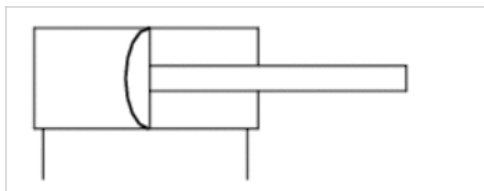


Diaphragm-type cylinder, Series 102

- Ø 80-160 mm
- Ports G 1/4 G 1/2
- double-acting
- Piston rod External thread
- fine thread



Compressed air connection	Internal thread
Working pressure min./max.	2 ... 8 bar
Ambient temperature min./max.	-20 ... 70 °C
Medium temperature min./max.	-20 ... 70 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Pressure for determining piston forces	6 bar
Weight	See table below



Technical data

Piston Ø Piston rod thread Ports	80 mm M12x1,25 G 1/4	113 mm M16x1,5 G 1/4	160 mm M20x1,5 G 1/2
Stroke 40	1021100000	-	-
50	-	1021200000	1021300000

Technical data

Piston Ø	80 mm	113 mm	160 mm
Retracting piston force	2880 N	5800 N	11600 N
Extracting piston force	3000 N	6000 N	12000 N
Spring force min. - max.	-	100 N	-

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).

Diaphragm actuator strokes are tolerance-dependent.

Tolerance at 40 mm , 50 mm , 80 mm stroke: ± 3 mm

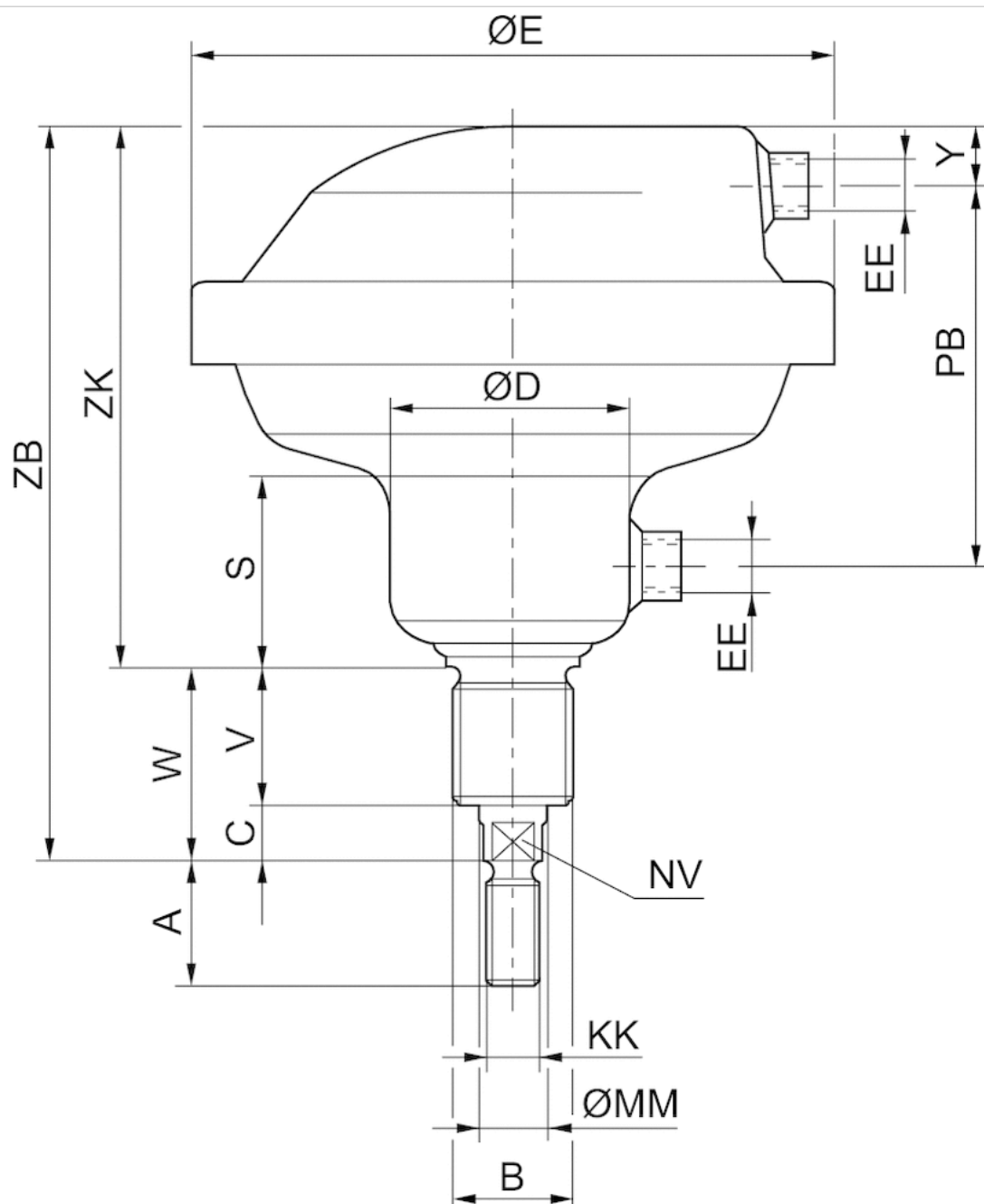
Technical information

Material

Cylinder tube	Steel
Piston rod	Steel
Front cover	Steel
Seal	Acrylonitrile butadiene rubber

Dimensions

Dimensions



Dimensions

Piston Ø	A	B	C	D	E	S	V	W	Y	EE	KK	MM	NV	PB	ZB	ZK
80 mm	24	M24x2	14	55	150	48	38	52	15	G 1/4	M12x1,25	16	13	90	183	131
113 mm	32	M36x3	20	71	195	55	38	58	15	G 1/4	M16x1,5	20	17	107	212	154
160 mm	40	M36x3	20	88	261	58	45	65	26	G 1/2	M20x1,5	25	22	117	243	178

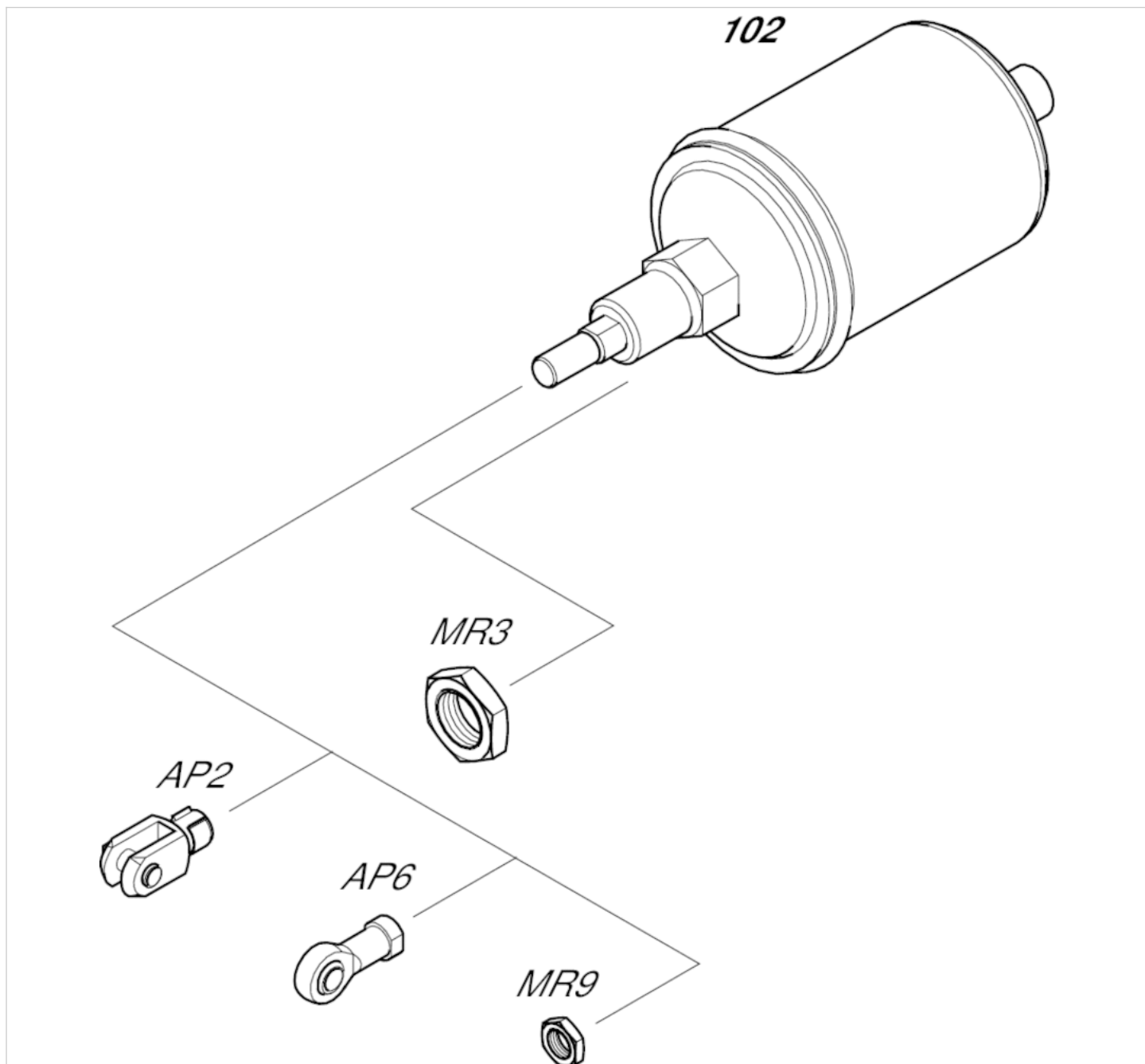
Weight [kg]

Piston Ø	S	Weight kg
80 mm	40	2,6 kg
113 mm	50	5,4 kg
160 mm	50	11,4 kg

S = stroke

Accessories overview

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.

Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



Visit us: [Emerson.com/Aventics](https://emerson.com/aventics)

Your local contact: [Emerson.com/contactus](https://emerson.com/contactus)



Emerson.com



Facebook.com/EmersonAutomationSolutions



LinkedIn.com/company/Emerson-Automation-Solutions



Twitter.com/EMR_Automation

An example configuration is depicted on the title page. The delivered product may thus vary from that in the illustration. Subject to change. This Document, as well as the data, specifications and other information set forth in it, are the exclusive property of AVENTICS GmbH. It may not be reproduced or given to third parties without its consent. Only use the AVENTICS products shown in industrial applications. Read the product documentation completely and carefully before using the product. Observe the applicable regulations and laws of the respective country. When integrating the product into applications, note the system manufacturer's specifications for safe use of the product. The data specified only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgement and verification. It must be remembered that the products are subject to a natural process of wear and aging.

The Emerson logo is a trademark and service mark of Emerson Electric Co. Brand logotype are registered trademarks of one of the Emerson family of companies. All other marks are the property of their respective owners. © 2021 Emerson Electric Co. All rights reserved.
2021-07



CONSIDER IT SOLVED™