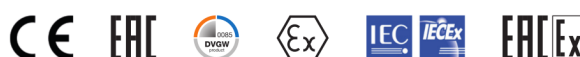


# 84660/84670/84680/84690

## 3/2-way valves

- > 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
- > International approvals

Click-on®



### 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)

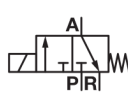
**Material:**

Body: Aluminium

Seat seal: TPU

Internal parts: Stainless steel, PPS

### Technical data – standard models

Symbol	Orifice (mm)	Port size		Flow *2) (l/min)	Operating pressure (bar)	Switching time *3)		Weight (kg)	Model		
		Internal P	External R			On	Off		Solenoid in V d.c.	Solenoid in V a.c.	
	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**

846★0★★.★★★.★★★

Thread form/Port size	Substitute
ISO G (DN 1,6)	6
NPT (DN 1,6)	7
ISO G (DN 3)	8
NPT (DN 3)	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 table voltage codes	xxx
Solenoid options	Substitute
DN 1,6	9101
DN 3	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**

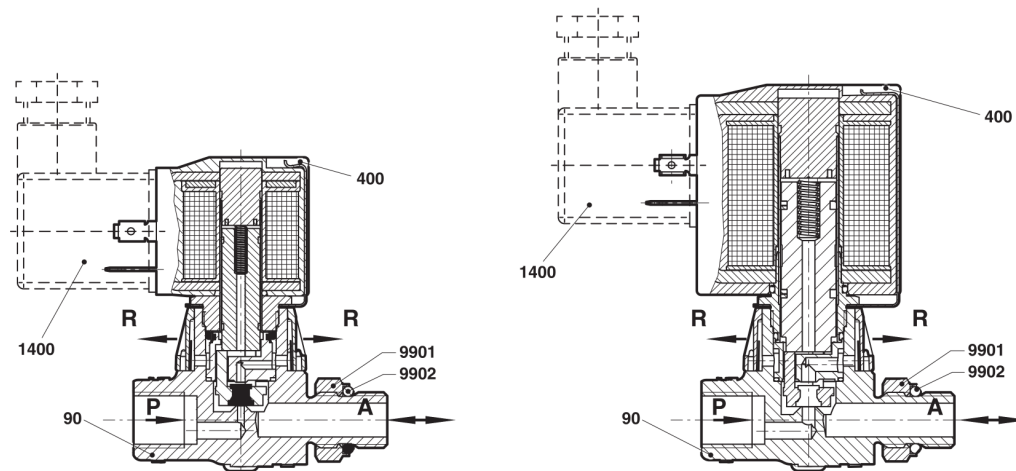
ATEX category	ATEX protection class	IP protection class	Solenoid	Standard voltages
II 2G II 2D	Ex eb mb IIC T4 Gb Ex mb tb IIIB T125°C Db	IP66	6106	24 V d.c., 110 V a.c., 230 V a.c.
II 2G II 2D	Ex eb mb IIC T3 Gb Ex mb tb IIIB T140°C Db	IP66	6120	24 V d.c., 110 V a.c., 230 V a.c.
II 3G II 3D	Ex ec IIC T4 Gc Ex tc IIIC T130°C Dc	IP65	9116	24 V d.c., 110 V a.c., 230 V a.c.
II 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**

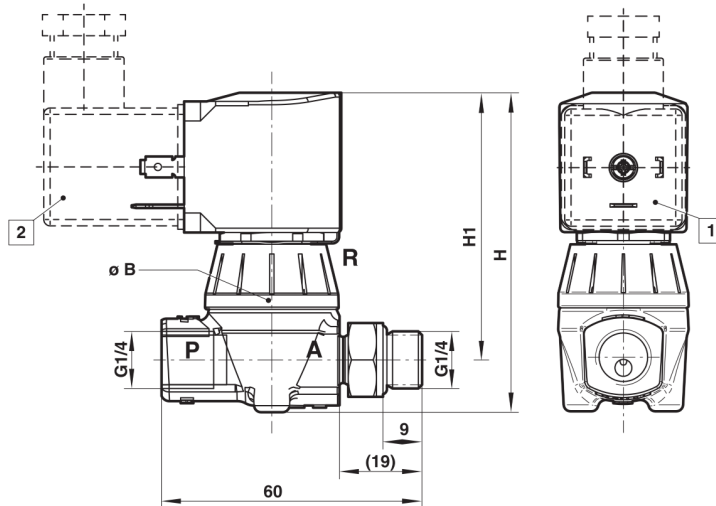
DN 1,6 ... 3



No.	Description
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)	ø 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. 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.

**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) is satisfied.

**Note to EAC marking:**

The EAC-marked products comply with the applicable requirements stated in the technical regulations of the Eurasian Economic Union.