

- > Port size: DN 15 ... 50, G1/2 ... 2 (ISO G/NPT)
- > Suitable for contaminated process fluids
- > High flow rate
- > High media compatibility due to optimal material combinations
- > For robust industry applications
- > Damped closing (valve closes against flow direction)
- > Suitable for vacuum up to max. 90%
- > International approvals



Technical features

Medium:
Aggressive gases and liquids

Pilot fluid:
Neutral gases max. +80°C (+176°F)

Switching function:
Normally closed

Operation:
Pressure actuated by external fluid

Mounting position:
Optional

Flow direction:
Determined

Port size:
G1/2, G3/4, G1, G1 1/4, G1 1/2, G2 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT, 2 NPT

Pilot connection:
G1/4 or 1/4 NPT

Operating pressure:
See table

Pilot pressure:
3,5 ... 8 bar (51 ... 116 psi)

Fluid temperature:
-10° ... +180°C (+14° ... +356°F)

Ambient temperature:
-10° ... +60°C (+14° ... +140°F)

Material:
Process fluid characteristics:
Body: Stainless steel (1.4408)
Seat seal: PTFE
Internal parts: Stainless steel
Spindle sealing: PTFE / FPM, self-adjustable
Pilot fluid characteristics:
Body: Stainless steel, Aluminium
Bottom: WEMA-Kor, coated
Seals: NBR
Internal parts: Coated steel

Technical data – standard models

| Symbol | Port size | Orifice (mm) | Actuator ø (mm) | Flow kv value *1) (m3/h) | Operating pressure *2) (bar) | Operating pressure *2) (psi) | Weight (kg) *3) | Model *3) |
|--------|-----------|--------------|-----------------|--------------------------|------------------------------|------------------------------|-----------------|--------------------|
| | G1/2 | 15 | 70 | 4,8 | 0 ... 16 | 0 ... 232 | 1,3 | 8238200.0000.00000 |
| | 1/2 NPT | 15 | 70 | 4,8 | 0 ... 16 | 0 ... 232 | 1,3 | 8239200.0000.00000 |
| | G3/4 | 20 | 70 | 10 | 0 ... 10 | 0 ... 145 | 1,4 | 8238300.0000.00000 |
| | 3/4 NPT | 20 | 70 | 10 | 0 ... 10 | 0 ... 145 | 1,4 | 8239300.0000.00000 |
| | G1 | 25 | 70 | 14 | 0 ... 10 | 0 ... 145 | 1,7 | 8238400.0000.00000 |
| | 1 NPT | 25 | 70 | 14 | 0 ... 10 | 0 ... 145 | 1,7 | 8239400.0000.00000 |
| | G1 1/4 | 32 | 70 | 23 | 0 ... 7 | 0 ... 101 | 2,4 | 8238500.0000.00000 |
| | 1 1/4 NPT | 32 | 70 | 23 | 0 ... 7 | 0 ... 101 | 2,4 | 8239500.0000.00000 |
| | G1 1/2 | 40 | 70 | 30 | 0 ... 4,5 | 0 ... 65 | 2,6 | 8238600.0000.00000 |
| | 1 1/2 NPT | 40 | 70 | 30 | 0 ... 4,5 | 0 ... 65 | 2,6 | 8239600.0000.00000 |
| | G2 | 50 | 70 | 37 | 0 ... 3 | 0 ... 43 | 3,8 | 8238700.0000.00000 |
| | 2 NPT | 50 | 70 | 37 | 0 ... 3 | 0 ... 43 | 3,8 | 8239700.0000.00000 |
| | G1/2 | 15 | 125 | 4,8 | 0 ... 40 | 0 ... 580 | 4,2 | 8248200.0000.00000 |
| | 1/2 NPT | 15 | 125 | 4,8 | 0 ... 40 | 0 ... 580 | 4,2 | 8249200.0000.00000 |
| | G3/4 | 20 | 125 | 10 | 0 ... 40 | 0 ... 580 | 4,3 | 8248300.0000.00000 |
| | 3/4 NPT | 20 | 125 | 10 | 0 ... 40 | 0 ... 580 | 4,3 | 8249300.0000.00000 |
| | G1 | 25 | 125 | 14 | 0 ... 25 | 0 ... 362 | 4,5 | 8248400.0000.00000 |
| | 1 NPT | 25 | 125 | 14 | 0 ... 25 | 0 ... 362 | 4,5 | 8249400.0000.00000 |
| | G1 1/4 | 32 | 125 | 27 | 0 ... 16 | 0 ... 232 | 5,1 | 8248500.0000.00000 |
| | 1 1/4 NPT | 32 | 125 | 27 | 0 ... 16 | 0 ... 232 | 5,1 | 8249500.0000.00000 |
| | G1 1/2 | 40 | 125 | 37 | 0 ... 10 | 0 ... 145 | 5,5 | 8248600.0000.00000 |
| | 1 1/2 NPT | 40 | 125 | 37 | 0 ... 10 | 0 ... 145 | 5,5 | 8249600.0000.00000 |
| | G2 | 50 | 125 | 53 | 0 ... 10 | 0 ... 145 | 7 | 8248700.0000.00000 |
| | 2 NPT | 50 | 125 | 53 | 0 ... 10 | 0 ... 145 | 7 | 8249700.0000.00000 |

*1) Cv-value (US) ≈ kv value x 1,2

*2) For gases and liquid fluids up to 600 mm2/s (cSt)

*3) Without pilot valve

Option selector

82*****.0000.00000

| Actuator | Substitute |
|-------------|------------|
| ∅ 70 | 3 |
| ∅ 125 | 4 |
| Thread form | Substitute |
| ISO G | 8 |
| NPT | 9 |
| Port size | Substitute |
| 1/2 | 2 |
| 3/4 | 3 |
| 1 | 4 |
| 1 1/4 | 5 |
| 1 1/2 | 6 |
| 2 | 7 |

| Valve options | Substitute |
|---|------------|
| Normally open (NO), closes with pilot pressure and opens with spring force (pilot pressure 2 ... 6 bar (29 ... 87 psi)) | 01 |
| Seat seals FPM, Temperature max. +180°C | 03 |
| Operating pressure G1/2 0 ... 25 bar (0 ... 362 psi) G3/4 0 ... 16 bar (0 ... 232 psi) | 22 |
| Electrical position indicator with 2 limit switches Sol switch: protection class IP 67, LED, 2 m cable LifYY 2 x 0,25 qmm Type: NAMUR DIN EN 60947-5-6 | 40 |
| Electrical position indicator with 2 limit switches Sol switch 10 ... 30 V d.c., 3-wire, NOC, PNP, short-circuit proof, protection class IP 67, LED yellow, 2 m cable PVC 3 x 0,25 qmm | 41 |
| Optical position indicator | 52 |
| Fluid temperature max. +200°C | 59 |
| Spindle seal with stainless steel bellows | 80 |

Notes

for 3/2-way pilot valve 84660 / 84680

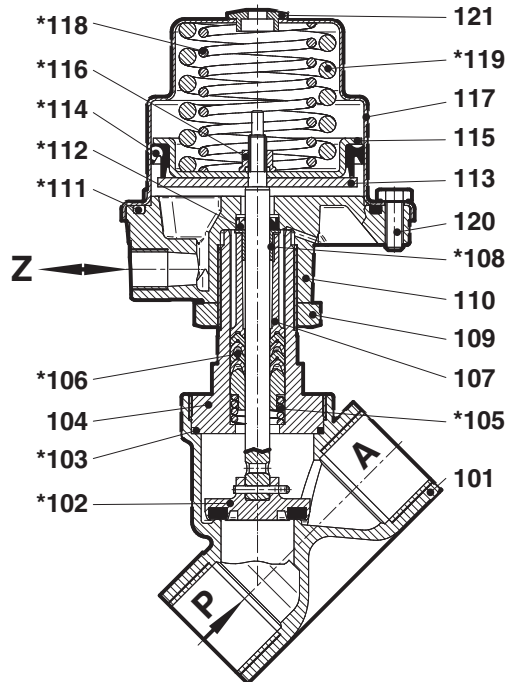
| | |
|-------------------------|----------------------------------|
| Material | Body Aluminium |
| Pilot fluid temperature | max. +60°C |
| Pilot pressure | 1 ... 10 bar |
| Standard voltages | 24 V d.c., 24 V a.c., 230 V a.c. |

Electrical Data

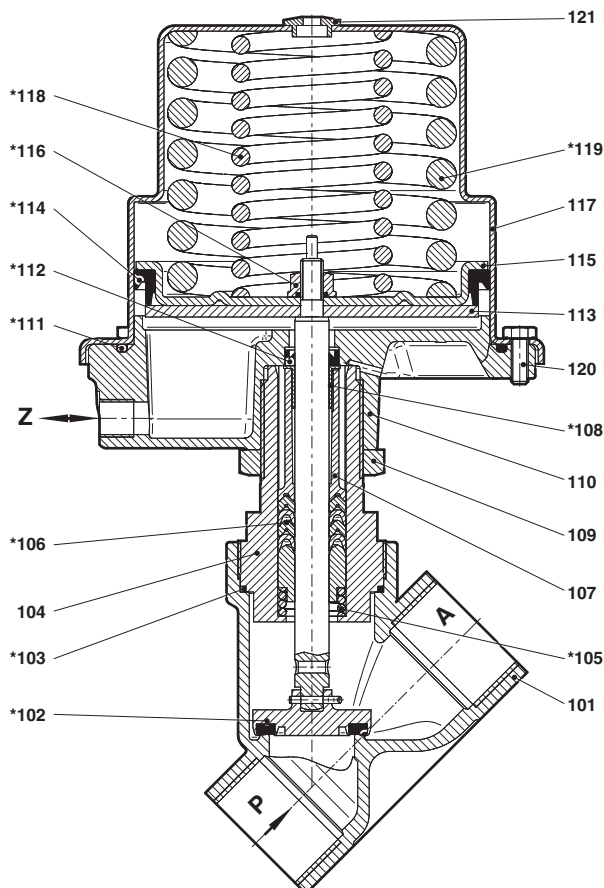
for 3/2-way pilot valve 84660 / 84680

| | |
|------------------|---|
| Design acc. to | DIN VDE 0580 |
| Voltage range | ±10% |
| Duty cycle | 100% ED |
| Protection class | EN 60529 IP65 with mounted socket |
| Socket | Form A acc. to DIN EN 175301-803 (included) |
| Technical data | See publication N/en 5.8.640 |

Further versions on request!

Section View
G1/2 ... 2
1/2 ... 2 NPT
Actuator ø 70 mm


| No. | Description |
|------|------------------------------------|
| 101 | Valve body |
| *102 | Valve spindle, assembly |
| *103 | Gasket |
| 104 | Screw piece |
| *105 | Pressure spring |
| *106 | Spindle sealing |
| 107 | Spacer sleeve |
| *108 | Sleeve bearing |
| 109 | Nut |
| 110 | Bottom of control head housing |
| *111 | O-ring |
| *112 | FPM lip seal |
| 113 | Round plate |
| *114 | Lip seal |
| 115 | Round plate |
| *116 | Tight-Stop-nut |
| 117 | Control head housing |
| *118 | Pressure spring for G1 and G2 only |
| *119 | Pressure spring |
| 120 | Hexagon screw |
| 121 | Plug |

G1 1/4 ... 2
1/2 ... 2 NPT
Actuator ø 125 mm


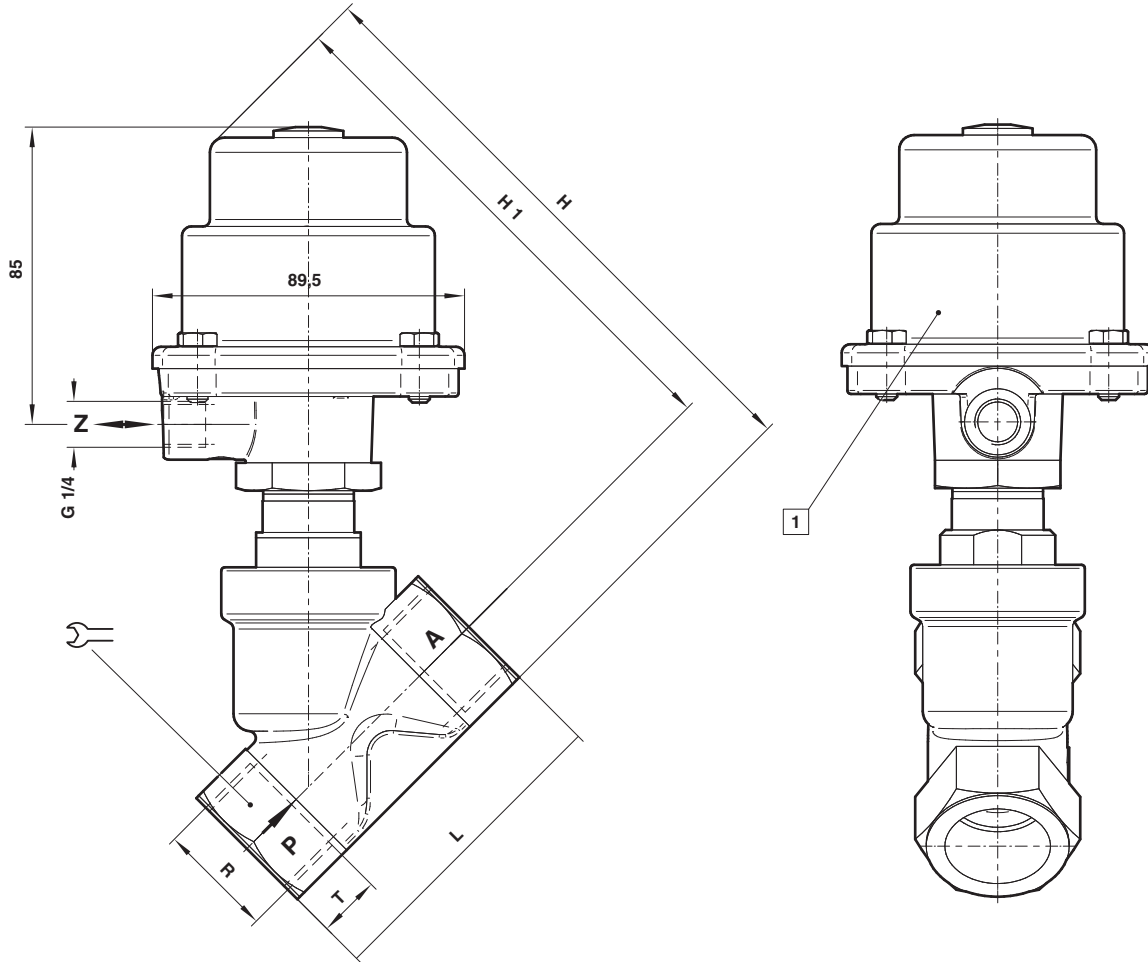
| No. | Description |
|------|------------------------------------|
| 101 | Valve body |
| *102 | Valve spindle, assembly |
| *103 | Gasket |
| 104 | Screw piece |
| *105 | Pressure spring |
| *106 | Spindle sealing |
| 107 | Spacer sleeve |
| *108 | Sleeve bearing |
| 109 | Nut |
| 110 | Bottom of control head housing |
| *111 | O-ring |
| *112 | FPM lip seal |
| 113 | Round plate |
| *114 | Lip seal |
| 115 | Round plate |
| *116 | Tight-Stop-nut |
| 117 | Control head housing |
| *118 | Pressure spring for G1 and G2 only |
| *119 | Pressure spring |
| 120 | Hexagon screw |
| 121 | Plug |

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


Dimensions

G1/2 ... 2
1/2 ... 2 NPT
Actuator ø 70 mm

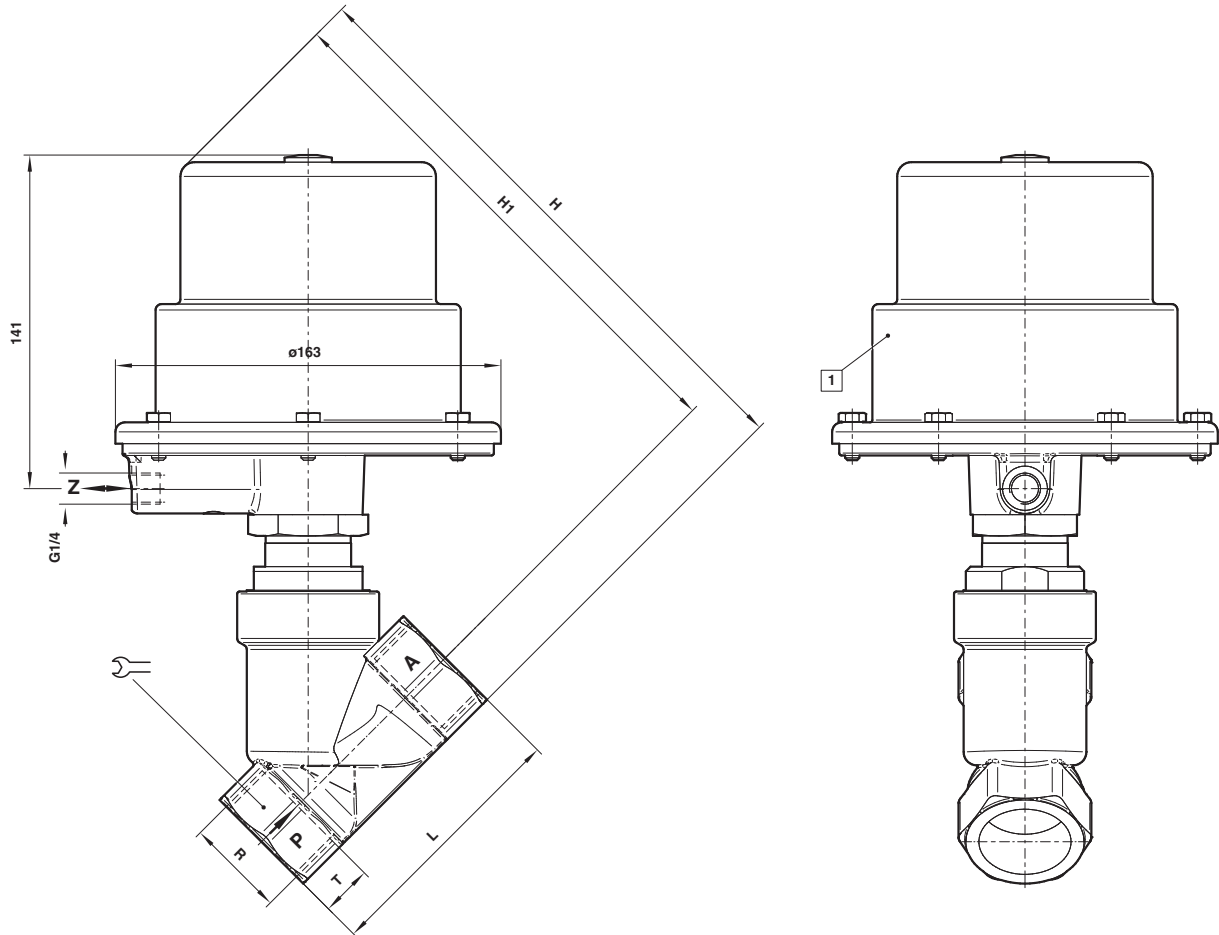
Dimensions in mm
Projection/First angle




1 Actuator may be rotated 360°

| Port size R | Actuator ø | H | H1 | L | T |  | Model |
|-------------|------------|-----|-----|-----|------|---|--------------------|
| G1/2 | 70 | 154 | 140 | 65 | 15 | 27 | 8238200.0000.00000 |
| 1/2 NPT | 70 | 154 | 140 | 65 | 13,6 | 27 | 8239200.0000.00000 |
| G3/4 | 70 | 160 | 144 | 75 | 16,5 | 32 | 8238300.0000.00000 |
| 3/4 NPT | 70 | 160 | 144 | 75 | 14,1 | 32 | 8239300.0000.00000 |
| G1 | 70 | 170 | 150 | 90 | 19 | 41 | 8238400.0000.00000 |
| 1 NPT | 70 | 170 | 150 | 90 | 16,8 | 41 | 8239400.0000.00000 |
| G1 1/4 | 70 | 186 | 161 | 110 | 21,5 | 50 | 8238500.0000.00000 |
| 1 1/4 NPT | 70 | 186 | 161 | 110 | 17,3 | 50 | 8239500.0000.00000 |
| G1 1/2 | 70 | 190 | 162 | 120 | 21,5 | 55 | 8238600.0000.00000 |
| 1 1/2 NPT | 70 | 190 | 162 | 120 | 17,3 | 55 | 8239600.0000.00000 |
| G2 | 70 | 206 | 171 | 150 | 26 | 70 | 8238700.0000.00000 |
| 2 NPT | 70 | 206 | 171 | 150 | 17,8 | 70 | 8239700.0000.00000 |

Dimensions
G1 1/4 ... 2
1 1/4 ... 2 NPT
Actuator ø 125 mm

 Dimensions in mm
 Projection/First angle


1 Actuator may be rotated 360°

| Port size R | Actuator ø | H | H1 | L | T |  | Model |
|-------------|------------|-----|-----|-----|------|---|--------------------|
| G1/2 | 125 | 232 | 218 | 65 | 15 | 27 | 8248200.0000.00000 |
| 1/2 NPT | 125 | 232 | 218 | 65 | 13,6 | 27 | 8249200.0000.00000 |
| G3/4 | 125 | 236 | 220 | 75 | 16,5 | 32 | 8248300.0000.00000 |
| 3/4 NPT | 125 | 236 | 220 | 75 | 14,1 | 32 | 8249300.0000.00000 |
| G1 | 125 | 246 | 226 | 90 | 19 | 41 | 8248400.0000.00000 |
| 1 NPT | 125 | 246 | 226 | 90 | 16,8 | 41 | 8249400.0000.00000 |
| G1 1/4 | 125 | 250 | 226 | 110 | 21,5 | 50 | 8248500.0000.00000 |
| 1 1/4 NPT | 125 | 250 | 226 | 110 | 17,3 | 50 | 8249500.0000.00000 |
| G1 1/2 | 125 | 254 | 226 | 120 | 21,5 | 55 | 8248600.0000.00000 |
| 1 1/2 NPT | 125 | 254 | 226 | 120 | 17,3 | 55 | 8249600.0000.00000 |
| G2 | 125 | 270 | 235 | 150 | 26 | 70 | 8248700.0000.00000 |
| 2 NPT | 125 | 270 | 235 | 150 | 17,8 | 70 | 8249700.0000.00000 |

Note to Pressure Equipment Directive (PED):

The valves of this series up to and including DN 25 (G1) are according to Art. 4 § 3 of the Pressure Equipment Directive (PED) 2014/68/EU. This means interpretation and production are in accordance to engineers practice wellknown in the member countries. The CE-sign at the valve does not refer to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G1) Art. 4 § (1) Letter d) 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 (2014/30/EU) satisfied.

Note to EAC marking:

The EAC-marked products comply with the applicable requirements stated in the technical regulations of the Eurasian Economic Union.