

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 page 2

Description (standard valve)

Flow direction:	fixed
Mounting position:	optional
Flow fluid range	
Fluid temperature:	-10°C up to max. +180°C
Ambient temperature:	-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 gaseous fluids
Fluid temperature:	max. +60°C
Material body:	polyamid 66 with glass fibre 30%
Seat seals:	NBR
Internal parts:	brass, stainless steel



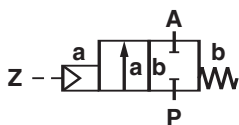
Features

- 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. 8450200.0000 for a G 1/2 valve without pilot valve.

Characteristic data See page 2 valve and solenoid informations.

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Characteristic data

Valves

Part Number	Nominal Diameter (mm)	Port size	Pilot pressure		Operating pressure *		kv-value ** (Base m³/h)	Weight *** (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)	4.80	1.4
8450300.0000 8451300.0000	20	G 3/4 3/4" NPT	3,5	10	0	10.0 (16)	10.00	1.5
8450400.0000 8451400.0000	25	G 1 1" NPT	3,5	10	0	10.0	14.00	1.8
8450500.0000 8451500.0000	32	G 1 1/4 1 1/4" NPT	3,5	10	0	7.0	23.00	2.4
8450600.0000 8451600.0000	40	G 1 1/2 1 1/2" NPT	3,5	10	0	4.5	30.00	2.7
8450700.0000 8451700.0000	50	G 2 2" NPT	3,5	10	0	3.0	37.00	3.9

* with gaseous 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

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

Technical data see publication D111402
 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

Technical data see publication 7503389.XX.XX.XXXX
 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

Options

available at extra cost

- 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

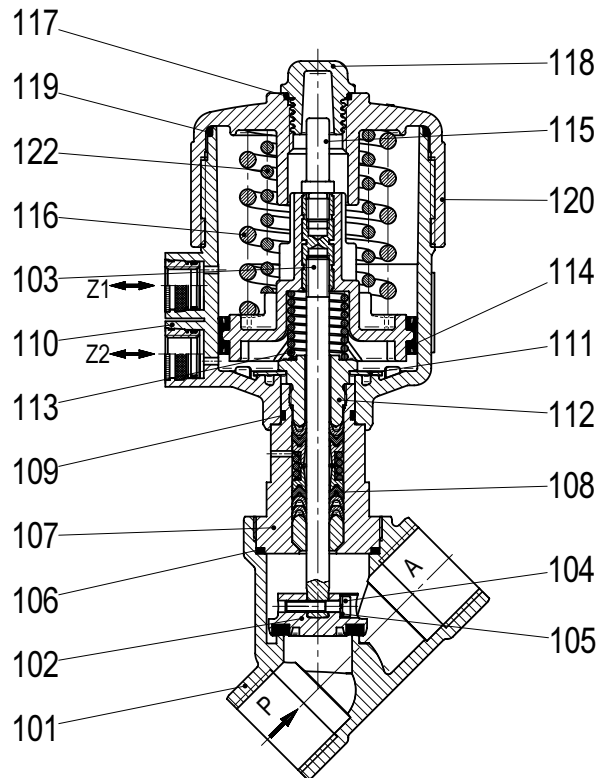
- On Request several seals: NBR, FPM, EPDM
 stroke limiter
 silencer
 electrical position indicator with magnet inductive operated

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



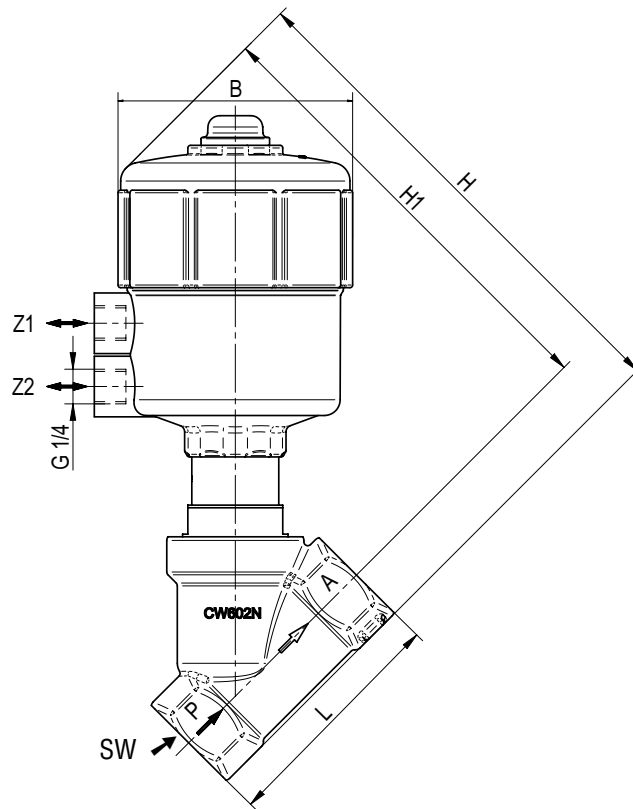
- 101 Valve body
- * 102 Valve plate
- 103 Valve spindle, complete
- 104 Cheese head cap screw
- 105 Spring washer
- * 106 Seal ring
- 107 Screw piece
- * 108 Seal packing
- * 109 O-ring
- 110 Control head housing cover, bottom part
- * 111 Cup spring
- 112 Screw piece
- * 113 Pressure spring

- * 114 Cylinder packing
- 115 Signal pin
- * 116 Pressure spring
- * 117 O-ring
- 118 Cover cap
- * 119 O-ring
- 120 Control head housing cover
- * 122 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	Connection	L mm	B mm	H mm	H1 mm	SW mm
8450200.0000 8451200.0000	G 1/2 1/2" NPT	65	89.5	177.5	164.0	27
8450300.0000 8451300.0000	G 3/4 3/4" NPT	75	89.5	184.0	168.0	32
8450400.0000 8451400.0000	G 1 1" NPT	90	89.5	194.5	174.0	41
8450500.0000 8451500.0000	G 1 1/4 1 1/4" NPT	110	89.5	209.5	184.5	50
8450600.0000 8451600.0000	G 1 1/2 1 1/2" NPT	120	89.5	208.5	186.0	55
8450700.0000 8451700.0000	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 50081-1 and EN 50082-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (89/336/EEC) satisfield.