

# 83320 2/2-way diaphragm valves

- Port size: DN 20 ... 40, G3/4 ... 1 1/2 (ISO G/NPT)
- High flow rate
- All internal components captive
- Clear, compact design
- Solenoid interchangeable without tools (Twist-on®)
- Integrated silencer
- One-piece diaphragm
- International approvals



## Technical features

**Medium:**  
Air

**Switching function:**  
Normally closed

**Operation:**  
Solenoid pilot operated

**Flow direction:**  
Determined

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

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

**Operating pressure:**  
0,4 ... 8 bar (5,8 ... 116 psi)

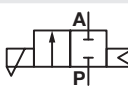
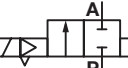
**Dusty gas temperature:**  
-40° ... +85°C (-40° ... +185°F)

**Ambient temperature:**  
-20° ... +85°C (-4° ... +185°F)

**Cleaning gas temperature:**  
-40° ... +85°C (-40° ... +185°F)

**Material:**  
Body: Stainless steel 1.4408  
Seat seal: TPE  
Internal parts: TPU

## Technical data – standard models

Symbol	Port size	Orifice (mm)	Valve length (mm)	Flow kv value *1) (m³/h)	Operating pressure		Weight (kg)	Model
					(bar)	(psi)		
	G3/4	20	95	18	0,4 ... 8	5,8 ... 116	0,92	8332300.8171.xxxxx
	G1	25	95	22	0,4 ... 8	5,8 ... 116	1,01	8332400.8171.xxxxx
	G1 1/2	40	135	59	0,4 ... 8	5,8 ... 116	3,11	8332600.8171.xxxxx

xxxxx Please insert voltage and frequency codes

\*1) Cv-value (US) ≈ kv value x 1,2

### Option selector

8332\*\*\*.8171.\*\*\*\*\*

Port size	Substitute
3/4	3
1	4
1 1/2	6
Valve options	Substitute
Flange version without valve body	54
Dusty gas temperature version -40 ... +100°C (-40 ... +212°F), Seat seal TPE, Ambient temperature -20 ... +85°C (-4 ... +185°F), Cleaning gas temperature -40 ... +85°C (-40 ... +185°F)	62
Dusty gas temperature version -40 ... +140°C (-40 ... +284°F), Seat seal TPE, Ambient temperature -20 ... +85°C (-4 ... +185°F), Cleaning gas temperature -40 ... +85°C (-40 ... +185°F)	63
Low temperature version Dusty gas temperature version -40 ... +85°C (-40 ... +185°F), Seat seal TPE, Ambient temperature -40 ... +85°C (-4 ... +185°F), Cleaning gas temperature -40 ... +85°C (-40 ... +185°F) Not in combination with with solenoid system 817x	71

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See table voltage codes	xxx

### Standard solenoid systems

Voltage and Frequency Solenoid 8171 *2)					
Code	Code	Voltage	Frequency	Power consumption	
Voltage	Frequency			Inrush	Holding
024	00	24 V d.c.	-	12 W	12 W
024	50	24 V a.c.	50 Hz	23 VA	16 VA
110	50	110 V a.c.	50 Hz	23 VA	16 VA
120	60	120 V a.c.	60 Hz	23 VA	16 VA
230	50	230 V a.c.	50 Hz	23 VA	16 VA

\*2) Us only

### 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 db mb IIC T4/T5 Gb Ex tb IIIC T130°C/ T95°C Db	IP66	468x	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	8176	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 T135°C Db	IP66	6176	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.

### Additional solenoid systems

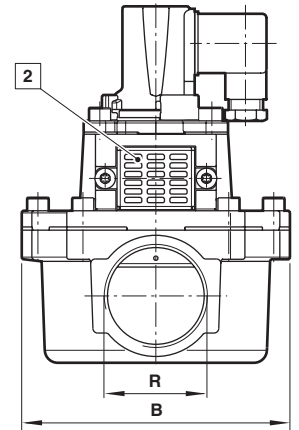
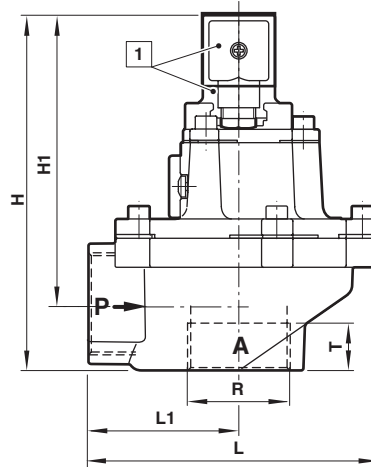
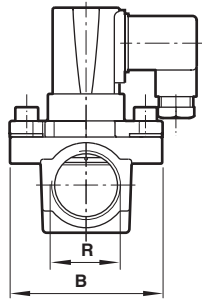
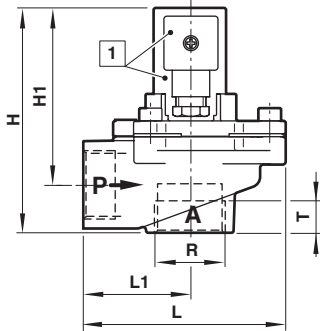
Option	Solenoid	Standard voltages
Solenoid version for low temperature -40°C	9151	24 V d.c., 110 V a.c., 230 V a.c.

## Dimensions

G3/4 ... 1

G1 1/2

Dimensions in mm  
Projection/first angle



- 1 Solenoid rotatable 3 x 120°  
Socket turnable 4 x 90°  
(Socket included)
- 2 Silencer

Port size R	B	H	H1	L	L1	T	Model
G3/4	80	105,5	83	95	50	18	8332300.8171.xxxxx
G1	80	105,5	83	95	50	18	8332400.8171.xxxxx
G1 1/2	124,5	166	136	135	70	22	8332600.8171.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) satisfied.