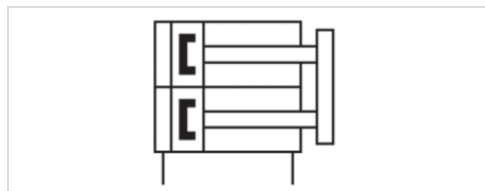


# Double piston cylinder, Series TWC-HL

- Ø 16-25 mm
- double-acting
- with magnetic piston
- Cushioning elastic
- End position lock retracted cylinder



Working pressure min./max.	1,5 ... 7 bar
Ambient temperature min./max.	0 ... 60 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0-1 mg/m <sup>3</sup>
Pressure for determining piston forces	6.3 bar

## Technical data

Piston Ø	16 mm	20 mm	25 mm
Stroke 10	R402000846	R402000854	R402000862
20	R402000847	R402000855	R402000863
30	R402000848	R402000856	R402000864
40	R402000849	R402000857	R402000865
50	R402000850	R402000858	R402000866
60	R402000851	R402000859	R402000867
70	R402000852	R402000860	R402000868
80	R402000853	R402000861	R402000869

## Technical data

Piston Ø 2x	16 mm	20 mm
Port	M5	M5
Retracting piston force	189 N	296 N
Extracting piston force	253 N	395 N
Speed max.	0,5 m/s	0,5 m/s
Max. holding force when locked	95 N	150 N
Max. play with locked end position	1 mm	1 mm
Cushioning energy max.	0,11 J	0,17 J
Weight 10 mm stroke	0,24 kg	0,37 kg

Piston Ø 2x	16 mm	20 mm
+10 mm stroke	0,035 kg	0,05 kg
Cushioning	elastic	elastic
Max. play (radial)	0,6 °	0,6 °
End cover	Polyoxymethylene	Polyoxymethylene

Piston Ø 2x	25 mm
Port	M5
Retracting piston force	475 N
Extracting piston force	618 N
Speed max.	0,5 m/s
Max. holding force when locked	235 N
Max. play with locked end position	1 mm
Cushioning energy max.	0,23 J
Weight 10 mm stroke	0,64 kg
+10 mm stroke	0,052 kg
Cushioning	elastic
Max. play (radial)	0,6 °
End cover	Polyoxymethylene

## 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).

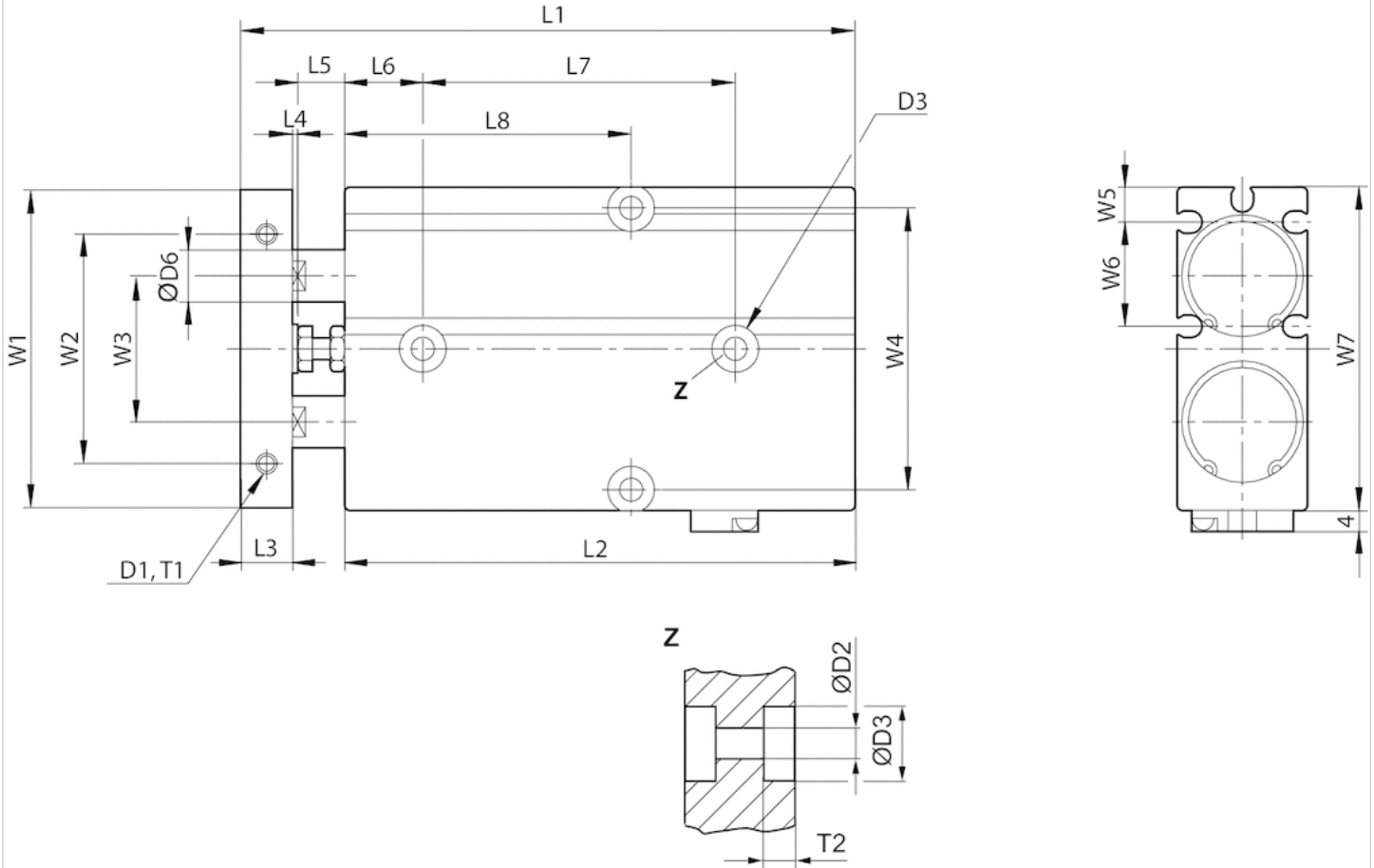
Additional function: end position lock with pressure drop

## Technical information

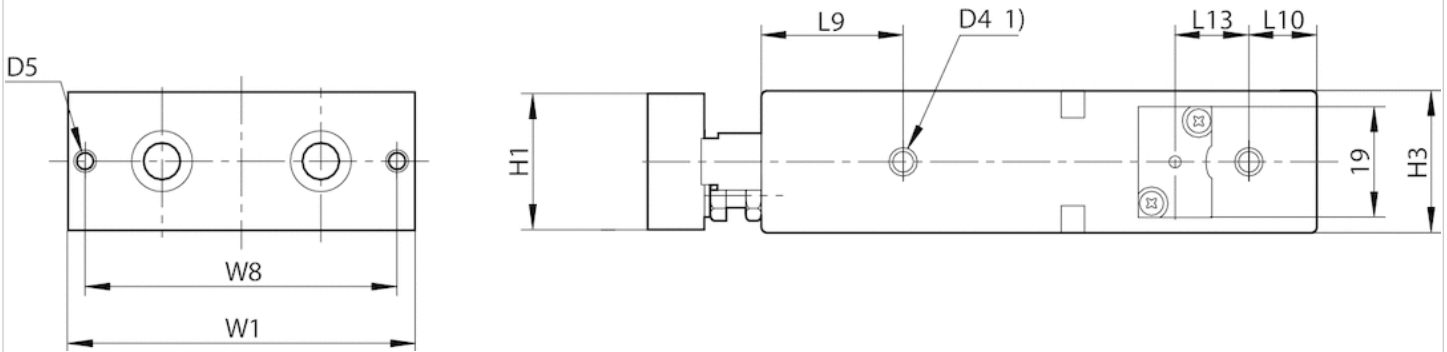
Material	
Housing	Aluminum, anodized
Front plate	Steel, galvanized
Piston rod	Steel, hardened
Seal	Acrylonitrile butadiene rubber
Guide bushing	Aluminum, anodized
Front cover	Steel, nickel-plated
End cover	Polyoxymethylene

# Dimensions

## TWC 16-HL - 25-HL



TWC 16-HL - 25-HL



1) Compressed air connection  
T1 = depth of thread

## Dimensions

Piston Ø	D1	T1	Ø D2	Ø D3	T2	D4	D5	Ø D6	H1	H3	L1 ±0,8 1)	L2 ±0,2 S=10 2)
16 mm	2xM4	5	4,5	8	5,5	M5	2xM4	8	20	21	88	83
20 mm	2xM4	5	4,5	8	5,5	M5	2xM4	10	24	25	98	88
25 mm	2xM5	6	4,5	9	6	M5	2xM4	12	29	30	101	92

Piston Ø	L2 ±0,2 S=20 2)	L2 ±0,2 S=30 2)	L2 ±0,2 S=40 2)	L2 ±0,2 S=50 2)
16 mm	93	103	113	123
20 mm	98	108	118	128
25 mm	102	112	122	132

Piston Ø	L2 ±0,2 S=60 2)	L2 ±0,2 S=70 2)	L2 ±0,2 S=80 2)	L3	L4	L5	L6
16 mm	133	143	153	8	1	6	15
20 mm	138	148	158	10	1	9	15
25 mm	142	152	162	10	1	8	15

Piston Ø	L7 ±0,2 1)	L8 ±0,2 S=10 2)	L8 ±0,2 S=20 2)	L8 ±0,2 S=30 2)
16 mm	40	40	45	50
20 mm	40	40	45	50
25 mm	50	45	50	55

Piston Ø	L8 ±0,2 S=40 2)	L8 ±0,2 S=50 2)	L8 ±0,2 S=60 2)	L8 ±0,2 S=70 2)
16 mm	55	60	65	70
20 mm	55	60	65	70
25 mm	60	65	70	75

Piston Ø	L8 ±0,2 S=80 2)	L9	L10	L13	W1	W2 ±0,2	W3	W4 ±0,2	W5	W6	W7	W8 ±0,2
16 mm	75	22	10	13	53	34	24	47	5.7	18.5	54	47
20 mm	75	25	12	13	61	44	28	55	6.8	20	62	55
25 mm	80	30	12	10	72	56	34	66	8.3	22.5	73	66

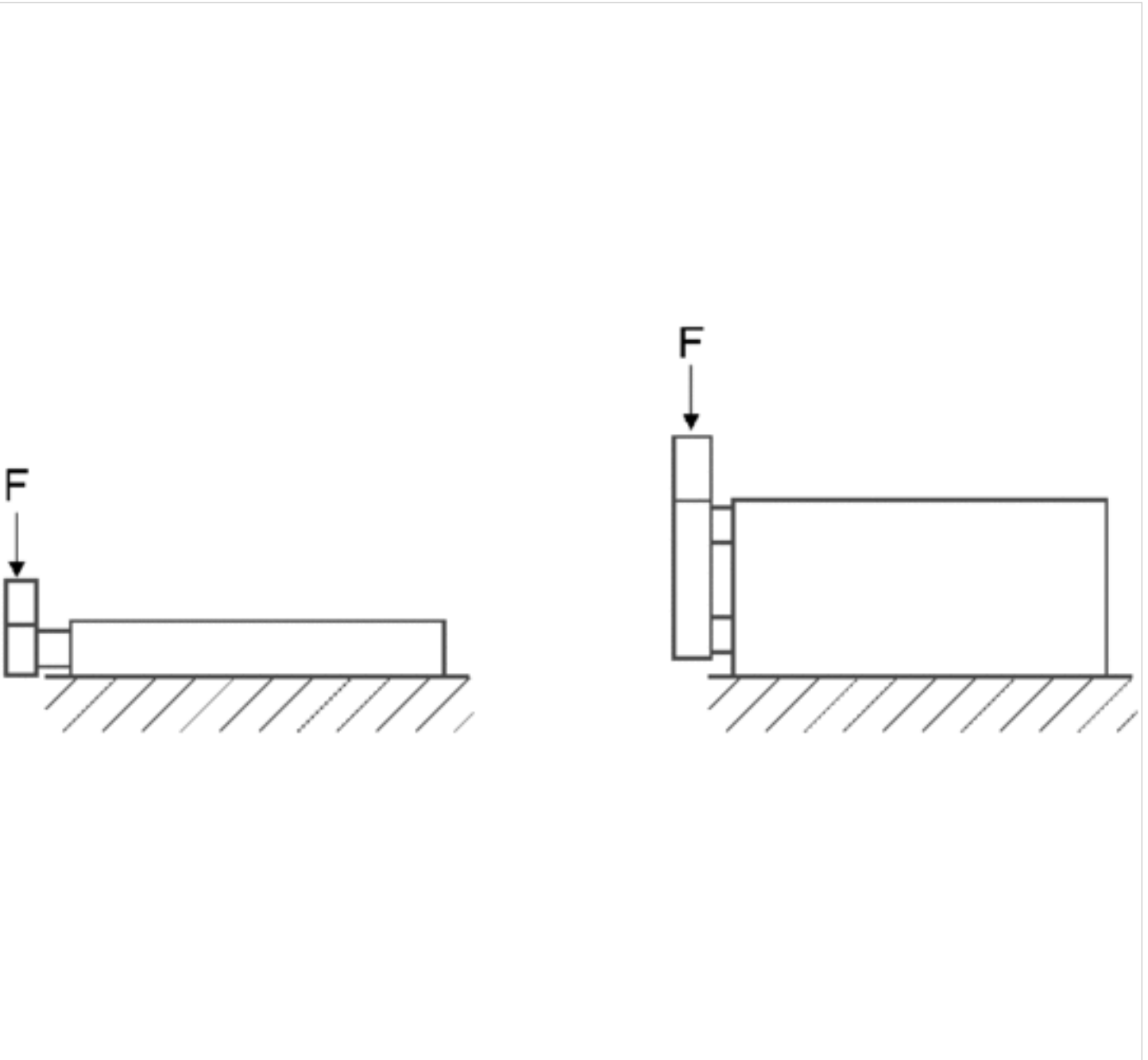
S = stroke

1) + Stroke

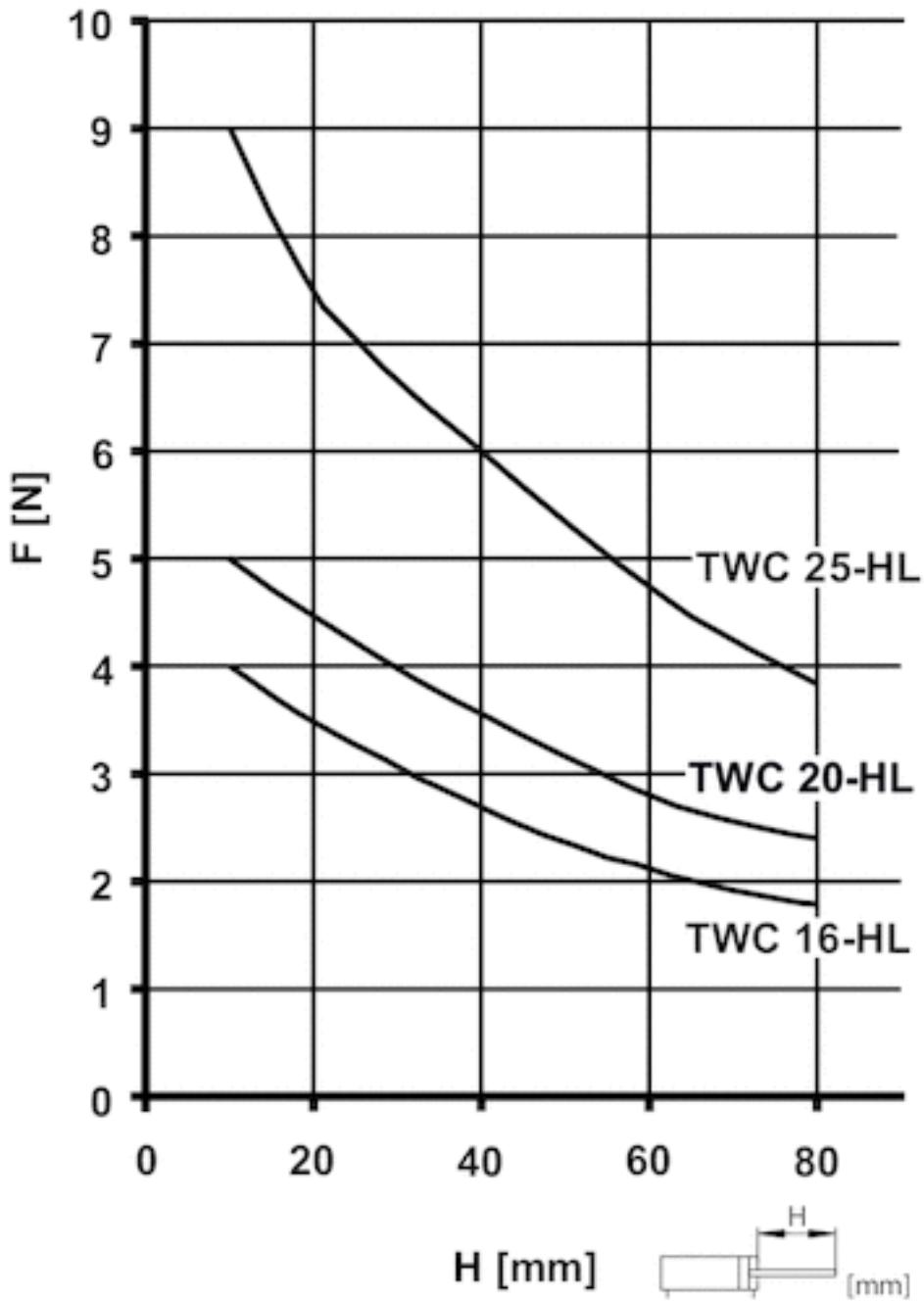
2) Dimensions for corresponding stroke

## Diagrams

### Max. transverse force $F$ depending on the stroke length

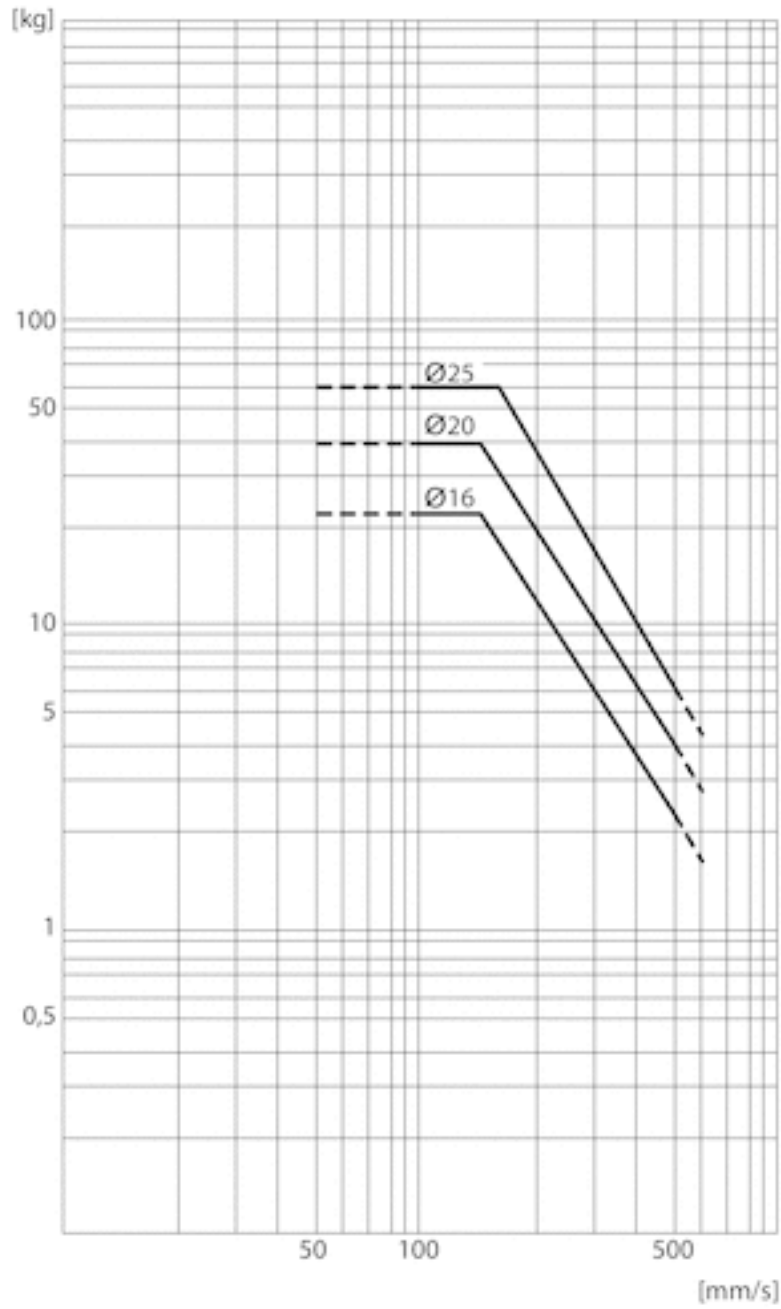


Ø 16 mm ... 25 mm





Maximum permissible moving mass depending on the impact speed





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