**1670832000**	**1671032000**
400	**1670840000**	**1671040000**
500	1670850000	**1671050000**

Configurable product	
	This product is configurable. Please use our Internet configurator at http://www.aventics.com or contact the nearest AVENTICS sales office.

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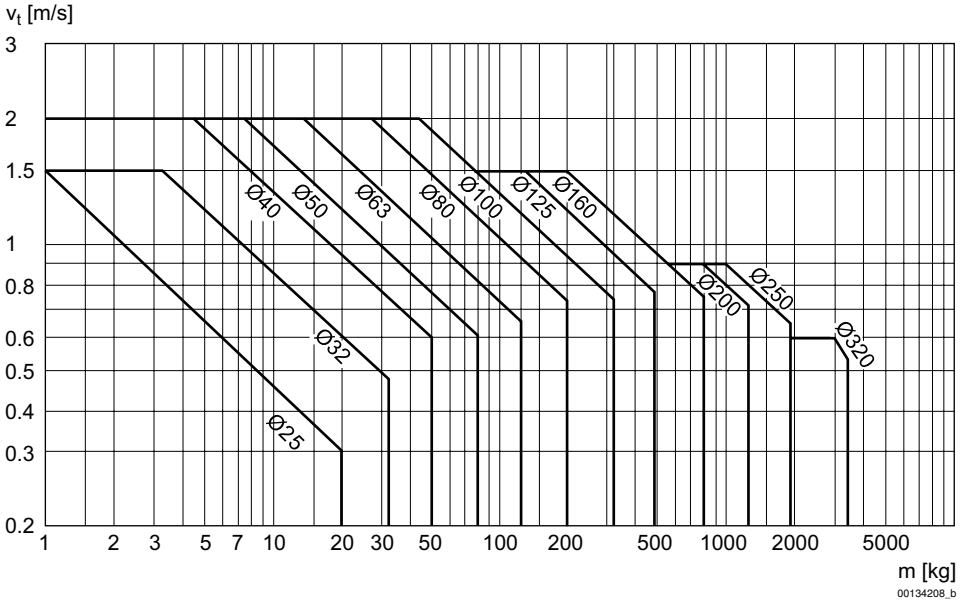
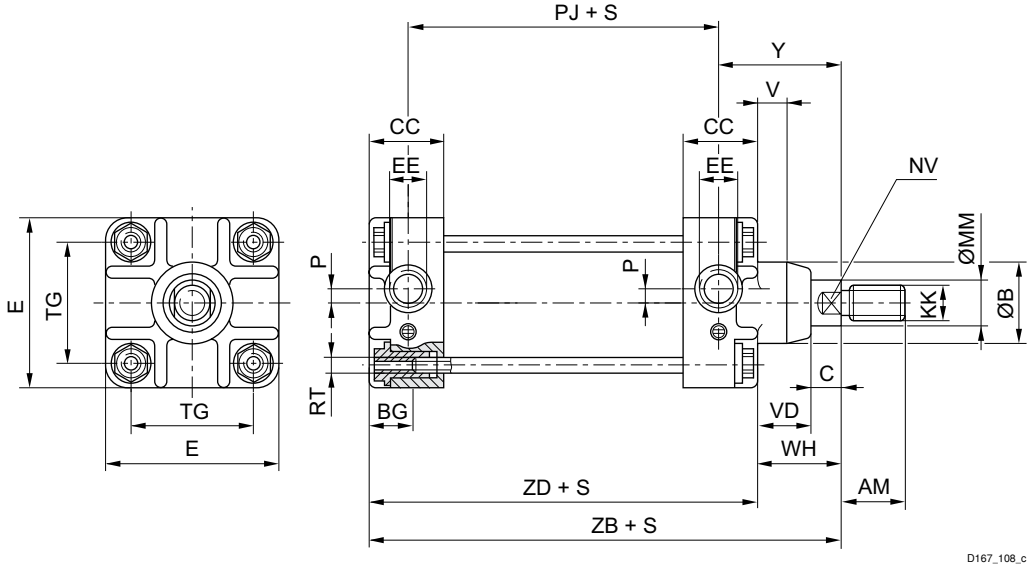
► Ports: G 1/8 - G 1/2 ► double-acting ► with magnetic piston ► Cushioning: pneumatically, adjustable ► Piston rod: external thread

Cushioning diagram



V = velocity [m/s]
m = mass

Dimensions



Piston Ø	AM	Ø B h12	BG	C	CC	E	EE	KK	Ø MM	NV	P	PJ	RT
25	22	23	12	8	20,0	40	G 1/8	M10x1,25	12	10	–	58	M5
32	22	25	12	10	27,5	47	G 1/8	M10x1,25	12	10	4	65	M5
40	24	35	15	13	30,0	56	G 1/4	M12x1,25	16	13	4	69	M6
50	32	40	15	15	30,0	63	G 1/4	M16x1,5	20	17	4	72	M6
63	32	40	19	14	34,0	81	G 3/8	M16x1,5	20	17	6	79	M8
80	40	48	19	16	36,0	95	G 3/8	M20x1,5	25	22	9	86	M8

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 Ø	AM	Ø B h12	BG	C	CC	E	EE	KK	Ø MM	NV	P	PJ	RT
100	40	55	23	16	40,0	115	G 1/2	M20x1,5	25	22	12	100	M10

Piston Ø	TG	TS 1)	V	VD	WH	Y	ZB	ZD
25	27	+2/–1	–	16	24	31	98 ±1,2	74
32	32	+2/–0	5	16	26	41	120 ±1,2	94
40	40	+2/–0	5	20	33	48	132 ±1,2	99
50	46	+2/–0	6	23	38	54	142 ±1,2	104
63	59	+2,5/–0	6	27	41	58	154 ±1,4	113
80	73	+2,5/–0	8	32	48	67	172 ±1,4	124
100	90	+2,5/–0	8	37	53	70	187 ±1,4	134

1) TS = stroke tolerance