

- > Port size: DN 8 ... 50, 1/4" ... 2" (ISO G/NPT)
- > High flow rate
- > For robust industry solutions
- > Damped operation
- > Suitable for vacuum
- > For systems with low or fluctuating pressure
- > Valve operates without differential pressure
- > Solenoid interchangeable without tools (*Click-on®*)



### Technical features

**Medium:**

Slightly aggressive gases and liquids

**Switching function:**

Normally closed

**Operation:**

Solenoid actuated, with forced lifting

**Mounting position:**

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 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:**

See table

**Fluid temperature:**

-10° ... +90°C (+14° ... +194°F)

**Ambient temperature:**

-10° ... +50°C (+14° ... +122°F)

**Material:**

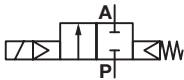
Body: Stainless steel (1.4408)

Seat seal: NBR-K

Internal parts: Stainless steel, PVDF

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) (bar)	Weight (kg)	Model Solenoid V d.c.	Model Solenoid V a.c.
	G1/4	8	1,9	0 ... 10	0,7	8259000.9151.xxxxx	8259000.9154.xxxxx
	1/4 NPT	8	1,9	0 ... 10	0,7	8449000.9151.xxxxx	8449000.9154.xxxxx
	G3/8	10	3	0 ... 10	0,7	8259100.9151.xxxxx	8259100.9154.xxxxx
	3/8 NPT	10	3	0 ... 10	0,7	8449100.9151.xxxxx	8449100.9154.xxxxx
	G1/2	12	3,4	0 ... 10	0,8	8259200.9151.xxxxx	8259200.9154.xxxxx
	1/2 NPT	12	3,4	0 ... 10	0,8	8449200.9151.xxxxx	8449200.9154.xxxxx
	G3/4	20	5,8	0 ... 10	0,9	8259300.9151.xxxxx	8259300.9154.xxxxx
	3/4 NPT	20	5,8	0 ... 10	0,9	8449300.9151.xxxxx	8449300.9154.xxxxx
	G1	25	8	0 ... 10	1,3	8259400.9151.xxxxx	8259400.9154.xxxxx
	1 NPT	25	8	0 ... 10	1,3	8449400.9151.xxxxx	8449400.9154.xxxxx
	G 1 1/4	32	23	0 ... 16	4,3	8259500.9401.xxxxx	8259500.9404.xxxxx
	1 1/4 NPT	32	23	0 ... 16	4,3	8449500.9401.xxxxx	8449500.9404.xxxxx
	G 1 1/2	40	25	0 ... 16	4,1	8259600.9401.xxxxx	8259600.9404.xxxxx
	1 1/2 NPT	40	25	0 ... 16	4,1	8449600.9401.xxxxx	8449600.9404.xxxxx
	G2	50	41	0 ... 16	5,1	8259700.9401.xxxxx	8259700.9404.xxxxx
	2 NPT	50	41	0 ... 16	5,1	8449700.9401.xxxxx	8449700.9404.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 25 mm²/s (cSt)

G 1/4 ... G 1 resp. 1/4 NPT ... 1 NPT max. 16 bar on request

### Option selector

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Thread form	Substitute
ISO G	25
NPT	44
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), from G1 1/4 (1 1/4 NPT) only wi h solenoid 8400	01
Seat seal FPM, Fluid temperature -5 ... +110°C	03
Seat seal EPDM, for hot water, Fluid temperature -10 ... +110°C	14
Normally open, Seat seal FPM, Fluid temperature -5 ... +110°C, from G1 1/4 (1 1/4 NPT) only wi h solenoid 8400	17
Version for drinking water with test according to KTW	88

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See Voltage codes	xxx
Solenoid options	Substitute
G1/4 ... 1 Operating pressure 0 ... 10 bar Solenoid in V d.c.	9151
G1 1/4 ... 2 Operating pressure 0 ... 16 bar Solenoid in V d.c.	9401
G1/4 ... 1 Operating pressure 0 ... 10 bar Solenoid in V a.c.	9154
G1 1/4 ... 2 Operating pressure 0 ... 16 bar Solenoid in V a.c.	9404

### Standard solenoid systems

Voltage and Frequency Solenoid 9151/9154 *1)					
Code Voltage	Code Frequency	Voltage	Frequency	Power consumption	
				Inrush	Holding
024	00	24 V DC	-	18 W	18 W
024	50	24 V AC	50 Hz	20 VA	20 VA
110	50	110 V AC	50 Hz	20 VA	20 VA
120	60	120 V AC	60 Hz	20 VA	20 VA
230	50	230 V AC	50 Hz	20 VA	20 VA
Voltage and Frequency Solenoid 9401/9404 *1)					
024	00	24 V DC	-	38 W	38 W
024	50	24 V AC *2)	40 ... 60 Hz	42 VA	42 VA
110	50	110 V AC *2)	40 ... 60 Hz	42 VA	42 VA
120	60	120 V AC *2)	40 ... 60 Hz	42 VA	42 VA
230	50	230 V AC *2)	40 ... 60 Hz	42 VA	42 VA
Voltage and Frequency Solenoid 8401/8404					
024	00	24 V DC	-	40 W	40 W
024	49	24 V AC *2)	40 ... 60 Hz	45 VA	45 VA
110	49	110 V AC *2)	40 ... 60 Hz	45 VA	45 VA
120	49	120 V AC *2)	40 ... 60 Hz	45 VA	45 VA
230	49	230 V AC *2)	40 ... 60 Hz	45 VA	45 VA

\*1) c<sub>US</sub> coil only (with the exception of solenoid 94xx up to 41 V a.c.)  
\*2) A.c. only with rectifier plug

Further versions on request!

### Electrical details for all solenoid systems

<b>Design</b>	DIN VDE 0580
<b>Voltage range</b>	±10%
<b>Duty cycle</b>	100% ED
<b>Protection class</b>	EN 60529 IP65
<b>Socket</b>	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

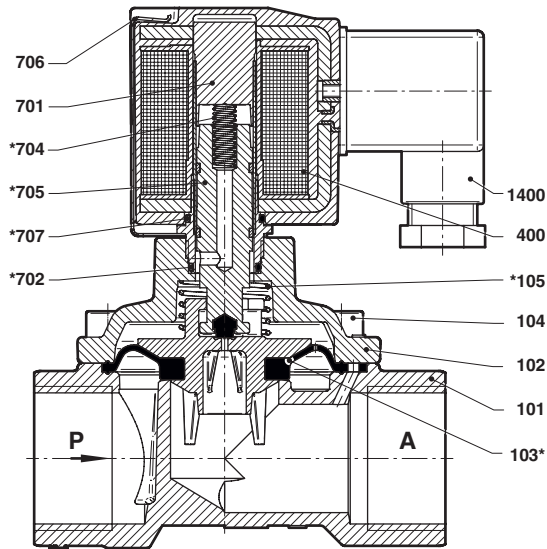
ATEX category	Protection class	Solenoid	Standard voltages
II2GD	EEx me II T3 T 140°C	9191	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	8426	24 V d.c., 110 V a.c., 230 V a.c.
II2G	EEx me II T3 T 140°C	8441	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	9176	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	9426	24 V d.c., 110 V a.c., 230 V a.c.

#### Attention!

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

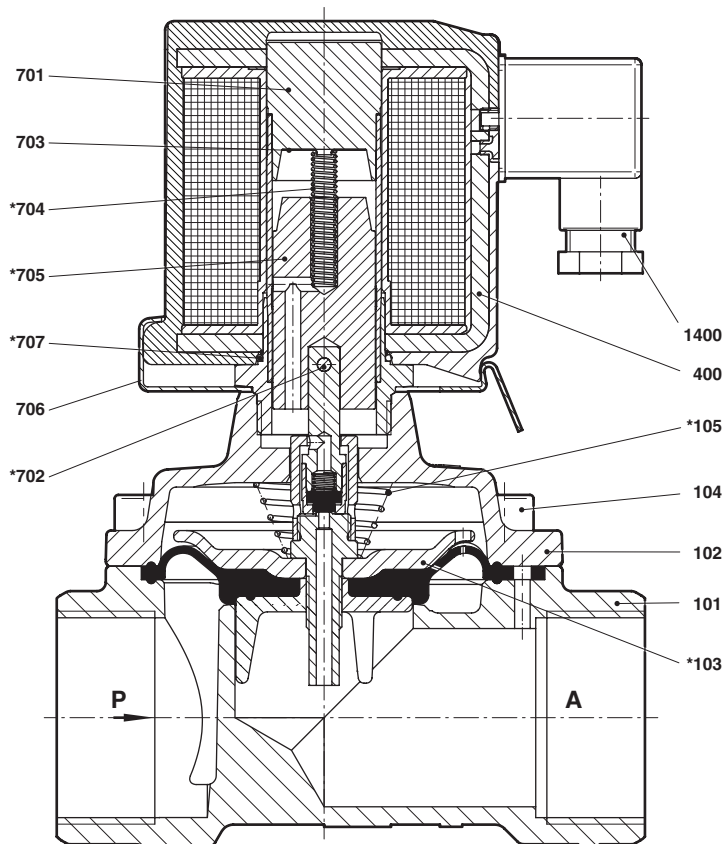
**Section View**

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



No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
*704	Pressure spring
*705	Core
706	Spring clip
*707	O-ring
1400	Socket (included)

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



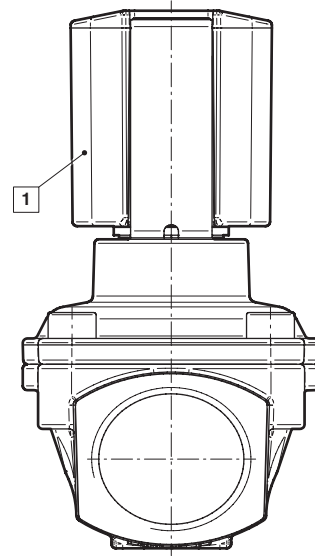
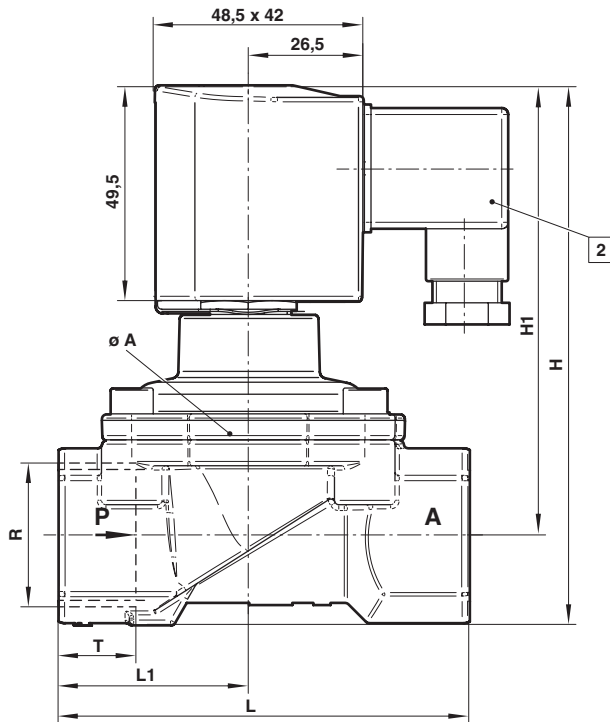
No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
*704	Pressure spring
*705	Core
706	Spring clip
*707	O-ring
1400	Socket (included)

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

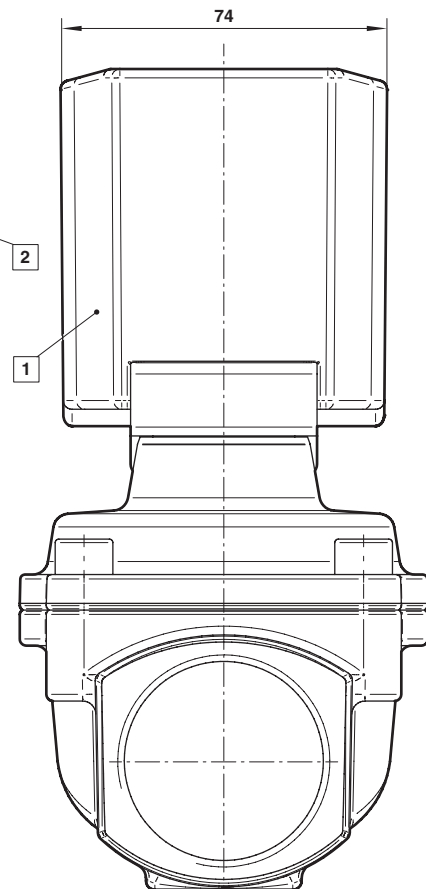
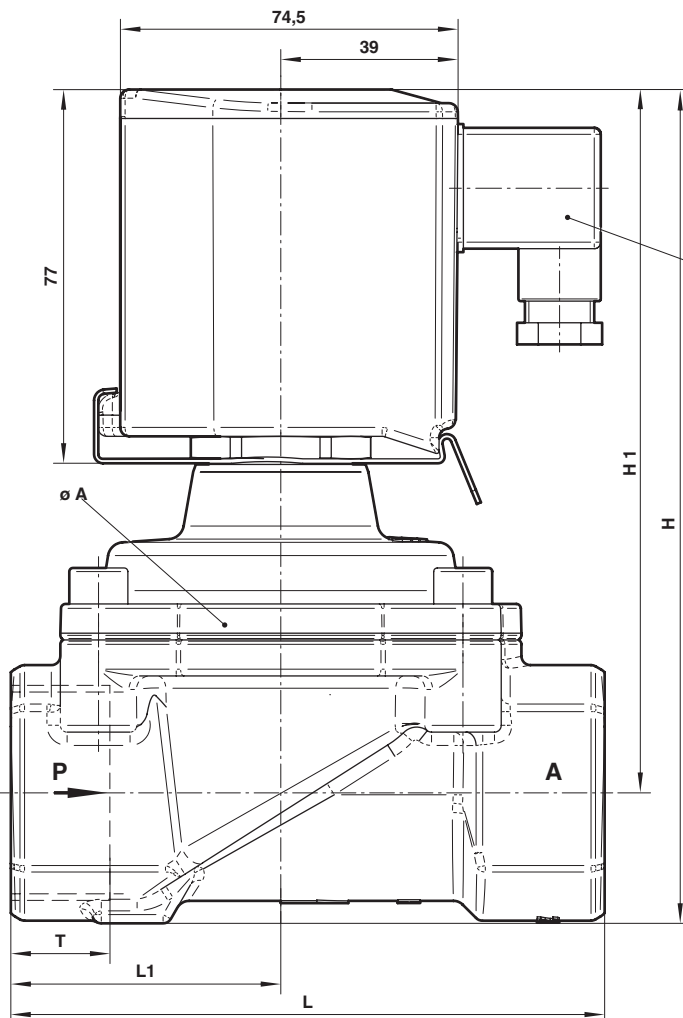
Dimensions

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

Dimensions in mm  
Projection/First angle



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



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



**Dimensions**

**G1/4 ... 2**

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

Port size R	ø A	H	H1	L	L1	T	Model
G1/4	44	104	92,5	60	27,5	12	8259000.915x.xxxx
1/4 NPT	44	104	92,5	60	27,5	10	8449000.915x.xxxx
G3/8	44	104	92,5	60	27,5	12	8259100.915x.xxxx
3/8 NPT	44	104	92,5	60	27,5	10,5	8449100.915x.xxxx
G1/2	44	108	94,5	67	31	14	8259200.915x.xxxx
1/2 NPT	44	108	94,5	67	31	13,5	8449200.915x.xxxx
G3/4	50	115	99	80	36,5	16	8259300.915x.xxxx
3/4 NPT	50	115	99	80	36,5	14	8449300.915x.xxxx
G1	62	124	103,5	95	44	18	8259400.915x.xxxx
1 NPT	62	124	103,5	95	44	17	8449400.915x.xxxx
G 1 1/4	92	186	157	132	60	20	8259500.940x.xxxx
1 1/4 NPT	92	186	157	132	60	17	8449500.940x.xxxx
G1 1/2	92	186	157	132	60	22	8259600.940x.xxxx
1 1/2 NPT	92	186	157	132	60	17	8449600.940x.xxxx
G2	109	201,5	167	160	74	24	8259700.940x.xxxx
2 NPT	109	201,5	167	160	74	17,5	8449700.940x.xxxx

**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 61000-6-3 and EN 61000-6-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2004/108/EG) satisfield.