

- > Port size: DN 1,6 and 3
- > Compact design
- > Complete with connector and gasket
- > Solenoid interchangeable without tools (*Click-on®*)
- > Noiseless exhaust
- > Low power consumption



### Technical features

**Medium:**

Filtered, lubricated resp. non-lubricated air or neutral liquid fluids

**Switching function:**

Normally closed

**Operation:**

Indirectly solenoid actuated

**Mounting:**

Optional, preferably solenoid vertical on top

**Flow direction:**

Determined

**Port size:**

DN 1,6, DN 3

**Operating pressure:**

1 ... 10 bar (14,5 ... 145 psi)

**Fluid temperature:**

-10° ... +60°C (+14° ... +140°F)

**Ambient temperature:**

-10° ... +60°C (+14° ... +140°F)

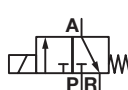
**Material:**

Body: Aluminium

Seat seal: TPU

Internal parts: Stainless steel, PPS

### Technical datas - standard models

Symbol	Orifice (mm)	Port size			Flow *2) (l/min)	Operating pressure (bar)	Switching time (ms) *3)		Weight (kg)	Model Solenoid in V d.c.	Model Solenoid in V a.c.
		Internal	External R	A			On	Off			
	1,6	G1/4	*1)	G1/4	1,2	1 ... 10	8,5	30,4	0,47	8466000.9101.xxxxx	8466000.9101.xxxxx
	1,6	1/4 NPT	*1)	1/4 NPT	1,2	1 ... 10	8,5	30,4	0,47	8467000.9101.xxxxx	8467000.9101.xxxxx
	3	G1/4	*1)	G1/4	3,3	1 ... 10	15	81,9	0,45	8468000.9151.xxxxx	8468000.9151.xxxxx
	3	1/4 NPT	*1)	1/4 NPT	3,2	1 ... 10	15	81,9	0,45	8469000.9151.xxxxx	8469000.9151.xxxxx

xxxxx Please insert voltage and frequency codes

\*1) Noiseless exhaust

\*2) Cv-value (US) ≈ kv-value x 1,2

\*3) At 6 bar acc. to DIN VDI 3290 with solenoid in d.c.

### Option selector


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Thread form/Port size	Substitute
ISO G (DN 1,6)	6
NPT (DN 1,6)	7
ISO G (DN 3)	8
NPT (DN 3,0)	9
Valve options	Substitute
Manual override	02
Connection P female thread G1/8	53
Connection A male thread G1/8	

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See Voltage codes	xxx
Solenoid options	Substitute
DN 1,6	9101
DN 3	9151

### Standard solenoid systems

Voltage and Frequency Solenoid 9101 *1)					
Code Voltage	Code Frequency	Voltage	Frequency	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 *1)					
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

\*1)  coil only maintaining the ambient temperature of +50°C

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

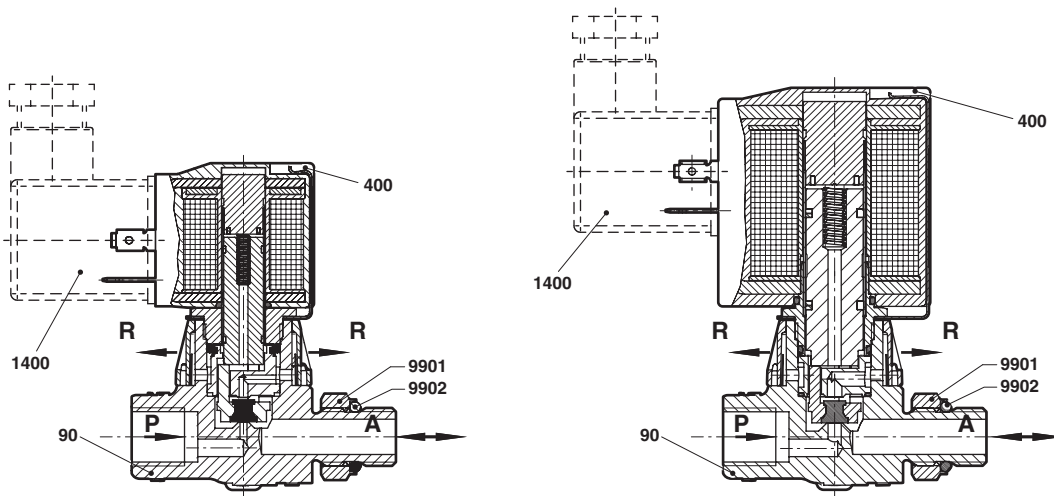
ATEX category	Protection class	Solenoid	Standard voltages
II2GD	EEx m II T4 T 130°C wi h 3 m connection cable for Series 84660/84670	9136	24 V d.c., 110 V a.c., 230 V a.c.
II2GD	EEx m II T3 T 130°C wi h 3 m connection cable for Series 84680/84690	9191	24 V d.c., 110 V a.c., 230 V a.c.

#### 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

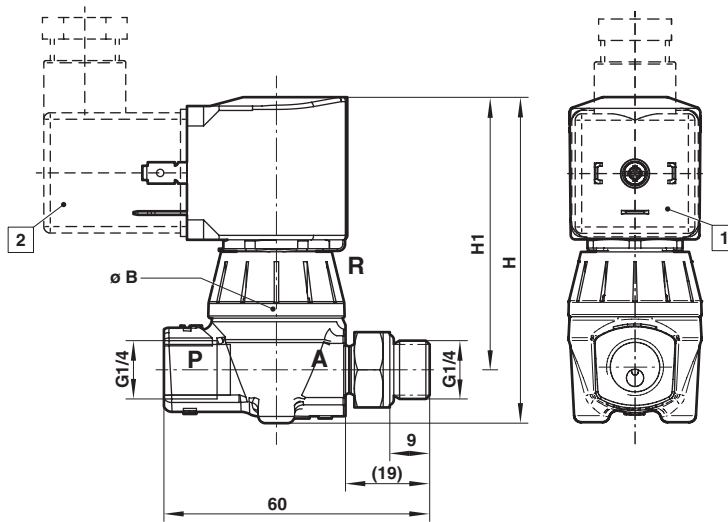
#### DN 1,6 ... 3



Nr.	Bezeichnung
90	3/2-way valve without solenoid incl. pos. 9901 special hexagon nut and pos. 9902 O-ring
400	Solenoid
1400	Socket (included)
9901	Special hexagon nut
9902	O-ring

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

**Dimensions**
**DN 1,6 ... 3**

 Dimensions in mm  
 Projection/First angle


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

Orifice (mm)	$\phi B$	H	H1	Model
1,6	31	73,6	61,5	8466000.9101.xxxxx
1,6	31	73,6	61,5	8467000.9101.xxxxx
3	31	91	79	8468000.9151.xxxxx
3	31	91	79	8469000.9151.xxxxx

**Note to Pressure Equipment Directive (PED):**

The valves of this series 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.

**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) satisfied.