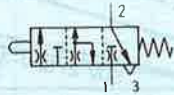


Limit valve
with stem control
Type SDV-...



Mounting block
Type SDA-...-B (see overleaf)

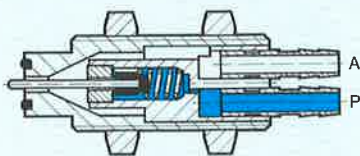
Back pressure valves are used as limit switches and fixed stops for travel-dependent signalling.

They are particularly suitable for end position sensing and position checking when a high degree of accuracy and where low actuating forces are called for. Small dimensions enable them to be used in places where mounting space is limited. Also they are suitable in conditions of varying ambient temperatures and where there is heavy accumulation of dirt.

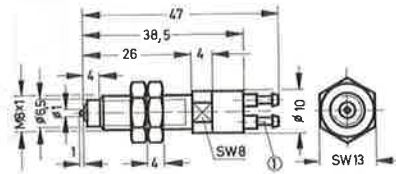
The valve is supplied with compressed air via port P (black).

In the non-actuated state, a sealing plunger closes the nozzle at inlet P. When the plunger is actuated, compressed air escapes until the nozzle outlet is closed. At outlet A a signal will then build up to the level of the supply pressure.

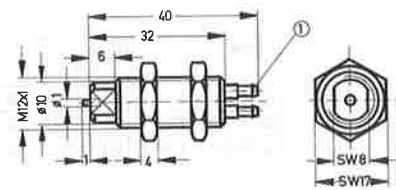
There is thus only low air consumption within the stem actuation range of 1 mm. The permissible contact force, however, should be observed.



Type SDV-2-B



Type SDV-3



7

① Barbed fitting for 3 mm plastic tubing
Port P black, A yellow

1 (P) = Supply port
2 (A) = Outlet line
3 (R) = Exhaust

Permissible contact force

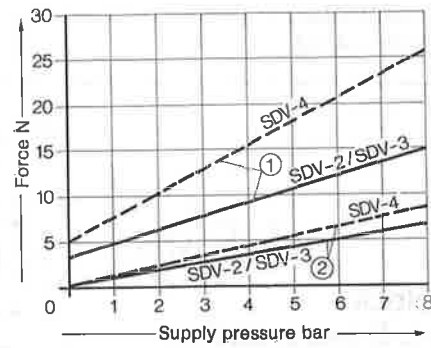
Type	Screwed into SDA and locked ($v = < 10$ mm/s)	Through-hole with 2 mounting nuts ($v = < 10$ mm/s)
SDV-2	1000 N (100 kp)	500 N (50 kp)
SDV-3	4500 N (450 kp)	2000 N (200 kp)

Order code	Valve	9830 SDV-2-B	6208 SDV-3	
Part No./Type	Mounting block	11542 SDA-8 x 1-B	11541 SDA-12 x 1-B	
Medium	Compressed air (filtered, unlubricated)			
Design	Poppet valve, with overlap			
Mounting		M 8 x 1 with mounting nuts	M 12 x 1 with mounting nuts	
Installation dia.		8.5 mm	12.5 mm	
Connection	Barbed fitting for 3 mm tubing			
Nominal size	2.5 mm (restrictor 0.5 mm)			
Supply pressure range at P	0 to 8 bar			
Signal pressure range at A	0 to supply pressure			
End position accuracy	± 0.05 mm			
Closing force	See graph overleaf			
Ambient temperature	- 10 to + 80 °C*			
Medium temperature	- 10 to + 80 °C			
Materials	Stainless steel (end face hardened); seals: perbunan			
Weight	Valve	0.016 kg	0.020 kg	
	Mounting block	0.050 kg	0.180 kg	

* Depending on tubing used

Actuating and closing force as a function of the supply pressure

- ① Closing force =
Force required to build up 90% of the supply pressure at outlet A
- ② Actuating force =
Force required to open the stem (included in the closing force)



1 N \approx 0.1 kp

Mounting block, Type SDA-... for mounting type SDV... valves.



Type	B ₁	B ₂	D ₁	D ₂ dia.	D ₃ dia.	D ₄ dia.	H ₁	H ₂	L ₁	L ₂	L ₃ P9	T ₁	T ₂
SDA- 8 x 1	20	10	M 8 x 1	8	4.4	3.8	15	7.5	28	18	4	4	1.5
SDA-12 x 1-B	27	14	M 12 x 1	11	6.6	5.8	20	10	40	27	6	6.8	2
SDA-22 x 1.5	50	28	M 22 x 1.5	20	14	11.8	35	20	70	46	12	13	3.2

