

82510/82520 2/2-way seat valves

- > Port size: 1/8 ... 3/8 (ISO G/NPT)
- > Suitable for vacuum
- > High flow rate
- > Functional compact design
- > Body with M5 fastening thread as standard
- > Solenoid interchangeable without tools (Click-on®)
- > Valve operates without pressure differential
- > International approvals



Technical features

Medium:

Neutral gases and liquids

Switching function:

Normally closed

Operation:

Directly solenoid actuated

Mounting position:

Optional, preferably solenoid vertical on top

Flow direction:

Determined

Port size:

G1/8, G1/4, G3/8

1/8 NPT, 1/4 NPT, 3/8 NPT

Operating pressure:

See table

Fluid temperature:

-10° ... +90°C (+14° ... +194°F)

Ambient temperature:

-10° ... +50°C (+14° ... +122°F)

Material:

Body: Brass (CW617N)

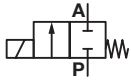
Seat seal: NBR

(70 bar version – PTFE)

Internal parts: Stainless steel, Brass

For contaminated fluids insertion of a strainer is recommended.

Technical data – Standard models – Valves normally closed

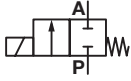
Symbol	Port size	Orifice (mm)	Flow kv value *1) (m ³ /h)	Operating pressure *2)		Weight (kg)	Model Solenoid in V d.c. /a.c.
				(bar)	(psi)		
	G1/8	1,5	0,07	0 ... 25	0 ... 362	0,33	8251800.9101.xxxxx
	1/8 NPT	1,5	0,07	0 ... 25	0 ... 362	0,33	8252800.9101.xxxxx
	G1/4	1,5	0,07	0 ... 25	0 ... 362	0,33	8251000.9101.xxxxx
	1/4 NPT	1,5	0,07	0 ... 25	0 ... 362	0,33	8252000.9101.xxxxx
	G3/8	1,5	0,07	0 ... 25	0 ... 362	0,33	8251100.9101.xxxxx
	3/8 NPT	1,5	0,07	0 ... 25	0 ... 362	0,33	8252100.9101.xxxxx
	G1/8	1,5	0,07	0 ... 70	0 ... 1015	0,57	8251807.9151.xxxxx
	1/8 NPT	1,5	0,07	0 ... 70	0 ... 1015	0,57	8252807.9151.xxxxx
	G1/4	1,5	0,07	0 ... 70	0 ... 1015	0,57	8251007.9151.xxxxx
	1/4 NPT	1,5	0,07	0 ... 70	0 ... 1015	0,57	8252007.9151.xxxxx
	G3/8	1,5	0,07	0 ... 70	0 ... 1015	0,57	8251107.9151.xxxxx
	3/8 NPT	1,5	0,07	0 ... 70	0 ... 1015	0,57	8252107.9151.xxxxx
	G1/8	2,5	0,15	0 ... 10	0 ... 1015	0,33	8251820.9101.xxxxx
	1/8 NPT	2,5	0,15	0 ... 10	0 ... 1015	0,33	8252820.9101.xxxxx
	G1/4	2,5	0,15	0 ... 10	0 ... 1015	0,33	8251020.9101.xxxxx
	1/4 NPT	2,5	0,15	0 ... 10	0 ... 1015	0,33	8252020.9101.xxxxx
	G3/8	2,5	0,15	0 ... 10	0 ... 1015	0,33	8251120.9101.xxxxx
	3/8 NPT	2,5	0,15	0 ... 10	0 ... 1015	0,33	8252120.9101.xxxxx
	G1/8	2,5	0,15	0 ... 40	0 ... 580	0,57	8251820.9151.xxxxx
	1/8 NPT	2,5	0,15	0 ... 40	0 ... 580	0,57	8252820.9151.xxxxx
	G1/4	2,5	0,15	0 ... 40	0 ... 580	0,57	8251020.9151.xxxxx
	1/4 NPT	2,5	0,15	0 ... 40	0 ... 580	0,57	8252020.9151.xxxxx
	G3/8	2,5	0,15	0 ... 40	0 ... 580	0,57	8251120.9151.xxxxx
	3/8 NPT	2,5	0,15	0 ... 40	0 ... 580	0,57	8252120.9151.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)

Technical data – Standard models – Valves normally closed

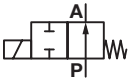
Symbol	Port size	Orifice (mm)	Flow kv value *3) (m ³ /h)	Operating pressure *4)		Weight (kg)	Typ Solenoid in V d.c. /a.c.
				(bar)	(psi)		
	G1/8	3	0,21	0 ... 4	0 ... 58	0,33	8251840.9101.xxxxx
	1/8 NPT	3	0,21	0 ... 4	0 ... 58	0,33	8252840.9101.xxxxx
	G1/4	3	0,21	0 ... 4	0 ... 58	0,33	8251040.9101.xxxxx
	1/4 NPT	3	0,21	0 ... 4	0 ... 58	0,33	8252040.9101.xxxxx
	G3/8	3	0,21	0 ... 4	0 ... 58	0,33	8251140.9101.xxxxx
	3/8 NPT	3	0,21	0 ... 4	0 ... 58	0,33	8252140.9101.xxxxx
	G1/8	3	0,21	0 ... 20	0 ... 290	0,57	8251840.9151.xxxxx
	1/8 NPT	3	0,21	0 ... 20	0 ... 290	0,57	8252840.9151.xxxxx
	G1/4	3	0,21	0 ... 20	0 ... 290	0,57	8251040.9151.xxxxx
	1/4 NPT	3	0,21	0 ... 20	0 ... 290	0,57	8252040.9151.xxxxx
	G3/8	3	0,21	0 ... 20	0 ... 290	0,57	8251140.9151.xxxxx
	3/8 NPT	3	0,21	0 ... 20	0 ... 290	0,57	8252140.9151.xxxxx
	G1/8	4	0,35	0 ... 12	0 ... 174	0,57	8251860.9151.xxxxx
	1/8 NPT	4	0,35	0 ... 12	0 ... 174	0,57	8252860.9151.xxxxx
	G1/4	4	0,35	0 ... 12	0 ... 174	0,57	8251060.9151.xxxxx
	1/4 NPT	4	0,35	0 ... 12	0 ... 174	0,57	8252060.9151.xxxxx
	G3/8	4	0,35	0 ... 12	0 ... 174	0,57	8251160.9151.xxxxx
	3/8 NPT	4	0,35	0 ... 12	0 ... 174	0,57	8252160.9151.xxxxx
	G1/8	5	0,5	0 ... 6	0 ... 87	0,57	8251880.9151.xxxxx
	1/8 NPT	5	0,5	0 ... 6	0 ... 87	0,57	8252880.9151.xxxxx
	G1/4	5	0,5	0 ... 6	0 ... 87	0,57	8251080.9151.xxxxx
	1/4 NPT	5	0,5	0 ... 6	0 ... 87	0,57	8252080.9151.xxxxx
	G3/8	5	0,5	0 ... 6	0 ... 87	0,57	8251180.9151.xxxxx
	3/8 NPT	5	0,5	0 ... 6	0 ... 87	0,57	8252180.9151.xxxxx

xxxxx Please insert voltage and frequency codes

*3) Cv-value (US) ≈ kv value x 1,2

 *4) For gases and liquid fluids up to 25 mm²/s (cSt)

Technical data – Standard models – Valves normally open

Symbol	Port size	Orifice (mm)	Flow kv value *5) (m ³ /h)	Operating pressure *6)		Weight (kg)	Model Solenoid in V d.c. /a.c.
				(bar)	(psi)		
	G1/4	1,5	0,07	0 ... 16	0 ... 232	0,33	8251001.9101.xxxxx
	1/4 NPT	1,5	0,07	0 ... 16	0 ... 232	0,33	8252001.9101.xxxxx
	G1/4	2,5	0,15	0 ... 6	0 ... 87	0,33	8251021.9101.xxxxx
	1/4 NPT	2,5	0,15	0 ... 6	0 ... 87	0,33	8252021.9101.xxxxx
	G1/4	2,5	0,15	0 ... 25	0 ... 362	0,57	8251021.9151.xxxxx
	1/4 NPT	2,5	0,15	0 ... 25	0 ... 362	0,57	8252021.9151.xxxxx
	G1/4	3	0,21	0 ... 3	0 ... 43	0,33	8251041.9101.xxxxx
	1/4 NPT	3	0,21	0 ... 3	0 ... 43	0,33	8252041.9101.xxxxx
	G1/4	3	0,21	0 ... 16	0 ... 232	0,57	8251041.9151.xxxxx
	1/4 NPT	3	0,21	0 ... 16	0 ... 232	0,57	8252041.9151.xxxxx
	G1/4	4	0,35	0 ... 8	0 ... 116	0,57	8251061.9151.xxxxx
	1/4 NPT	4	0,35	0 ... 8	0 ... 116	0,57	8252061.9151.xxxxx

xxxxx Please insert voltage and frequency codes

*5) Cv-value (US) ≈ kv value x 1,2

*6) For gases and liquid fluids up to 25 mm²/s (cSt)

Option selector
825*****

Thread form	Substitute
ISO G	1
NPT	2
Port size	Substitute
1/8	8
1/4	0
3/8	1
Valve options	Substitute
Normally closed (NC), DN 1,5 Operating pressure 0 ... 25 bar (0 ... 362 psi) (with solenoid 9101)	00
Normally open (NO), DN 1,5 Operating pressure 0 ... 16 bar (0 ... 174 psi) (with solenoid 9101)	01
Seat seal PTFE Normally closed (NC), DN 1,5 Operating pressure 0 ... 70 bar (0 ... 1015 psi) (with solenoid 9151)	07
Normally closed (NC), DN 2,5 Operating pressure 0 ... 10 bar (0 ... 145 psi) (with solenoid 9101)	20
Normally closed (NC), DN 2,5 Operating pressure 0 ... 40 bar (0 ... 580 psi) (with solenoid 9151)	20
Normally open (NO), DN 2,5 Operating pressure 0 ... 6 bar (0 ... 87 psi) (with solenoid 9101)	21
Normally open (NO), DN 2,5 Operating pressure 0 ... 25 bar (0 ... 362 psi) (with solenoid 9151)	21
Normally closed (NC), DN 3 Operating pressure 0 ... 4 bar (0 ... 58 psi) (with solenoid 9101)	40
Normally closed (NC), DN 3 Operating pressure 0 ... 20 bar (0 ... 290 psi) (with solenoid 9151)	40
Normally open (NO), DN 3 Operating pressure 0 ... 3 bar (0 ... 43 psi) (with solenoid 9101)	41
Normally open (NO), DN 3 Operating pressure 0 ... 16 bar (0 ... 362 psi) (with solenoid 9151)	41
Normally closed (NC), DN 4 Operating pressure 0 ... 12 bar (0 ... 174 psi) (with solenoid 9151)	60
Normally open (NO), DN 4 Operating pressure 0 ... 8 bar (0 ... 116 psi) (with solenoid 9151)	61
Normally closed (NC), DN 5 Operating pressure 0 ... 6 bar (0 ... 87 psi) (with solenoid 9151)	80

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See table voltage codes	xxx
Solenoid options	Substitute
Solenoid 9101	9101
Solenoid 9151	9151

Standard solenoid systems

Voltage and Frequency Solenoid 9101

Code Voltage	Code Frequency	Voltage	Frequency	Power consumption	
				Inrush	Holding
024	00	24 V d.c.	-	8 W	8 W
024	50	24 V a.c.	50 Hz	15 VA	12 VA
110	50	110 V a.c.	50 Hz	15 VA	12 VA
120	60	120 V a.c.	60 Hz	15 VA	12 VA
230	50	230 V a.c.	50 Hz	15 VA	12 VA

Voltage and Frequency Solenoid 9151

024	00	24 V d.c.	-	18 W	18 W
024	50	24 V a.c.	50 Hz	45 VA	35 VA
110	50	110 V a.c.	50 Hz	45 VA	35 VA
120	60	120 V a.c.	60 Hz	45 VA	35 VA
230	50	230 V a.c.	50 Hz	45 VA	35 VA

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 2G II 2D	Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db	IP66	6106	24 V d.c., 110 V a.c., 230 V a.c.
II 2G II 2D	Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db	IP66	6126	24 V d.c., 110 V a.c., 230 V a.c.
II 3G II 3D	Ex ec IIC T4 Gc Ex tc IIIC T130°C Dc	IP65	9116	24 V d.c., 110 V a.c., 230 V a.c.
I 3G II 3D	Ex ec IIC T4 Gc Ex tc IIIC T130°C Dc	IP65	9176	24 V d.c., 110 V a.c., 230 V a.c.

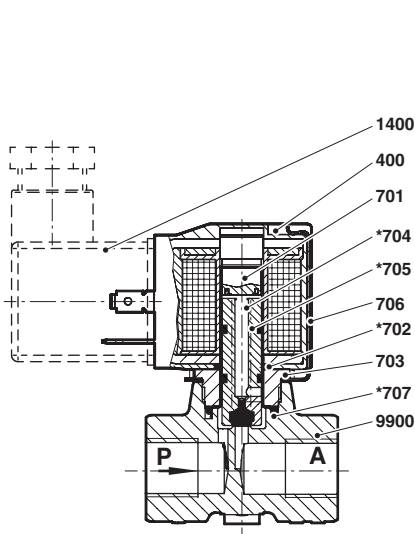
Attention!

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

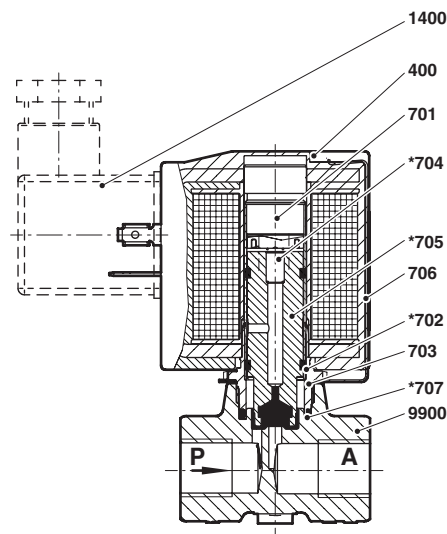
Section view

G1/8 ... 3/8

Solenoid 9101



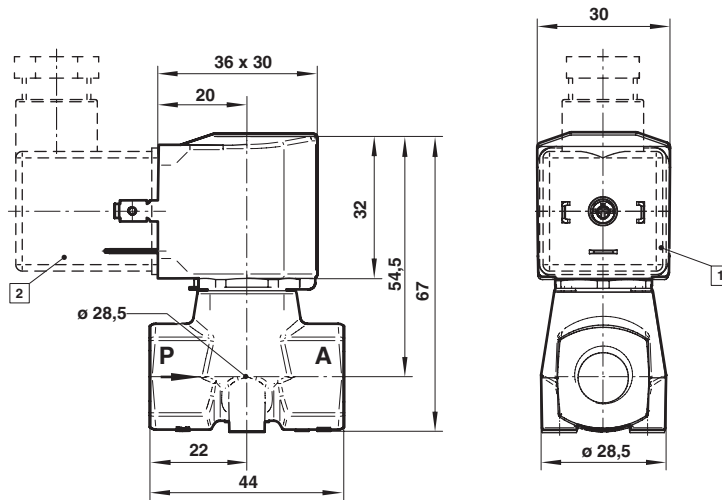
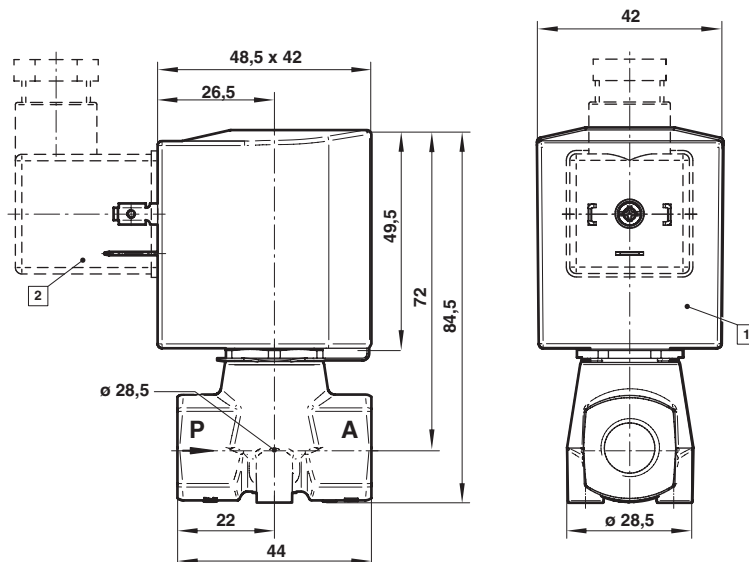
Solenoid 9151



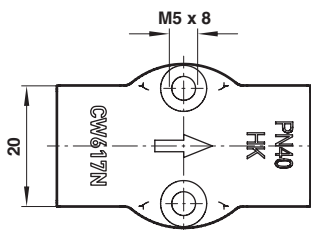
No.	Description
400	Solenoid
701	Core tube
702	O-ring
703	Screw piece
*704	Pressure spring
*705	Plunger
706	Spring clip
*707	O-ring
1400	Socket (included)
9900	Valve body

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

Dimensions
Solenoid 9101

 Dimensions in mm
 Projection/First angle

Solenoid 9151


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


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.