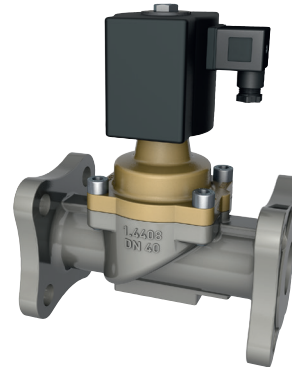


## 86520 2/2-way piston valves

- Port size:  
Flange PN 40  
DN 15 ... 50
- For steam and hot water
- Valve operates without differential pressure
- Valve piston with PTFE guide-ring
- Damped operation
- International approvals



Approval depends on magnetic system, see pages 2!



### Technical features

**Medium:**  
Neutral steam and liquid fluids

**Switching function:**  
Normally closed

**Mounting position:**  
Solenoid vertical on top;  
optional up to G1 / 1 NPT;  
solenoid underneath

**Flow direction:**  
Determined

**Port size:**  
DN 15, DN 20, DN 25, DN 32,  
DN 40, DN 50

**Operating pressure:**  
0 ... 16 bar (0 ... 232 psi)  
0 ... 25 bar (0 ... 362 psi)

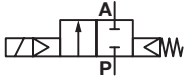
**Fluid temperature:**  
0 ... +200°C (+32 ... +392°F)

**Ambient temperature:**  
0 ... +60°C (+32 ... +140°F)

**Material:**  
Body: Stainless steel (1.4408),  
Brass  
Seat seal: PTFE  
Internal parts: Stainless steel,  
PTFE-Carbon / FPM

For contaminated fluids insertion of a strainer is recommended.

### Technical data – standard models

| Symbol  | Orifice (mm) | Flow kv value *1) (m <sup>3</sup> /h) | Operating pressure *2) *3) |           | Weight (kg) | Model              |                    |
|---|--------------|---------------------------------------|----------------------------|-----------|-------------|--------------------|--------------------|
|   |              |                                       | (bar)                      | (psi)     |             | Solenoid in V d.c. | Solenoid in V a.c. |
|  | 15           | 4,4                                   | 0 ... 16                   | 0 ... 232 | 3,8         | 8652200.8402.xxxxx | 8652200.8406.xxxxx |
|   | 20           | 6,5                                   | 0 ... 16                   | 0 ... 232 | 4,2         | 8652300.8402.xxxxx | 8652300.8406.xxxxx |
|   | 25           | 10                                    | 0 ... 16                   | 0 ... 232 | 4,8         | 8652400.8402.xxxxx | 8652400.8406.xxxxx |
|   | 32           | 22                                    | 0 ... 16                   | 0 ... 232 | 9,6         | 8652500.8402.xxxxx | 8652500.8406.xxxxx |
|   | 40           | 23                                    | 0 ... 16                   | 0 ... 232 | 10          | 8652600.8402.xxxxx | 8652600.8406.xxxxx |
|   | 50           | 37                                    | 0 ... 16                   | 0 ... 232 | 11,5        | 8652700.8402.xxxxx | 8652700.8406.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 40 mm<sup>2</sup>/s (cSt)

\*3) Lekrate E acc. to DIN EN 12266-1

### Option selector

8652\*\*\*\*.\*\*\*\*.\*\*\*\*

| Port size  | Substitute |
|--|------------|
| 15   | 2          |
| 20   | 3          |
| 25   | 4          |
| 32   | 5          |
| 40   | 6          |
| 50   | 7          |
| Valve options  | Substitute |
| Normally open (NO)   | 01         |
| Manual override  | 02         |
| Seat seal EPDM, for hot water, Fluid temperature 0 ... +130°C (+32 ... +266°F) | 14         |
| Max. operating pressure 25 bar (362 psi)                                       | 22         |
| Electrical position indicator with two limit switches (Reed contact)           | 23         |
| Flanges acc.to ASME B 16.5 150 lb/sq. In.                                      | 47         |

| Frequency                 | Substitute |
|---------------------------|------------|
| See table frequency codes | xx         |
| Voltage                   | Substitute |
| See table voltage codes   | xxx        |
| Solenoid options          | Substitute |
| Solenoid in V d.c.        | 8402       |
| Solenoid in V a.c.        | 8406       |

### Standard solenoid systems

| Voltage and Frequency Solenoid 8402/8406 |           |                |              |                   |         |
|--|-----------|----------------|--------------|-------------------|---------|
| Code                                     | Code      | Voltage        | Frequency    | Power consumption |         |
| Voltage                                  | Frequency |                |              | Inrush            | Holding |
| 024                                      | 00        | 24 V d.c.      | -            | 29 W              | 29 W    |
| 024                                      | 49        | 24 V a.c. *4)  | 40 ... 60 Hz | 33 VA             | 33 VA   |
| 110                                      | 49        | 110 V a.c. *4) | 40 ... 60 Hz | 33 VA             | 33 VA   |
| 120                                      | 49        | 120 V a.c. *4) | 40 ... 60 Hz | 33 VA             | 33 VA   |
| 230                                      | 49        | 230 V a.c. *4) | 40 ... 60 Hz | 33 VA             | 33 VA   |

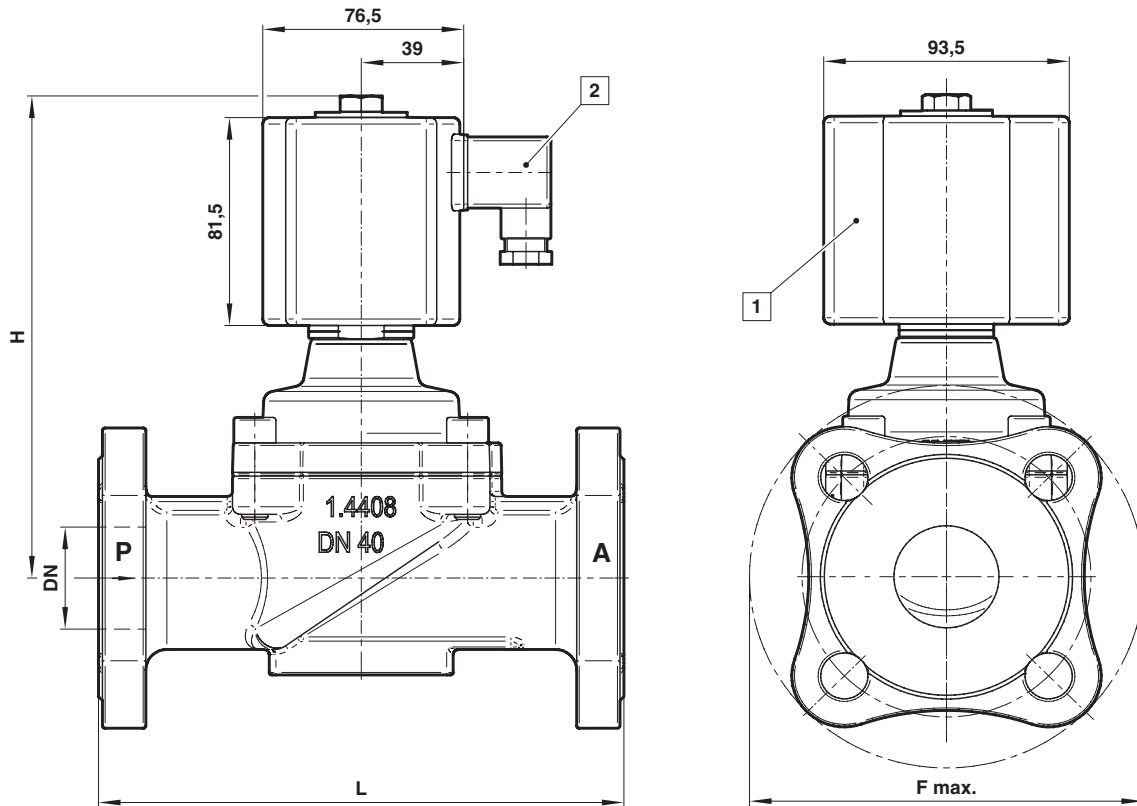
\*4) a.c. only with rectifier plug

Further versions on request!

### Electrical details for all solenoid systems

|                  |   |
|------------------|---|
| Design           | DIN VDE 0580                                |
| Voltage range    | ±10%  |
| Duty cycle       | 10% ED                                      |
| Protection class | EN 60529 IP65                               |
| Socket           | Form A acc. to DIN EN 175301-803 (included) |

According to DIN VDE 0580 at a coil temperature of +20°C (+68°F).  
At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.



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

| Orifice DN (mm) | ø B | ø F | H   | L   | Model              |
|-----------------|-----|-----|-----|-----|--------------------|
| 15              | 44  | 96  | 155 | 130 | 8652200.840x.xxxxx |
| 20              | 50  | 110 | 163 | 150 | 8652300.840x.xxxxx |
| 25              | 62  | 115 | 168 | 160 | 8652400.840x.xxxxx |
| 32              | 92  | 140 | 184 | 180 | 8652500.840x.xxxxx |
| 40              | 92  | 150 | 189 | 200 | 8652600.840x.xxxxx |
| 50              | 109 | 165 | 197 | 230 | 8652700.840x.xxxxx |

Suitable for assembly between flanges acc. to DIN EN 1092-1; Contact face acc. to DIN EN 1092-1/B

**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.