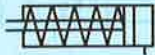
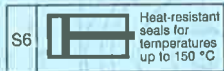


Short stroke cylinder,
single acting
with return spring

Type AVL-...



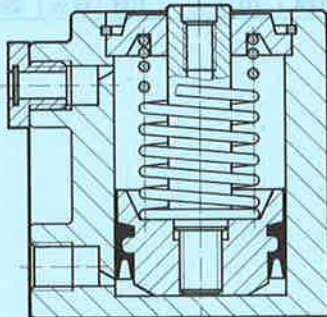
Special designs:



Heat-resistant seals for temperatures up to 150 °C

These piston cylinders are particularly suited for clamping work with short strokes, e.g. in fixtures. They are characterized by:

- rapid response after application of pressure
- large clamping forces in relation to their size



Type AVL-12-10
AVL-20-10
AVL-20-25



AVL-32-25
AVL-50-25
AVL-63-25
AVL-80-25
AVL-100-25



3

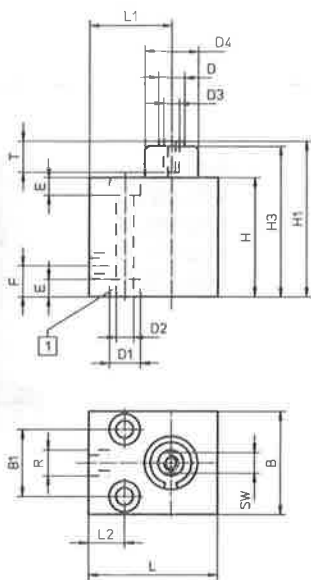
Permissible weight acting on piston rod

If the piston runs against a stop at full stroke, the weight acting on the piston rod must not exceed the values opposite.	Type	Weight
	AVL- 20-10-A	max. 75 g
	AVL- 20-25-A	max. 75 g
	AVL- 32-25-A	max. 100 g
	AVL- 50-25-A	max. 200 g
	AVL- 63-25-A	max. 250 g
	AVL- 80-25-A	max. 300 g
AVL-100-25-A	max. 600 g	

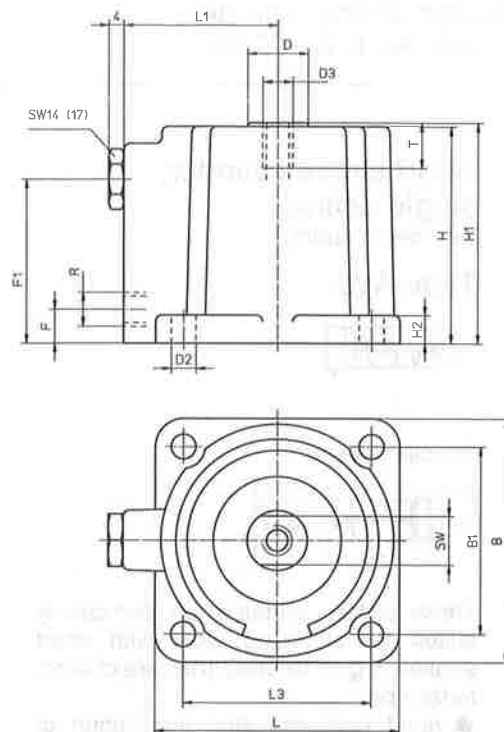
Order code (see overleaf)				Part No. + AVL + piston dia. + stroke length							
Medium				Compressed air, filtered (lubricated or unlubricated)							
Design				Piston cylinder							
Max. permissible operating pressure				8 bar							
Temperature range				- 20 to + 80 °C							
Materials				Housing: anodized aluminium (dia. 12 and 20); die-cast aluminium, brass (dia. 32 to 63); piston rod: stainless steel; seals: perbunan							
Order code				Piston dia. mm	Stroke length mm	Clamping force at 6 bar N	Min. spring return force* N	Conne- ction	Weight kg		
Standard design		Special design S6									
Part. No.	Type		Type			(≈ kp)	(≈ kp)				
9698	AVL-12-10	14 773	AVL-12-10-S6	12	10	58 (5.8)	4.7 (0.47)	M5	0.035		
9700	AVL-20-10	14 776	AVL-20-10-S6	20	10	170 (17)	5.9 (0.59)	G ¹ / ₈	0.120		
13796	AVL-20-25	14 777	AVL-20-25-S6	20	25	170 (17)	5.9 (0.59)	G ¹ / ₈	0.170		
9702	AVL-32-25	14 782	AVL-32-25-S6	32	25	440 (44)	19.1 (1.91)	G ¹ / ₈	0.220		
9774	AVL-50-25	14 786	AVL-50-25-S6	50	25	1060 (106)	41.7 (4.17)	G ¹ / ₈	0.375		
9780	AVL-63-25	14 790	AVL-63-25-S6	63	25	1720 (172)	51.3 (5.13)	G ¹ / ₈	0.550		
8657	AVL-80-25	14 792	AVL-80-25-S6	80	25	2870 (287)	84.5 (8.45)	G ¹ / ₄	—		
8658	AVL-100-25	14 794	AVL-100-25-S6	100	25	4420 (442)	140 (14)	G ¹ / ₄	—		

* Theoretical values

Typ AVL-12-10
 AVL-20-10
 AVL-20-25



AVL- 32-25
 AVL- 50-25
 AVL- 63-25
 AVL- 80-25
 AVL-100-25



① Lower counterbore only on AVL-20-25

Typ	B	B ₁	D ∅	D ₁ ∅	D ₂ ∅	D ₃	D ₄	E	F	F ₁	H	H ₁	H ₂	H ₃	L	L ₁	L ₂	L ₃	R	SW	T
AVL- 12-10	20	13	5	6	3,4	-	10,5	3,4	6	-	23	30	-	29	25	16	7	-	M5	-	-
AVL- 20-10	32	20	10	10	5,5	M 5	-	5,7	10,5	-	32	33	-	-	40	24	9	-	G 1/8	8	8
AVL- 20-25	32	20	10	10	5,5	M 5	-	5,7	10,5	-	57	58	-	-	40	24	9	-	G 1/8	8	11
AVL- 32-25	45	32	12	-	5,5	M 6	-	-	9,5	43,5	57,5	58,5	6	-	48	32	-	36	G 1/8	10	12
AVL- 50-25	65	50	16	-	6,6	M 8	-	-	9	43,5	57,5	58,5	7,5	-	65	41	-	50	G 1/8	13	12
AVL- 63-25	80	62	16	-	9	M 8	-	-	9,5	44,5	60,5	62,5	7,5	-	80	47	-	62	G 1/8	13	14
AVL- 80-25	100	82	20	-	9	M 10	-	-	11	46	67	68	10	-	100	60	-	82	G 1/4	17	16
AVL-100-25	124	103	25	-	10,5	M 12	-	-	12	51	74,5	75,5	12	-	124	70	-	103	G 1/4	22	20

Short-stroke cylinder
with return spring

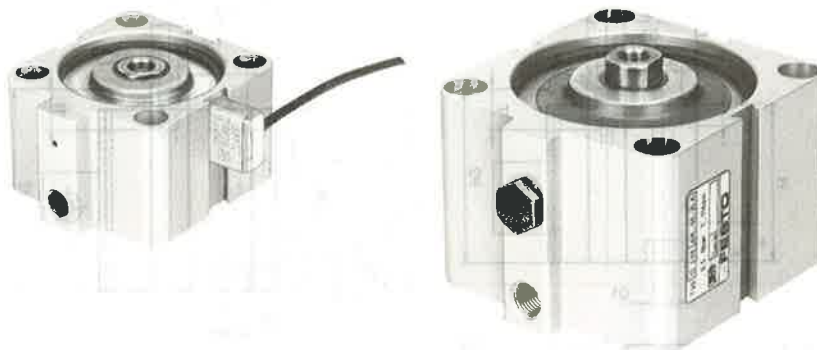
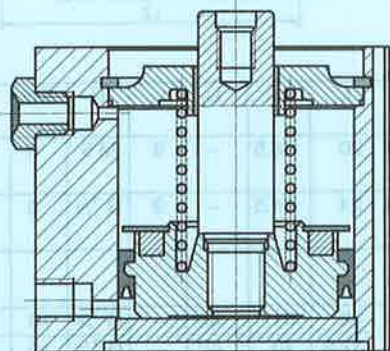
Type AVL-...-A



These short-stroke piston cylinders are particularly suited for clamping work with short strokes, e.g. in fixtures. They are characterized by:

- Rapid response after application of pressure
- Large clamping forces in relation to their size.

There is a permanent magnet on the cylinder piston, the magnetic field of which is used to actuate reed or inductive type proximity switches.



3

One or more proximity switches can be clamped in position in the longitudinal dovetail groove. These switches permit non-contact sensing of the end or intermediate positions of the cylinder.

Proximity switches see sheet 1.350

Max. permissible weight acting on piston rod.

If the piston runs against the bearing cover at full stroke, the load attached to the piston rod must not exceed the following values.	Type	Weight Load
	AVL- 16-...-A	max. 50 g
	AVL- 20-...-A	max. 75 g
	AVL- 25-...-A	max. 75 g
	AVL- 32-25-A	max. 100 g
	AVL- 40-25-A	max. 150 g
	AVL- 50-25-A	max. 200 g
	AVL- 63-25-A	max. 250 g
	AVL- 80-25-A	max. 300 g
	AVL-100-25-A	max. 600 g

Order code	Part No. + AVL + piston dia. + stroke length + proximity sensing
Medium	Compressed air, filtered (lubricated or unlubricated)
Design	Piston cylinder
Max. permissible operating pressure	8 bar
Temperature range	- 20 to +60 °C (observe range of application of proximity switch)
Materials	Housing: anodized aluminium; Bearing cap: plastic (dia. 50, 63, 80, 100 mm: die-cast aluminium) Piston rod: stainless steel (dia. 16, 20, 25 mm: Al); Seals: perbunan

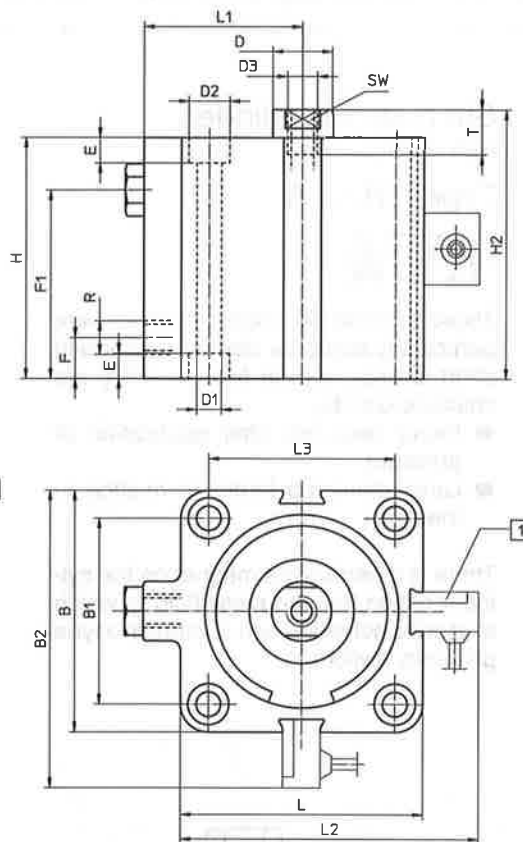
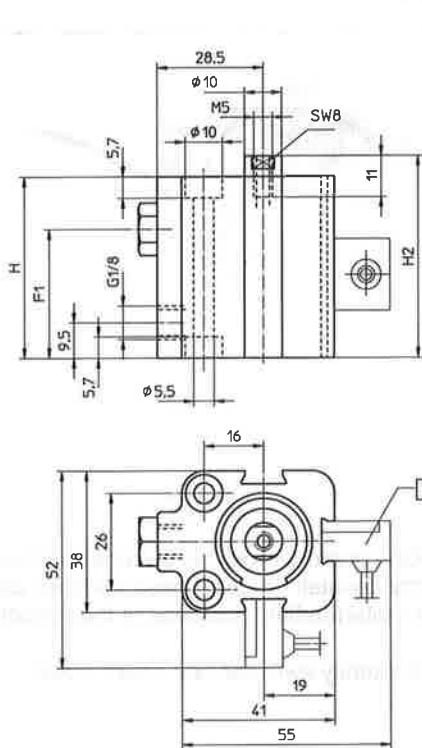
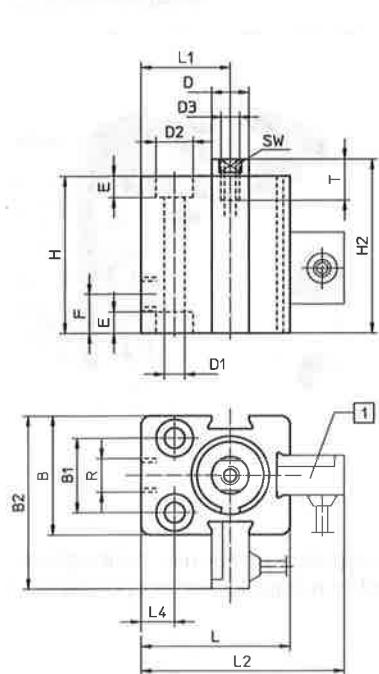
Order code	Piston dia.	Stroke length	Clamping force at 6 bar	Min. spring return force*	Conne- ction	Weight
Part No. Type	mm	mm	N (≈ kp)	N (≈ kp)		kg
14 905 AVL- 16-10-A	16	10	108 (10.8)	6 (0.6)	M 5	0.085
14 906 AVL- 16-25-A	16	25	108 (10.8)	6 (0.6)	M 5	0.125
12 495 AVL- 20-10-A	20	10	170 (17)	5.9 (0.59)	G 1/8	0.130
13 576 AVL- 20-25-A	20	25	170 (17)	5.9 (0.59)	G 1/8	0.170
14 910 AVL- 25-10-A	25	10	260 (26)	14 (1.4)	G 1/8	0.200
14 911 AVL- 25-25-A	25	25	260 (26)	14 (1.4)	G 1/8	0.260
13 280 AVL- 32-25-A	32	25	440 (44)	19 (1.9)	G 1/8	0.320
14 916 AVL- 40-25-A	40	25	720 (72)	17.3 (1.73)	G 1/8	0.420
12 497 AVL- 50-25-A	50	25	1060 (106)	41 (4.1)	G 1/8	0.580
13 281 AVL- 63-25-A	63	25	1720 (172)	51 (5.1)	G 1/8	0.860
12 498 AVL- 80-25-A	80	25	2870 (287)	84 (8.4)	G 1/4	1.420
13 282 AVL-100-25-A	100	25	4420 (442)	140 (14)	G 1/4	2.375

* Theoretical values

Type AVL-16-...-A
AVL-20-...-A

Type AVL-25-...-A

Type AVL-...-A



1 Reed switch Type SME-3-...
Inductive switch Type SMT-3

Type	B	B ₁	B ₂	D ∅	D ₁ ∅	D ₂ ∅	D ₃	E	F	F ₁	H	H ₂	L	L ₁	L ₂	L ₃	L ₄	R	SW	T	
AVL- 16-10-A	28	18	42.5	8	4.5	8	M 4	4.6	6	-	42	46.5	34	20	48.5	-	8	M 5	6	8	
AVL- 16-25-A											63	67.5									
AVL- 20-10-A	32	20	46.5	10	5.5	10	M 5	5.7	10.5	-	42	46.5	40	24	54.5	-	9	G 1/8	8	11	
AVL- 20-25-A											63	67.5									
AVL- 25-10-A										34.5	48.5	54									
AVL- 25-25-A										47	64.5	70									
AVL- 32-25-A	45	32	59.5	12	5.5	10	M 6	5.7	9.5	47	64.5	70	48	32	61	36	-	G 1/8	10	12	
AVL- 40-25-A	55	42	70	12	5.5	10	M 6	5.7	11	50	64.5	71	55	37.5	70	42	-	G 1/8	10	12	
AVL- 50-25-A	65	50	80	16	6.6	11	M 8	6.8	11	50.5	64.5	72	65	42.5	80	50	-	G 1/8	13	12	
AVL- 63-25-A	80	62	94	16	9	15	M 8	9	11	52.3	67	73.5	80	47.5	94	62	-	G 1/8	13	14	
AVL- 80-25-A	100	82	113	20	9	15	M 10	9	12.5	54.3	71	79	100	60	113	82	-	G 1/4	17	16	
AVL-100-25-A	124	103	135.5	25	11	18	M 12	11	12.5	61	81	91	124	72	135.5	103	-	G 1/4	22	20	