

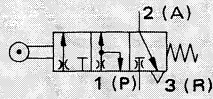
Mechanically Actuated Limit Valves

Back Pressure Sensors, Barbed Fittings for 3 mm Tubing

Limit Valve

with Ball Actuator Spring Return

Type SDK-3-PK-3
SDK-4-PK-3



Mounting Block

Type SDA-...-B

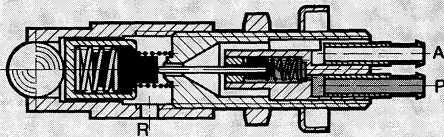
These valves are used as limit switches and end stops. They can be actuated by a perpendicular force (end stop) or a force parallel to the face.

They are especially suited for limit sensing and end position control where a high degree of accuracy is required. A ball actuates the valve's movable stem.

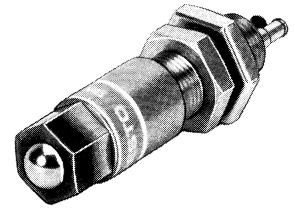
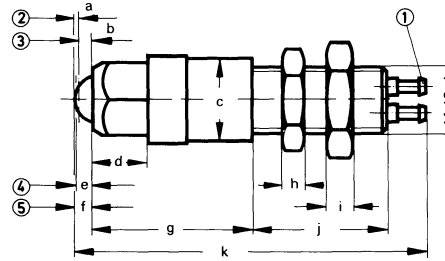
When not in operation, a seat closes the nozzle at inlet P. When the ball is actuated, compressed air escapes to atmosphere until the nozzle outlet is closed. A signal at outlet A then increases to supply pressure.

The permissible impact force must not be exceeded.

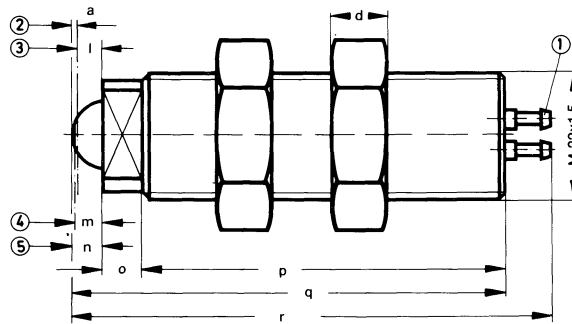
Example: Type SDK-3-PK-3



Type SDK-3-PK-3



Type SDK-4-PK-3



Dimensions

a	0.03 in / 0.8 mm
b	0.09 in / 2.3 mm
c	0.59 in / 15 mm
d	0.39 in / 10 mm
e	0.12 in / 3 mm
f	0.12 in / 3.1 mm
g	1.14 in / 29 mm
h	0.16 in / 4 mm
i	0.18 in / 4.5 mm
j	0.96 in / 24.5 mm
k	2.51 in / 63.8 mm
l	0.15 in / 3.9 mm
m	0.18 in / 4.7 mm
n	0.19 in / 4.8 mm
o	0.28 in / 7 mm
p	2.46 in / 62.5 mm
q	2.43 in / 74.5 mm
r	3.25 in / 82.5 mm

- ① Barbed fittings for 3 mm plastic tubing
- ② Free play
- ③ Overtravel
- ④ Travel
- ⑤ Rest position

- 1 (P) = Supply (Black)
- 2 (A) = Outlet (Yellow)
- 3 (R) = Exhaust

Permissible Impact Force

Type	Threaded Into SDA and secured by jam nut ($V < 0.4$ in/s / 10 mm/s)	Through-hole with 2 securing jam nuts ($V < 0.4$ in/s / 10 mm/s)
SDK-3-PK-3	1011 lbf / 4500 N	500 lbf / 2000 N
SDK-4-PK-3	5395 lbf / 24000 N	2697 lbf / 12000 N

Order Number	Valve	8714 SDK-3-PK-3	10033 SDK-4-PK-3
Part No./Type	Mounting block	11541 SDA-12 x 1-B	11543 SDA-22 x 1.5-B
Medium		Compressed air (filtered, lubricated or unlubricated)	
Design		Seat valve, subject to crossover	
Mounting		M 12 x 1 with mounting nuts	M 22 x 1.5 with mounting nuts
Fitting diameter		0.49 in / 12.5 mm	0.88 in / 22.5 mm
Connection		Barbed fittings for 3 mm tubing	
Orifice size		0.09 in / 2.5 mm (restricted orifice 0.02 in / 0.5 mm)	
C_v factor		0.016 C_v / 16 l/min	
Supply pressure range at P*		0 to 120 psi / 0 to 8 bar	
Signal pressure range at A		0 to supply pressure	
End stop accuracy		± 0.001 in / 0.03 mm	
Actuating force at 90 psi / 6 bar		2.7 lbf / 12 N	3.82 lbf / 17 N
Closing force at 90 psi / 6 bar		5.62 lbf / 25 N	6.74 lbf / 30 N
Materials		Stainless steel. Seals: Buna N	
Weight	Valve	0.110 lb / 0.050 kg	
	Mounting block	0.396 lb / 0.180 kg	1.05 lb / 0.480 kg

* 14 to +176°F / -10 to +80°C, depending on the tubing used.