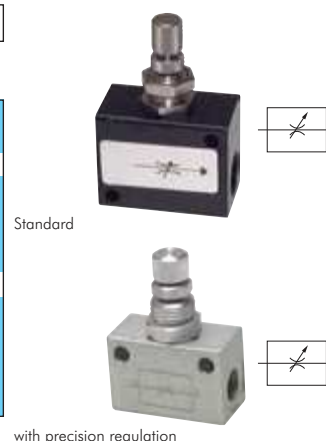


Choke valves

Temperature range: 0°C to +60°C
Operating pressure: 0 to 10 bar

Type	Type for food industry	Connection Thread	Thread for panel mounting	Flow	Type fastening nut
Standard choke valves					
DV 18	---	G 1/8"	M 12 x 0.75	5 - 80 l/min.	GM 12075 MSV**
DV 14	---	G 1/4"	M 12 x 0.75	8 - 435 l/min.	GM 12075 MSV**
DV 38	---	G 3/8"	M 18 x 1	10 - 820 l/min.	GM 181 MSV**
DV 12	---	G 1/2"	M 18 x 1	15 - 1450 l/min.	GM 181 MSV**
Choke valves with precision regulation					
DV 25 E	---	M 5	M 10 x 1	0 - 80 l/min.	GM 101 MSV
DV 18 E	DV 18 MS*	G 1/8"	M 12 x 1	0 - 125 l/min.	GM 121 MSV
DV 14 E	DV 14 MS*	G 1/4"	M 20 x 1.5	0 - 550 l/min.	GM 2015 MSV
DV 38 E	---	G 3/8"	M 24 x 1.5	0 - 1050 l/min.	GM 2415 MSV
DV 12 E	---	G 1/2"	M 24 x 1.5	0 - 2000 l/min.	GM 2415 MSV

* valve insert and spindle from brass, ** fastening nut included in the scope of delivery



Needle shut-off valves with bulkhead threads for panel mounting

PN 18

Materials: Housing: Brass nickel-plated, seal: NBR
Temperature range: -10°C to max. +80°C
Switch panel mounting: For borehole diameter Ø 14.5 mm

Type	Thread	DN	L	H	E _{max}
NADEL 18 MSV	G 1/8"	4	51.6	64	3
NADEL 14 MSV	G 1/4"	4	57.0	64	3
NADEL 38 MSV	G 3/8"	8	63.0	90	10
NADEL 12 MSV	G 1/2"	8	69.0	90	10



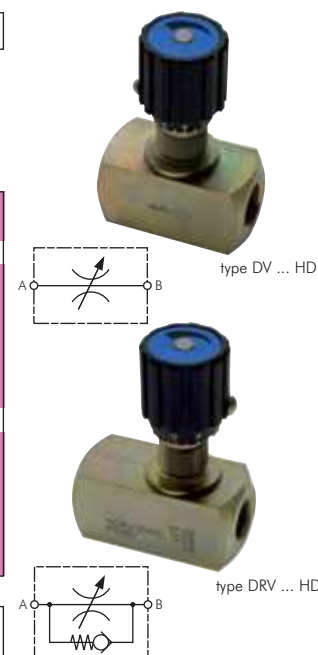
Flow control and one-way control valves

PN 350

Suitable: Bidirectional flow control valves and one-way flow control valves influence the volume flow rate via an adjustable cross section constriction and are used to adjust the speed of cylinders or motors.

Materials: Valve body: Zinc-plated steel, rotary knob: Polyamide, seals: NBR
Temperature range: -20°C to max. +80°C
Operating pressure: Max. 350 bar
Media: Hydraulic oils on the basis of mineral oil

Type	Connection thread	Practical flow quantity	Max. flow quantity	Free reflux B - A at 5 bar pressure drop	Type installation set for panel mounting
Choke valves					
DV 18 HD	G 1/8"	10 l/min	14 l/min	---	DV EINBAUSET 18
DV 14 HD	G 1/4"	15 l/min	60 l/min	---	DV EINBAUSET 1438
DV 38 HD	G 3/8"	20 l/min	75 l/min	---	DV EINBAUSET 1438
DV 12 HD	G 1/2"	40 l/min	150 l/min	---	DV EINBAUSET 1234
DV 34 HD	G 3/4"	60 l/min	180 l/min	---	DV EINBAUSET 1234
DV 10 HD	G 1"	150 l/min	400 l/min	---	DV EINBAUSET 10
One-way control valves					
DRV 18 HD	G 1/8"	10 l/min	20 l/min	25 l/min	DV EINBAUSET 18
DRV 14 HD	G 1/4"	15 l/min	50 l/min	45 l/min	DV EINBAUSET 1438
DRV 38 HD	G 3/8"	20 l/min	60 l/min	65 l/min	DV EINBAUSET 1438
DRV 12 HD	G 1/2"	25 l/min	90 l/min	100 l/min	DV EINBAUSET 1234
DRV 34 HD	G 3/4"	60 l/min	180 l/min	140 l/min	DV EINBAUSET 1234
DRV 10 HD	G 1"	150 l/min	300 l/min	270 l/min	DV EINBAUSET 10



Needle shut-off valves with hand wheels

up to 400 bar

Materials: Housing: Zinc-plated steel or stainless steel AISI 316Ti, seal: Graphite (type AISI 316Ti: PTFE), hand wheel: Pressed plastic
Temperature range: -30°C to max. +350°C (type AISI 316Ti: -30°C to max. +250°C)

Type Zinc-plated steel	Type AISI 316Ti INOX	Thread	DN	L	KV value*	PN
NADEL 18 HR	NADEL 18 HR ES	G 1/8"	4	45	4 l/min	400 bar
NADEL 14 HR	NADEL 14 HR ES	G 1/4"	5	55	8 l/min	400 bar
NADEL 38 HR	NADEL 38 HR ES	G 3/8"	6	55	10 l/min	400 bar
NADEL 12 HR	NADEL 12 HR ES	G 1/2"	7	60	12 l/min	400 bar
NADEL 34 HR	NADEL 34 HR ES	G 3/4"	9	75	18 l/min	200 bar
NADEL 10 HR	NADEL 10 HR ES	G 1"	12	100	32 l/min	200 bar
NADEL 114 HR	NADEL 114 HR ES	G 1 1/4"	15	110	60 l/min	160 bar
NADEL 112 HR	NADEL 112 HR ES	G 1 1/2"	22	130	115 l/min	120 bar
NADEL 20 HR	NADEL 20 HR ES	G 2"	22	130	130 l/min	120 bar

* water flow rate at +20°C, 1 bar pressure at the valve inlet, free discharge.

Air flow [l/min] $\approx 13.4 \cdot K_v \cdot \sqrt{P_{input} - P_{output}}$ (P_{input} and P_{output} are absolute values in bar.)

All data are considered to be unbinding reference values. We accept no liability for data selection that is not confirmed in writing. Pressure data refer, if not otherwise indicated, to liquids of Group II at +20°C.

