

84500/84510

2/2-way seat valves

- > Port size: DN 15 ... 50, 1/2 ... 2 (ISO G/NPT)
- > 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
- > International approvals



Technical features

Medium:
Neutral gases and liquids

Pilot fluid:
Neutral gases max. +60°C (+14°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

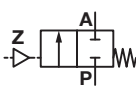
Pilot pressure:
3,5 ... 10 bar (51 ... 145 psi)

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

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

Material:
Process fluid characteristics:
Body: Dezincification Brass (CW617N)
Seat seal: PTFE
Internal parts: Brass, Stainless steel
Spindle sealing: PTFE / FPM, self-adjustable
Pilot fluid characteristics:
Body: Polyamid 66 with glass fibre 30%
Seat Seals: NBR
Internal parts: Brass, Stainless steel

Technical data – standard models

Symbol	Port size	Orifice (mm)	Flow kv value *1) (m³/h)	Operating pressure *2) (bar) (psi)		Weight *3) (kg)	Model *3)
	G1/2	15	4,8	0 ... 16 (25)	0 ... 232 (362)	1,4	8450200.0000.00000
	1/2 NPT	15	4,8	0 ... 16 (25)	0 ... 232 (362)	1,4	8451200.0000.00000
	G3/4	20	10	0 ... 10 (16)	0 ... 145 (232)	1,5	8450300.0000.00000
	3/4 NPT	20	10	0 ... 10 (16)	0 ... 145 (232)	1,5	8451300.0000.00000
	G1	25	14	0 ... 10	0 ... 145	1,8	8450400.0000.00000
	1 NPT	25	14	0 ... 10	0 ... 145	1,8	8451400.0000.00000
	G1 1/4	32	23	0 ... 7	0 ... 101	2,4	8450500.0000.00000
	1 1/4 NPT	32	23	0 ... 7	0 ... 101	2,4	8451500.0000.00000
	G1 1/2	40	30	0 ... 4,5	0 ... 65	2,7	8450600.0000.00000
	1 1/2 NPT	40	30	0 ... 4,5	0 ... 65	2,7	8451600.0000.00000
	G2	50	37	0 ... 3	0 ... 43	3,9	8450700.0000.00000
	2 NPT	50	37	0 ... 3	0 ... 43	3,9	8451700.0000.00000

*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

-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.

Option selector

Thread form	Substitute
ISO G	2
NPT	3
Port size	Substitute
1/2	2
3/4	3
1	4
1 1/4	5
1 1/2	6
2	7

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Valve options	Substitute
Normally open (NO), closes with pilot pressure and opens with spring force (pilot pressure 1 ... 10 bar)	01
Double acting, 4/2 or 5/2-way-pilot valve required	08
Electrical position indicator with 2 micro-switches	23
NAMUR interface plate	50

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!

Notes

for 5/2-way pilot valve 97100 hole pattern NAMUR

Material	Body Aluminium elox
Pilot fluid temperature	-10 ... +50°C (+14 ... +122°F)
Pilot pressure	2 ... 8 bar
Standard voltages	24 V d.c., 24 V a.c., 230 V a.c.

Electrical Data

for 5/2-way pilot valve 97100 hole pattern NAMUR

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 5.4.372

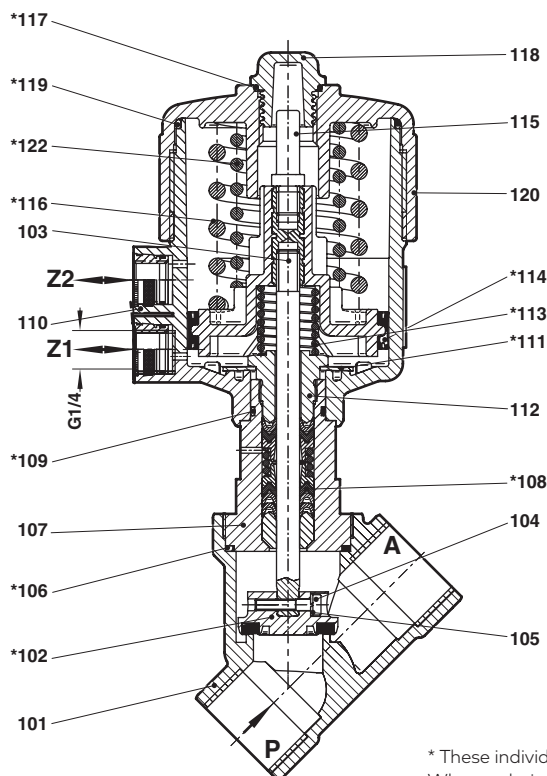
Mounting accessories (NAMUR)

Interface plate NAMUR hole pattern for retrofit
(Part-Number 1256566) consist of:
1x NAMUR-interface plate; 2x Adapter screw; 2x O-ring

Section View

G1/2 ... 2

1/2 ... 2 NPT



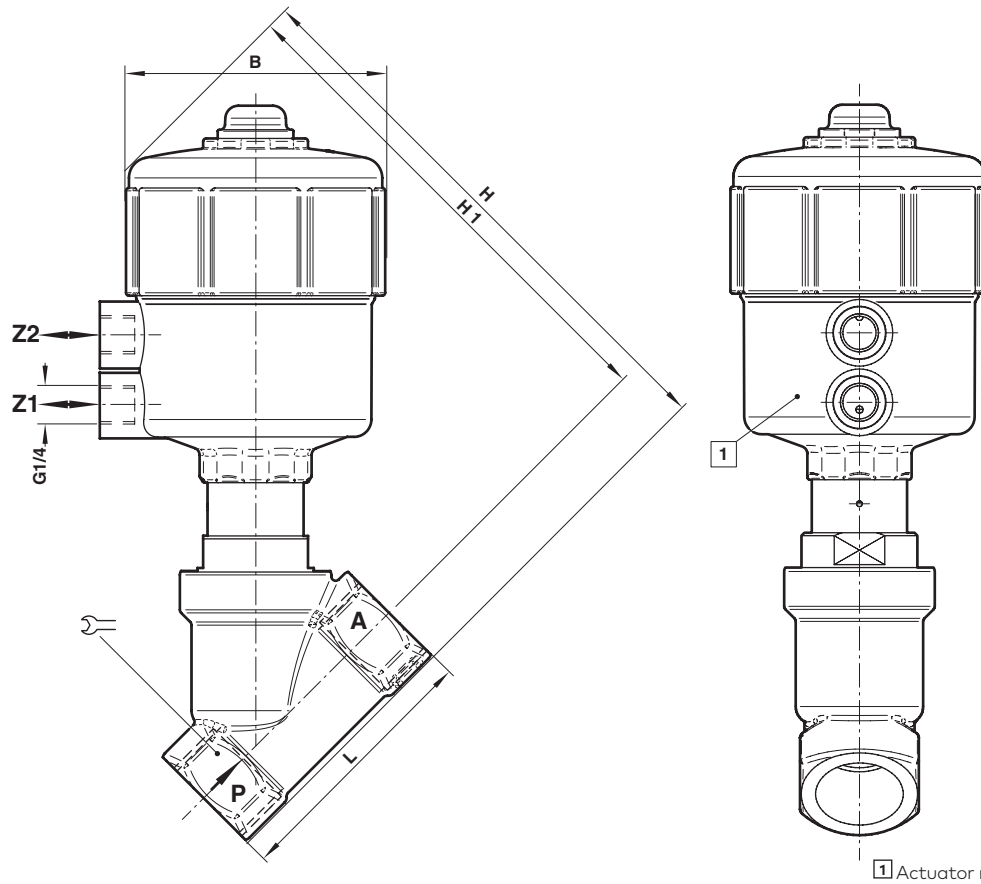
No.	Description
101	Valve body
*102	Valve plate
103	Valve spindle, complete
104	Cheese head cap screw
105	Spring washer
*106	Seal ring
107	Screw piece
*108	Seal packing
*109	O-ring
110	Control head housing cover, bottom part
*111	Cup spring
112	Screw piece
*113	Pressure spring
*114	Cylinder packing
115	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.

Dimensions

G1/2 ... 2
1/2 ... 2 NPT

Dimensions in mm
Projection/First angle



Port size	B	H	H1	L		Model
G1/2	89,5	177,5	164	65	27	8450200.0000.00000
1/2 NPT	89,5	177,5	164	65	27	8451200.0000.00000
G3/4	89,5	184	168	75	32	8450300.0000.00000
3/4 NPT	89,5	184	168	75	32	8451300.0000.00000
G1	89,5	194,5	174	90	41	8450400.0000.00000
1 NPT	89,5	194,5	174	90	41	8451400.0000.00000
G1 1/4	89,5	209,5	184,5	110	50	8450500.0000.00000
1 1/4 NPT	89,5	209,5	184,5	110	50	8451500.0000.00000
G1 1/2	89,5	208,5	186	120	55	8450600.0000.00000
1 1/2 NPT	89,5	208,5	186	120	55	8451600.0000.00000
G2	89,5	229,5	194,5	150	70	8450700.0000.00000
2 NPT	89,5	229,5	194,5	150	70	8451700.0000.00000

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) satisfield.

Note to EAC marking:

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