

- > Port size: DN 8 ... 50, G1/4 ... 2 (ISO G/NPT)
- > Valve operates without differential pressure (Zero delta P)
- > Valve piston with PTFE guide-ring
- > Suitable for vacuum
- > Damped operation
- > International approvals



### Technical features

**Medium:**  
Slightly aggressive gases and liquids

**Switching function:**  
Normally closed

**Operation:**  
Solenoid actuated, with forced lifting

**Mounting:**  
Optional, preferably solenoid vertical on top

**Flow direction:**  
Determined

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

**Operating pressure:**  
0 ... 25 bar (0 ... 362 psi)  
0 ... 40 bar (0 ... 580 psi)

**Fluid temperature:**  
-20 ... +90°C (-4 ... +194°F)

**Ambient temperature:**  
-20 ... +50°C (-4 ... +122°F)

**Material:**  
Body: Stainless steel (1.4408)  
Seat seal: NBR  
Internal parts: Stainless steel, PTFE / Carbon

For contaminated fluids insertion of a strainer is recommended.

### Technical data - standard models

Symbol	Port size	Orifice (mm)	Flow kv value *1) (m³/h)	Operating pressure *2)		Weight (kg)	Model Solenoid in V d.c.	Model Solenoid in V a.c.
				(bar)	(psi)			
	G1/4	8	2,2	0 ... 25	0 ... 362	2,4	8674000.8301.xxxxx	8674000.8304.xxxxx
	1/4 NPT	8	2,2	0 ... 25	0 ... 362	2,4	8675000.8301.xxxxx	8675000.8304.xxxxx
	G3/8	10	3,4	0 ... 25	0 ... 362	2,4	8674100.8301.xxxxx	8674100.8304.xxxxx
	3/8 NPT	10	3,4	0 ... 25	0 ... 362	2,4	8675100.8301.xxxxx	8675100.8304.xxxxx
	G1/2	12	4,4	0 ... 25	0 ... 362	2,5	8674200.8301.xxxxx	8674200.8304.xxxxx
	1/2 NPT	12	4,4	0 ... 25	0 ... 362	2,5	8675200.8301.xxxxx	8675200.8304.xxxxx
	G3/4	20	6,5	0 ... 25	0 ... 362	2,7	8674300.8301.xxxxx	8674300.8304.xxxxx
	3/4 NPT	20	6,5	0 ... 25	0 ... 362	2,7	8675300.8301.xxxxx	8675300.8304.xxxxx
	G1	25	10	0 ... 25	0 ... 362	3,1	8674400.8301.xxxxx	8674400.8304.xxxxx
	1 NPT	25	10	0 ... 25	0 ... 362	3,1	8675400.8301.xxxxx	8675400.8304.xxxxx
	G1 1/4	32	24	0 ... 25	0 ... 362	5,6	8674500.8401.xxxxx	8674500.8404.xxxxx
	1 1/4 NPT	32	24	0 ... 25	0 ... 362	5,6	8675500.8401.xxxxx	8675500.8404.xxxxx
	G1 1/2	40	25	0 ... 25	0 ... 362	5,4	8674600.8401.xxxxx	8674600.8404.xxxxx
	1 1/2 NPT	40	25	0 ... 25	0 ... 362	5,4	8675600.8401.xxxxx	8675600.8404.xxxxx
	G2	50	41	0 ... 25	0 ... 362	6,8	8674700.8401.xxxxx	8674700.8404.xxxxx
	2 NPT	50	41	0 ... 25	0 ... 362	6,8	8675700.8401.xxxxx	8675700.8404.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

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Thread form	Substitute
ISO G	4
NPT	5
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), Mounting position: solenoid vertical on top	01
Manual override, only with solenoid 84xx	02
Seat seal FPM, Fluid temperature -10 ... +110°C *3)	03
Seat seal PTFE, Fluid temperature -20 ... +110°C *3) Leakage rate E acc. to DIN EN 12266-1	06
Seat seal EPDM, for hot water, Fluid temperature -20 ... +110°C	14
Normally open (NO), Seat seal FPM, Fluid temperature -10 ... +110°C *3), Mounting position: solenoid vertical on top	17

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See table voltage codes	xxx
Solenoid options	Substitute
G1/4 ... 1 Solenoid in V d.c.	8301
G1 1/4 ... 2 Solenoid in V d.c.	8401
G1/4 ... 1 Solenoid in V a.c.	8304
G1 1/4 ... 2 Solenoid in V a.c.	8404
Valve options	Substitute
Max. operating pressure 40 bar, only with solenoid 84xx	22
Electrical position indicator with 2 limit switches (Reed contact) only with solenoid 84xx	23
Seat seal FPM, with larger bleed orifices in the piston, for fluids such as fuel and oil, viscosity max. 80 mm <sup>2</sup> /s (cSt), Fluid temperature -10 ... +110°C *3), only with solenoid 84xx	25
Designed for ammonia, Seat seal CR	75
Version for drinking water on request	

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.	-	22 W	22 W
024	49	24 V a.c. *3)	40 ... 60 Hz	25 VA	25 VA
110	49	110 V a.c. *3)	40 ... 60 Hz	25 VA	25 VA
120	49	120 V a.c. *3)	40 ... 60 Hz	25 VA	25 VA
230	49	230 V a.c. *3)	40 ... 60 Hz	25 VA	25 VA
Voltage and Frequency Solenoid 8401/8404 *1)					
024	00	24 V d.c.	-	40 W	40 W
024	49	24 V a.c. *3)	40 ... 60 Hz	45 VA	45 VA
110	49	110 V a.c. *3)	40 ... 60 Hz	45 VA	45 VA
120	49	120 V a.c. *3)	40 ... 60 Hz	45 VA	45 VA
230	49	230 V a.c. *3)	40 ... 60 Hz	45 VA	45 VA

\*3) a.c. 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.

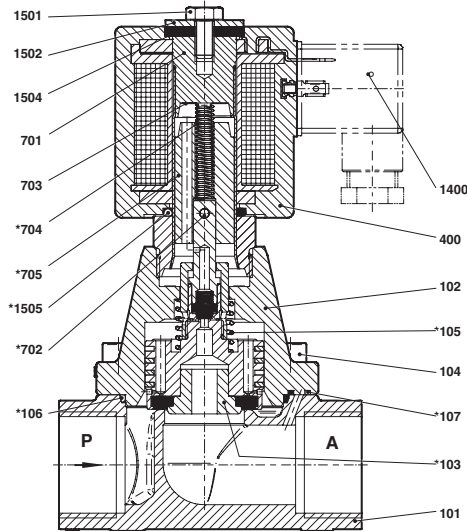
Additional solenoid systems for hazardous areas

ATEX category	ATEX protection class	IP protection class	Solenoid	Standard voltages
II 3G	Ex ec IIC T4 Gc	IP65	8326 *4)	24 V d.c.
II 3D	Ex tc IIIC T130°C DC			
II 3G	Ex ec IIC T4 Gc	IP65	8426 *4)	24 V d.c.
II 3D	Ex tc IIIC T130°C DC			
II 2G	Ex eb mb IIC T3 Gb	IP66	6220	24 V d.c., 110 V a.c., 230 V a.c.
II 2D	Ex mb tb IIIB T135°C Db			
II 2G	Ex eb mb IIC T3 Gb	IP66	6240	24 V d.c., 110 V a.c., 230 V a.c.
II 2D	Ex mb tb IIIB T140°C Db			

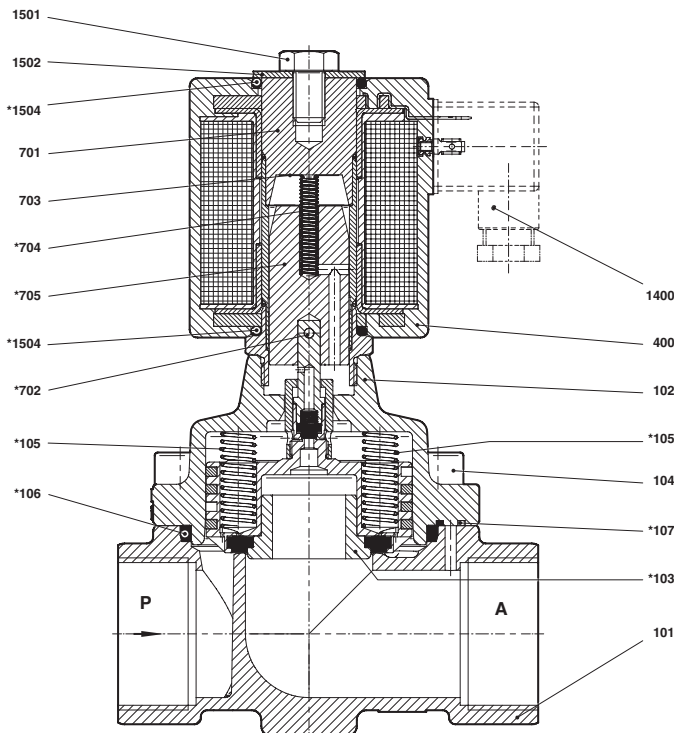
Attention!

The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.

\*4) d.c. only, for a.c. solenoids with design inspection certificate acc. to category 2, e. g. 6220 or 6240

**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	Seal 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	Gasket
*1505	O-ring

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


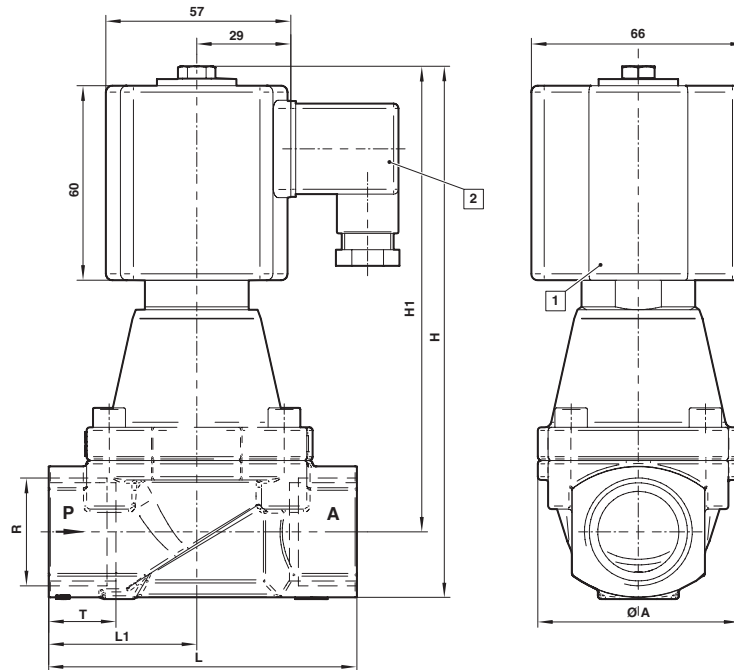
No.	Description
101	Valve body
102	Valve cover
*103	Valve piston
104	Socket head cap screw
*105	Pressure spring (2x)
*106	Seal ring
*107	Seal ring
400	Solenoid
701	Core tube
*702	Straight pin
703	Round plate
*704	Pressure spring
*705	Core
1400	Socket (included)
1501	Hexagon screw
1502	Round plate
*1504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

\* 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

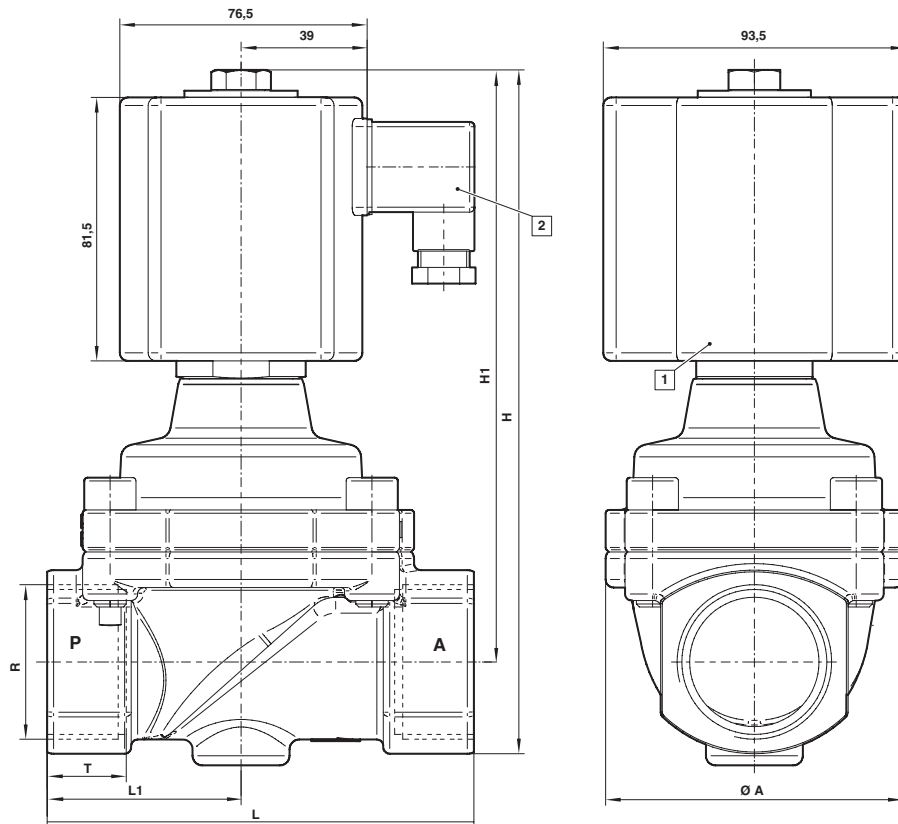
Dimensions in mm  
Projection/First angle



- 1 Solenoid rotatable 360°
- 2 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	8674000.830x.xxxxx
1/4 NPT	44	143	132	60	27,5	10	8675000.830x.xxxxx
G3/8	44	143	132	60	27,5	12	8674100.830x.xxxxx
3/8 NPT	44	143	132	60	27,5	10,5	8675100.830x.xxxxx
G1/2	44	145	132	67	31	14	8674200.830x.xxxxx
1/2 NPT	44	145	132	67	31	13,5	8675200.830x.xxxxx
G3/4	50	154	137	80	35,5	16	8674300.830x.xxxxx
3/4 NPT	50	154	137	80	35,5	14	8675300.830x.xxxxx
G1	62	164	143,5	95	44	18	8674400.830x.xxxxx
1 NPT	62	164	143,5	95	44	17	8675400.830x.xxxxx

Dimensions in mm  
 Projection/First angle

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


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

Port size R	ø A	H	H1	L	L1	T	Model
G1 1/4	92	212,5	183,5	132	60	20	8674500.840x.xxxxx
1 1/4 NPT	92	212,5	183,5	132	60	17	8675500.840x.xxxxx
G1 1/2	92	212,5	183,5	132	60	22	8674600.840x.xxxxx
1 1/2 NPT	92	212,5	183,5	132	60	17	8675600.840x.xxxxx
G2	109	226,5	192	160	74	24	8674700.840x.xxxxx
2 NPT	109	226,5	192	160	74	17,5	8675700.840x.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.