

2/2-way valves DN 15 to DN 50

For neutral gases and liquids

Pressure actuated by external fluid

Seat valves

Internal threads G 1/2 to G 2 or 1/2 NPT to 2 NPT

Operating pressure (see table)

84500

84510

Description (standard valve)

Switching function:	normally closed
Flow direction:	determined
Mounting position:	as required

Flow fluid range

Fluid temperature:	-10 °C up to max. +180 °C
Umgebungstemperatur:	-10 °C up to max. +60 °C
Material body:	dezincification brass (CW602N)
Seat seal:	PTFE
Internal parts:	Brass, Stainless steel
Spindle sealing:	PTFE / FPM; self-adjustable

Pilot fluid range

Pilot connection:	G 1/4 resp. 1/4 NPT
Pilot fluid:	neutral gases fluids
Fluid temperature:	max. +60 °C
Material body:	Polyamid 66 with glass fibre 30 %
Seat seals:	NBR
Internal parts:	Brass, Stainless steel

Features

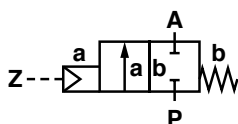
- Easy rebuilding into »normally open« or »double-acting« without tools
- Optical position indicator is standard
- Damped closing (Valves closes against flow direction)
- Suitable for contaminated flow fluid
- Suitable for vacuum up to max. 90 %
- Reversed flow direction optional
- High flow rate
- Option pressure actuated by external liquid fluid



Note: For hazardous areas, e. g. Zone 1/2 or 21/22, the kit 1264287 is required. It contains an additional sign, a silencer as dust shield and a conformity explanation. The maximum fluid temperature is reduced to 85 °C.



Symbol



Ordering information

To order, quote model number from table overleaf, e. g. 8450400.0000 for a DN 25 valve without pilot valve.

Characteristic Data

Valves

Part Number ◊	Nominal Diameter (mm)	Connection Size	Pilot pressure		Operating Pressure *		k _v -value ** (Base m ³ /h)	Weight Total *** (kg)
			min.	max. (bar)	min.	max. (bar)		
8450200.0000 8451200.0000	15	G 1/2 1/2 NPT	3.5	10	0	16.0 (25)	4.8	1.4
8450300.0000 8451300.0000	20	G 3/4 3/4 NPT	3.5	10	0	10.0 (16)	10.0	1.5
8450400.0000 8451400.0000	25	G 1 1 NPT	3.5	10	0	10.0	14.0	1.8
8450500.0000 8451500.0000	32	G 1 1/4 1 1/4 NPT	3.5	10	0	7.0	23.0	2.4
8450600.0000 8451600.0000	40	G 1 1/2 1 1/2 NPT	3.5	10	0	4.5	30.0	2.7
8450700.0000 8451700.0000	50	G 2 2 NPT	3.5	10	0	3.0	37.0	3.9

* with gases and liquid fluids up to 600 mm³/s (cSt)

State voltage [V] and frequency [Hz]

** C_v-value (US) ≈ k_v-value x 1.2

*** without pilot valve

◊ Note: 0000 without pilot valve

Notes

for 3/2-way pilot valve 84660 / 84680

Material body brass

Pilot fluid temperature max. +60 °C

Pilot pressure: 1 – 10 bar

Standard voltages: 24 V DC, 24 V AC, 230 V AC

Electrical Data

for 3/2-way pilot valve 84660 / 84680

Design acc. to DIN VDE 0580

Voltage range ±10 %

Duty cycle (ED) 100 %

Protection class to EN 60529 IP65 with mounted Socket

Socket acc. to DIN EN 175301-803A

Notes

for 3/2-way pilot valve 97100 hole pattern NAMUR

Material body aluminium elox

Pilot fluid temperature -10 °C to +50 °C

Pilot pressure: 2 – 8 bar

Standard voltages 24 V DC, 24 V AC, 230 V AC

Electrical Data

for 3/2-way pilot valve 97100 hole pattern NAMUR

Design acc. to DIN VDE 0580

Voltage range ±10 %

Duty cycle (ED) 100 %

Protection class to EN 60529 IP65 with mounted Socket

Socket acc. to DIN EN 175301-803A

Further Options (Valves)

XXXXX01.XXXX Normally open, closes with pilot pressure and opens with spring force (pilot pressure 1 – 10 bar)

XXXXX08.XXXX Double acting; 4/2 or 5/2-way-pilot valve required

XXXXX22.XXXX Higher operating pressure

XXXXX23.XXXX Double electrical position indicator

XXXXX50.XXXX NAMUR interface plate

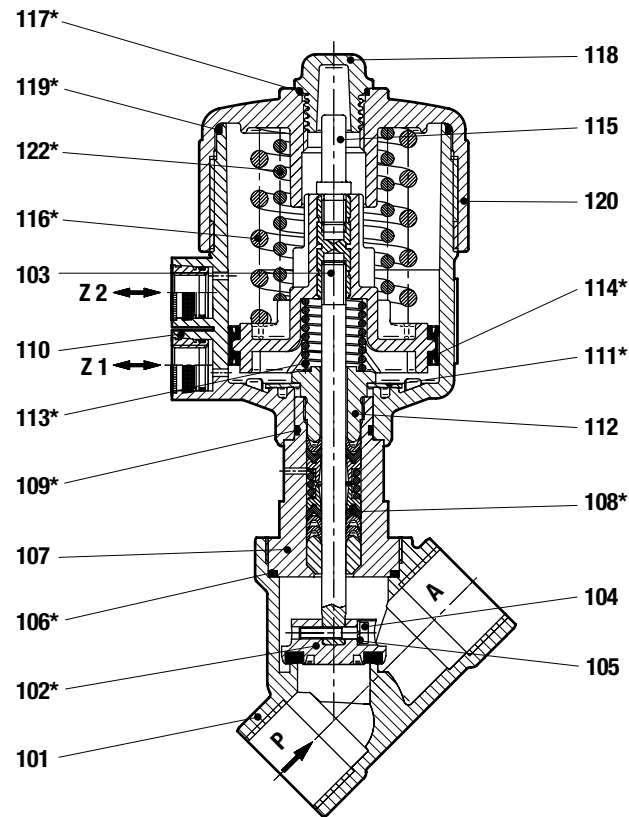
On Request Further versions
several seals: NBR, FPM, EPDM
stroke limiter, silencer,
electrical position indicator
with magnet inductive operated

Mounting accessories (NAMUR)

Interface plate NAMUR hole pattern for retrofit, (part number 1256566) consist of:

- 1x NAMUR interface plate
- 2x Adapter screw
- 2x O-ring

Section View

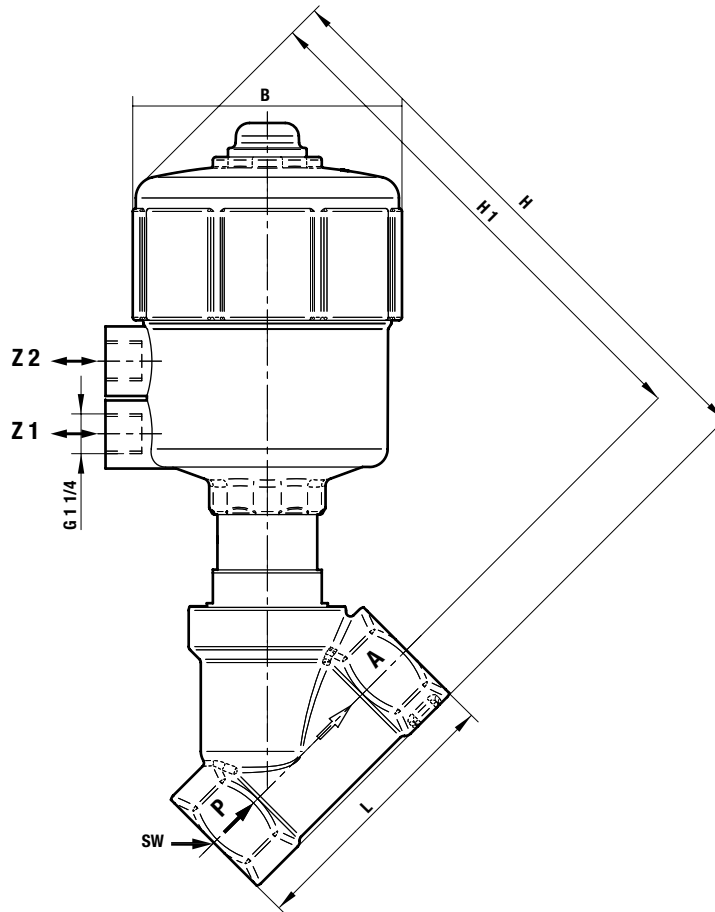


- | | |
|---|--------------------------------|
| 101 Valve body | *114 Cylinder packing |
| *102 Valve plate | 115 Signal pin |
| 103 Valve spindle, complete | *116 Pressure spring |
| 104 Cheese head cap screw | *117 O-ring |
| 105 Spring washer | 118 Cover cap |
| *106 Seal ring | *119 O-ring |
| 107 Screw piece | 120 Control head housing cover |
| *108 Seal packing | *122 Pressure spring |
| *109 O-ring | |
| 110 Control head housing cover, bottom part | |
| *111 Cup spring | |
| 112 Screw piece | |
| *113 Pressure spring | |

* These individual parts form a complete wearing unit.
When ordering spare parts please state Cat. No. and Series No.

General Dimensions

Actuator may be rotated 360°



Part Number	Nominal Diameter (mm)	Connection Size	L (mm)	B (mm)	H (mm)	H1 (mm)	SW (mm)
8450200.0000 8451200.0000	15	G 1/2 1/2 NPT	65	89.5	177.5	164.0	27
8450300.0000 8451300.0000	20	G 3/4 3/4 NPT	75	89.5	184.0	168.0	32
8450400.0000 8451400.0000	25	G 1 1 NPT	90	89.5	194.5	174.0	41
8450500.0000 8451500.0000	32	G 1 1/4 1 1/4 NPT	110	89.5	209.5	184.5	50
8450600.0000 8451600.0000	40	G 1 1/2 1 1/2 NPT	120	89.5	208.5	186.0	55
8450700.0000 8451700.0000	50	G 2 2 NPT	150	89.5	229.5	194.5	70

Note to Pressure Equipment Directive (PED):

The valves of this series, including the connection size DN 25 (G 1), are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG. This means interpretation and production are in accordance to engineers practice wellknown in the member countries.

The CE-sign at the valve refers not to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G 1) Art. 3 § (1) No.1.4 applies.

The basic requirements of the Enclosure I of the PED must be fulfilled.

The CE-sign at the valve includes the PED. A certificate of conformity of this directive will be available on request.

Note to Electromagnetic Compatibility Guideline (EEC):

The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 61000-6-3 and EN 61000-6-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2004/108/EG) satisfied.