Proportional directional valve  W42E-1AS06 and W43E-1AS06

direct operated, solenoid operated
operating pressure max. 350 bar
volume flow max. 25 l/min
size NG 6, DIN 24340 A06

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Characteristics

- proportional directional spool valve
- spring centred spool
- controls volume and direction of flow rate
- maintenance-free
- rotatable and replaceable coils
- available with various volume flows
## Technical data

### Hydraulic

**Operating pressure:**
- Port P, A, B: 350 bar (if T = 0 bar)
- Port T: 210 bar (if P and A or P and B max. 315 bar)

**Flow rate:**
- 8, 16, 24 l/min at Δp = 10 bar

**Flow direction:** see symbols in type code

**Hydraulic fluid:**
- Mineral oil according to DIN 51524,
- Other hydraulic fluids upon request

**Viscosity range:**
- 10 - 350 cSt

**Filtration:**
- Oil cleanliness according to ISO 4406 (1999)
  - 18/16/13, filter with β S(c) > 200

**Repeatability:**
- < 3 % with optimized PWM-signal*

**Hysteresis:**
- < 5 % with optimized PWM-signal*

* at 20 % to 100 % of the nominal valve current

### Mechanic

**Design:** spool type, direct operated

**Size:** NG 6 (DIN 24340 A06, ISO 4401-03, CETOP 3)

**Fluid temperature:**
- -20 °C to +65 °C

**Ambient temperature:**
- -20 °C to +50 °C

**Storage temperature:**
- -30 °C to +60 °C (non-condensing)

**Installation position:** any

**Maximum acceleration:** 5 g

**Weight:**
- 4/2-way-design: 1.6 kg
- 4/3-way-design: 2.1 kg

**Material:**
- Valve parts: steel
- Seals: NBR, Viton optional

**Surface protection:**
- Coil: zinc-nickel
- Body: comparable

### Electric

**Nominal voltage:** 12 V DC, 24 V DC

**Nominal valve current:**
- 1.8 A (12 V), 0.9 A (24 V)

**Nominal resistance (R20):**
- 2.7 Ω (12 V), 12.6 Ω (24 V)

**Power consumption:** 21.6 W (at nominal valve current)

**Shifting time:** 100 % ED

**Control command:** PWM-signal

**PWM-frequency:** typically 85 Hz (depending on application)

**Protection class:** IP65 with correctly mounted and locked mating connector

**Electric termination:**
- Electric plug according to DIN EN 175301-803 (formerly DIN 43650) shape A, AMP Junior Timer

**Electronic controllers:**
- See chapter 6 "electronics and sensors" as well as our online catalogue at www.weber-hydraulik.com.
**Performance**

**Flow rate diagram (Q/I) W4_E-1AS06 at Δp = 10 bar**

**Pressure drop diagram (Δp/Q) W4_E-1AS06 at Iₙ**

**NOTE**

Maximum tolerance of flow rate ±10% at symmetric flow. Maximum pressure drop at control edge Δp: 20 bar.

**Test conditions**

Oil: HLP 32, temperature: 40 °C (~32 cSt)
Higher viscosity changes the performance diagrams.
**Dimensions**

The valve must be mounted with fitting screws according to DIN EN ISO 4762 M5 - 12.9. Installation torque: 5,7 ± 0,3 Nm.

The minimum screw-in depth depends on the material of the screw and the material in which it is screwed in.

- Steel typically: $1.2 \times d$ 12.9 (10.9)
- Aluminium typically: $1.6 \times d$ 8.8 (10.9)

If in doubt, please use the appropriate table books or carry out tests.

The mounting surface of the valve must have a flatness better than 0,01 mm.

**NOTE** For a detailed drawing of the port pattern please see chapter 11 „general information“ or our online catalogue at www.weber-hydraulik.com.

**NOTE** For appropriate manifolds see chapter 10 „connecting plates and manifolds“ as well as our online catalogue at www.weber-hydraulik.com.
**Type code**

- **Model**
  - W42E: 4/2-way-design
  - W43E: 4/3-way-design

- **Series**: AS06

- **Revision**: 01

- **Electric termination**
  - DIN: D
  - Deutsch (on request): C
  - AMP Junior Timer: J

- **Nominal voltage**
  - 12 V DC
  - 24 V DC

- **Manual override**
  - without manual override (push pin): H401

- **Mounting interface**
  - Mounting plate ISO 4401 (steel), size 06 AS06

- **Nominal flow**
  - 08 l/min: 08
  - 16 l/min: 16
  - 24 l/min: 24

- **Spool type**

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<thead>
<tr>
<th>Spool type</th>
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<tr>
<td>D</td>
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- **Seals**
  - NBR
  - Viton: V
## Accessories and additional information

### Accessories/spare parts

<table>
<thead>
<tr>
<th>Article:</th>
<th>Material number:</th>
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<tbody>
<tr>
<td>Socket connector DIN EN 175301-803*, shape A, black</td>
<td>149.0007</td>
</tr>
<tr>
<td>Screw M5 x 30 DIN EN ISO 4762, 12.9</td>
<td>1093159</td>
</tr>
<tr>
<td>Seal kit W4_E-1AS06 (NBR)</td>
<td>405.0070</td>
</tr>
<tr>
<td>Seal kit W4_E-1AS06 (Viton)</td>
<td>405.0071</td>
</tr>
<tr>
<td>Coil 12 V DIN EN 175301-803*, shape A</td>
<td>147.0011</td>
</tr>
<tr>
<td>Coil 24 V DIN EN 175301-803*, shape A</td>
<td>147.0009</td>
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<tr>
<td>Coil 12 V, AMP Junior Timer</td>
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<tr>
<td>Coil 24 V, AMP Junior Timer</td>
<td>147.0010</td>
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* (formerly DIN 43650)

### NOTE

For the appropriate electronic controllers, see chapter 6 „electronics and sensors“ as well as our online catalogue at [www.weber-hydraulik.com](http://www.weber-hydraulik.com).

### Manual

Information regarding installation, set-up and maintenance can be found in our product catalogue in chapter 11 „general information“ under the category „general operating manual“ or will be provided upon request.