

86720/86730

2/2-way piston valves

- > Port size: DN 8 ... 50, 1/4 ... 2 (ISO G/NPT)
- > High flow rate
- > For steam and hot water
- > Damped operation
- > Valve operates without differential pressure
- > International approvals



Technical features

Medium:
Neutral steam and liquids

Switching function:
Normally closed

Operation:
Solenoid actuated, with forced lifting

Mounting position:
Solenoid vertical on top; optional up to G1 / 1 NPT; solenoid underneath

Flow direction:
Determined

Port size:
G1/4, G3/8, G1/2, G3/4, G1, G1 1/4, G1 1/2, G2 1/4 NPT, 3/8 NPT, 1/2 NPT, 3/4 NPT, 1 NPT, 1 1/4 NPT, 1 1/2 NPT, 2 NPT

Operating pressure:
0 ... 16 bar (0 ... 232 psi)

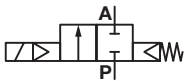
Fluid temperature:
0 ... +200°C (+32 ... +392°F)

Ambient temperature:
0 ... +60°C (+32 ... +140°F)

Material:
Body: Brass (CW617N)
Seat seal: PTFE
Internal parts: Stainless steel, PTFE/Carbon, Brass

For contaminated fluids insertion of a strainer is recommended.

Technical data – standard models

Symbol	Port size	Orifice	Flow kv value *1)	Operating pressure *2)		Weight (kg)	Model	
		(mm)	(m ³ /h)	(bar)	(psi)		Solenoid in V d.c.	Solenoid in V a.c.
	G1/4	8	2,2	0 ... 16	0 ... 232	2,4	8672000.8402.xxxxx	8672000.8406.xxxxx
	1/4 NPT	8	2,2	0 ... 16	0 ... 232	2,4	8673000.8402.xxxxx	8673000.8406.xxxxx
	G3/8	10	3,4	0 ... 16	0 ... 232	2,4	8672100.8402.xxxxx	8672100.8406.xxxxx
	3/8 NPT	10	3,4	0 ... 16	0 ... 232	2,4	8673100.8402.xxxxx	8673100.8406.xxxxx
	G1/2	12	4,4	0 ... 16	0 ... 232	2,5	8672200.8402.xxxxx	8672200.8406.xxxxx
	1/2 NPT	12	4,4	0 ... 16	0 ... 232	2,5	8673200.8402.xxxxx	8673200.8406.xxxxx
	G3/4	20	6,5	0 ... 16	0 ... 232	2,7	8672300.8402.xxxxx	8672300.8406.xxxxx
	3/4 NPT	20	6,5	0 ... 16	0 ... 232	2,7	8673300.8402.xxxxx	8673300.8406.xxxxx
	G1	25	10	0 ... 16	0 ... 232	3,1	8672400.8402.xxxxx	8672400.8406.xxxxx
	1 NPT	25	10	0 ... 16	0 ... 232	3,1	8673400.8402.xxxxx	8673400.8406.xxxxx
	G1 1/4	32	22	0 ... 16	0 ... 232	5,6	8672500.8402.xxxxx	8672500.8406.xxxxx
	1 1/4 NPT	32	22	0 ... 16	0 ... 232	5,6	8673500.8402.xxxxx	8673500.8406.xxxxx
	G1 1/2	40	23	0 ... 16	0 ... 232	5,4	8672600.8402.xxxxx	8672600.8406.xxxxx
	1 1/2 NPT	40	23	0 ... 16	0 ... 232	5,4	8673600.8402.xxxxx	8673600.8406.xxxxx
	G2	50	37	0 ... 16	0 ... 232	6,8	8672700.8402.xxxxx	8672700.8406.xxxxx
	2 NPT	50	37	0 ... 16	0 ... 232	6,8	8673700.8402.xxxxx	8673700.8406.xxxxx

xxxxx Please insert voltage and frequency codes
 *1) Cv-value (US) = kv value x 1,2
 *2) For gases and liquid fluids up to 40 mm²/s (cSt)

Option selector
867***.*****.*******

Thread form	Substitute
ISO G	2
NPT	3
Port size	Substitute
1/4	0
3/8	1
1/2	2
3/4	3
1	4
1 1/4	5
1 1/2	6
2	7
Valve options	Substitute
Normally open (NO)	01
Manual override	02
Seat seal EPDM, max. fluid temperature +130°C (+266F)	14
Max. operating pressure 25 bar	22
Electrical position indicator, with 2 limit switches	23

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See table voltage codes	xxx
Solenoid options	Substitute
G1/4 ... 2 Solenoid in V d.c.	8402
G1/4 ... 2 Solenoid in V a.c.	8406

Standard solenoid systems

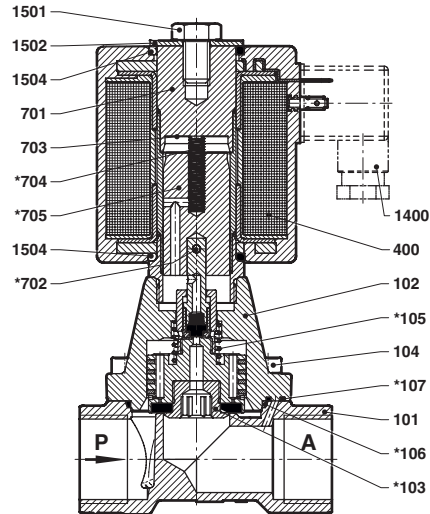
Voltage and Frequency Solenoid 8301/8304					
Code	Code	Voltage	Frequency	Power consumption	
Voltage	Frequency			Inrush	Holding
024	00	24 V d.c.	-	29 W	29 W
024	49	24 V a.c. *3)	40 ... 60 Hz	33 VA	33 VA
110	49	110 V a.c. *3)	40 ... 60 Hz	33 VA	33 VA
120	49	120 V a.c. *3)	40 ... 60 Hz	33 VA	33 VA
230	49	230 V a.c. *3)	40 ... 60 Hz	33 VA	33 VA

*3) A.c. only with rectifier plug

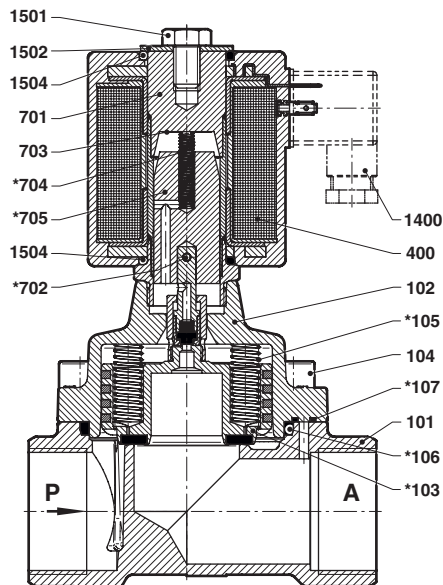
Further versions on request!
Electrical details for all solenoid systems

Design	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65
Socket	Form A acc. to DIN EN 175301-803 (included)

According to DIN VDE 0580 at a solenoid temperature of +20°C.
At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

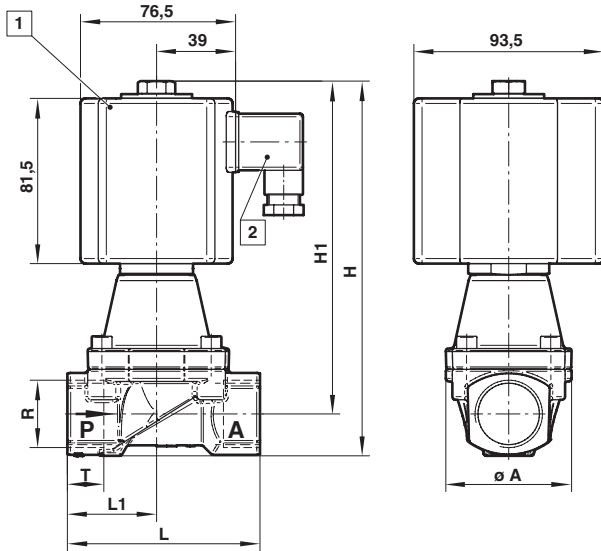
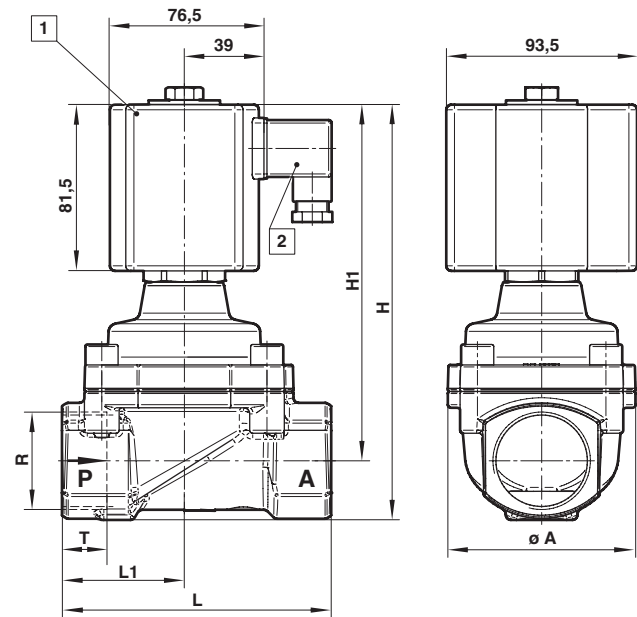
Section View
G1/4 ... 1
1/4 ... 1 NPT


No.	Description
101	Valve body
102	Valve cover
*103	Valve piston
104	Socket head cap screw
*105	Pressure spring
*106	Seal ring
*107	O-Ring
400	Solenoid
701	Core tube
*702	Straight pin
703	Round plate
*704	Pressure spring
*705	Core
1400	Socket (included)
1501	Hexagon screw
1502	Round plate
1504	O-Ring

G1 1/4 ... 2
1 1/4 ... 2 NPT


No.	Description
101	Valve body
102	Valve cover
*103	Valve piston
104	Socket head cap screw
*105	Pressure spring (2x)
*106	Seal ring
*107	O-Ring
400	Solenoid
701	Core tube
*702	Straight pin
703	Round plate
*704	Pressure spring
*705	Core
1400	Socket (included)
1501	Hexagon screw
1502	Round plate
1504	O-Ring

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

Dimensions
G1/4 ... 1
1/4 ... 1 NPT

G11/4 ... 2
11/4 ... 2 NPT

 Dimensions in mm
 Projection/First angle


1 Solenoid rotatable 360°
 Socket turnable 4 x 90°
 (Socket included)

Port size R	ø A	H	H1	L	L1	T	Model
G1/4	44	143	132	60	27,5	12	8672000.840x.xxxxx
1/4 NPT	44	143	132	60	27,5	10	8673000.840x.xxxxx
G3/8	44	143	132	60	27,5	12	8672100.840x.xxxxx
3/8 NPT	44	143	132	60	27,5	10,5	8673100.840x.xxxxx
G1/2	44	145	132	67	31	14	8672200.840x.xxxxx
1/2 NPT	44	145	132	67	31	13,5	8673200.840x.xxxxx
G3/4	50	154	137	80	35,5	16	8672300.840x.xxxxx
3/4 NPT	50	154	137	80	35,5	14	8673300.840x.xxxxx
G1	62	164	143,5	95	44	18	8672400.840x.xxxxx
1 NPT	62	164	143,5	95	44	17	8673400.840x.xxxxx
G 11/4	92	212	183	132	60	20	8672500.840x.xxxxx
11/4 NPT	92	212	183	132	60	17	8673500.840x.xxxxx
G11/2	92	212	183	132	60	22	8672600.840x.xxxxx
11/2 NPT	92	212	183	132	60	17	8673600.840x.xxxxx
G2	109	226	192	160	74	24	8672700.840x.xxxxx
2 NPT	109	226	192	160	74	17,5	8673700.840x.xxxxx

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.