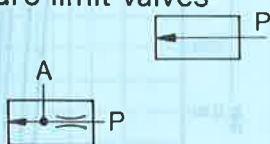


## Back pressure limit valves Type SD-2

### Type SD-3



## Barbed Y connector with restrictor

### Type Y-PK-3-D



## Mounting block for sensor Type SDA-12 x 1-B

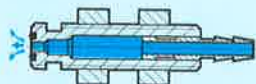
Back pressure limit valves are used as a limit switch and fixed stop for travel-dependent signalling.

In conjunction with the sender SML-40 S (sheet 2.340), Type SD-3 can be used as an air barrier.

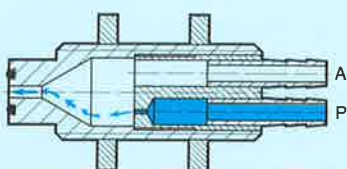
They are particularly suitable for end position sensing and position checking when a high degree of accuracy and low actuating forces are called for. Small dimensions enable them to be used in places which are difficult to get at, at varying ambient temperatures and where there is heavy accumulation of dirt.

The mounting block, Type SDA-12 x 1, serves as an end stop.

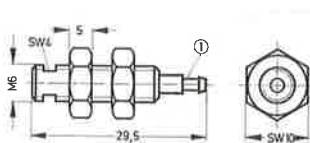
### Type SD-2



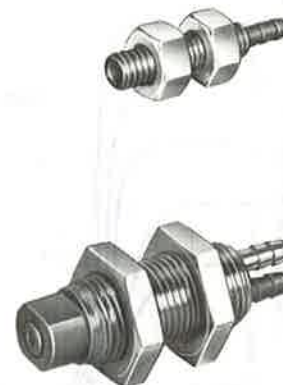
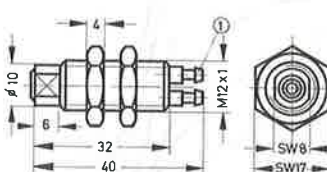
### Type SD-3



### Type SD-2



### Type SD-3



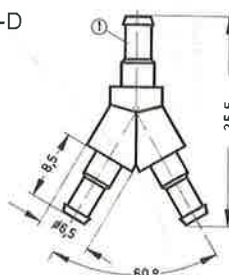
The back pressure limit valves are supplied with compressed air via port P (black). The air escapes when the port is open. By closing the nozzle, a signal is built up at outlet A (yellow) with a pressure up to the level of the supply pressure. This signal is present when the nozzle is closed. The signal pressure must correspond to the required actuating pressure of the downstream element.

The back pressure limit valve, Type SD-2, is used with separate supply air restriction. For this purpose, the barbed Y connector with restrictor, Type Y-PK-3-D, can be used (port P with 0.4 mm restrictor is coloured black, port A is coloured yellow).

In order to reduce air consumption it is recommended

- to only supply the back pressure nozzle with compressed air when a signal is to be given and
- to install a flow control valve in the air supply line P if P is greater than 3 bar.

### Type Y-PK-3-D



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

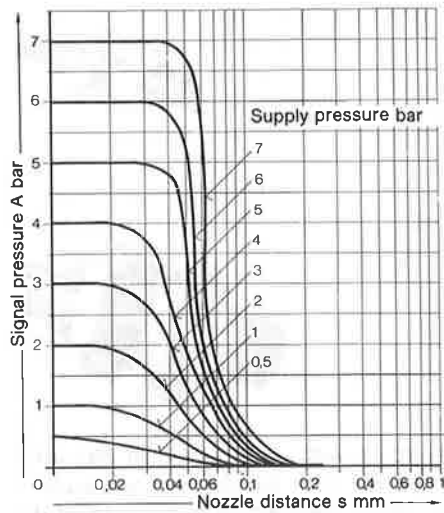
- 1 (P) = Supply port  
2 (A) = Outlet line

Order code	Part No./Type	7455 SD-2	4498 SD-3	7456 Y-PK-3-D	11541 SDA-12 x 1-B
Medium		Compressed air (filtered, lubricated or unlubricated)			
Design		Nozzle, without moving parts			
Mounting		M 6 with mounting nuts	M 12 x 1 with mounting nuts		Throughholes
Installation dia.		6.5 mm	12.5 mm		
Connection		Barbed fitting for 3 mm tubing			
Nominal size		2.5 mm (restrictor 0.4 mm)			
Supply pressure range at P		0 to 8 bar			
Signal pressure range at A		See graphs overleaf			
Air consumption		See overleaf			
Min. closing force	N	0.615 x supply pressure (bar)	0.83 x supply pressure (bar)		
Ambient temperature		-40 to +100 °C*			
Medium temperature		-10 to +60° C			
Materials		Stainless steel (end face hardened), brass; seals: perbunan		Brass, plastic	Galvanised steel
Weight		0.007 kg	0.020 kg	0.005 kg	0.120 kg

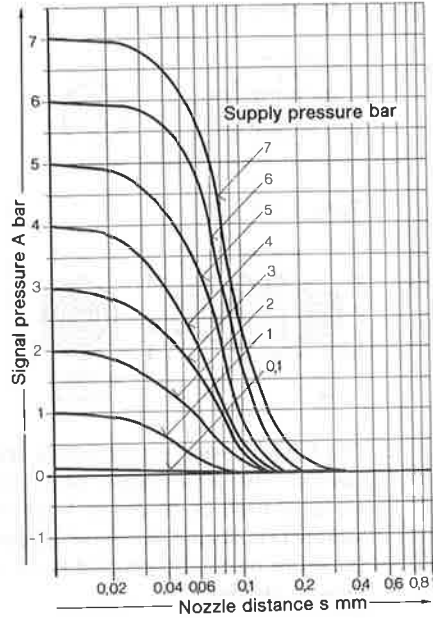
\* depending on tubing used

## Signal pressure as a function of the nozzle distance and supply pressure with back pressure end stop

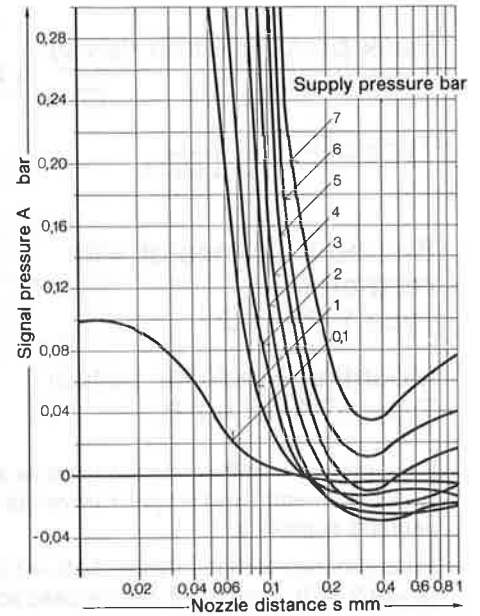
Type SD-2



SD-3  
(Graph 1)

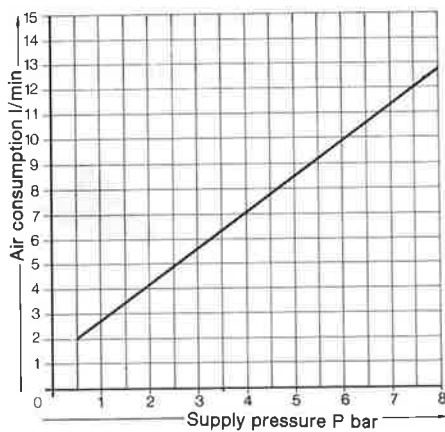


SD-3  
(Detail from graph 1)

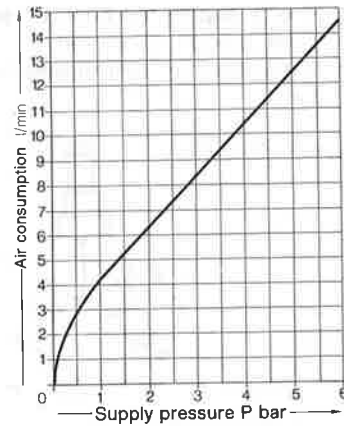


## Air consumption as a function of the supply pressure with back pressure end stop

Type SD-2 with Y-PK-3-D



SD-3



## Mounting block, Type SDA for back pressure end stops SD and SDV



Type SDA-12 × 1-B

