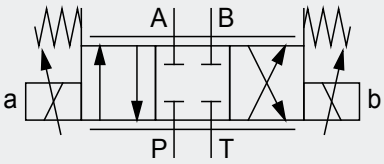
Proportional Directional Valve W42E-1AS06 and W43E-1AS06

Directly operated, electrically actuated
Max. operating pressure 350 bar
Rated flow rate up to 25 l/min
Connection NG 6, DIN 24340 A06



010130_W42_E-1AS06
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Characteristics

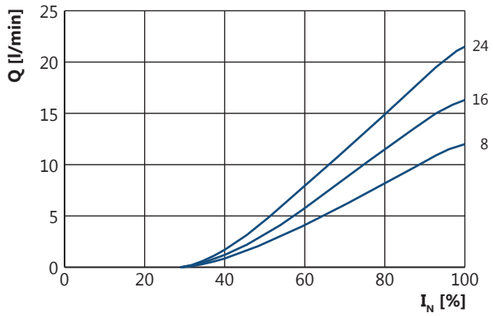
- Proportional directional valve in spool design
- Control the direction and quantity of a volume flow
- Spring centered spool
- Maintenance-free
- Rotatable and replaceable solenoid coil
- Various rated flow rate ranges

Technical data

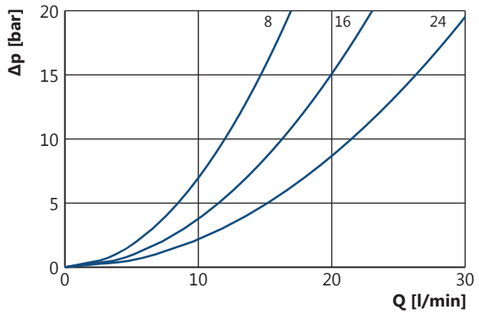
Hydraulic characteristics	Max operating pressure:	Port P, A, B: 350 bar (at T= 0 bar) Connection T: 210 bar (for P and A or P and B, maximum 315 bar)
	Rated flow rate:	8, 16, 24 l/min at Δp = 10 bar
	Flow direction:	See the symbols in the type code
	Operating fluids:	Mineral oils according to DIN 51524, others on request
	Viscosity range:	10 - 350 cSt
	Filtration:	Oil purity according to ISO 4406 (1999) 18/16/13, filter with ß 5(c) > 200
	Repeatability:	< 3 % with optimized PMW-signal*
	Hysteresis:	< 5 % with optimized PMW-signal*
	* at 20 % to 100 % of the rated solenoid current	
Mechanical characteristics	Design:	Plate-mounted valve, directly 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
	Permissible acceleration:	5 g
	Weight:	4/2-way-design: 1.6 kg 4/3-way-design: 2.1 kg
	Materials:	Valve parts: Steel Seals: NBR, optional Viton
	Surface protection:	Magnet: Zinc-nickel Casing: comparable
Electrical characteristics	Rated voltage:	12 V DC, 24 V DC
	Rated solenoid current:	1.8 A (12 V), 0.9 A (24 V)
	Rated resistance (R20):	2.7 Ω (12 V), 12.6 Ω (24 V)
	Max. power consumption:	21,6 W (at rated solenoid current)
	Power-on time:	100 % PO
	Control command:	PWM signal
	PWM frequency:	Typically 85 Hz (depending on the application)
	Protection class:	IP65 with a correctly installed wiring box
	Electrical connection:	Device plug in accordance with DIN EN 175301-803 (formerly DIN 43650) shape A, AMP Junior Timer
	Control units:	See section 6, *"Electronics and Sensors"* and our online catalog at *www.weber-hydraulik.com*

Characteristic curves

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



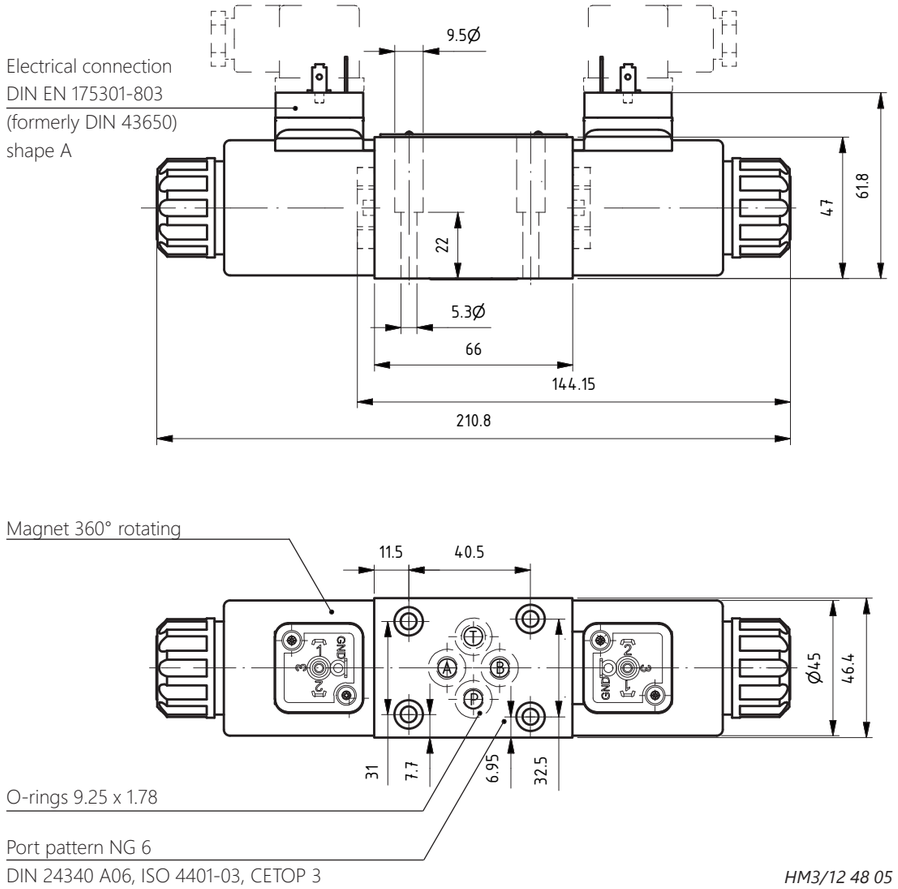
Pressure drop diagram (Δp/Q) W4_E-1AS06 at I_N



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

Measurement conditions Oil: HLP 32, temperature: 40 °C (~32 cSt).
Higher viscosities change the characteristic curves.

Dimensions



HM3/12 48 05

NOTE The valve must be mounted with suitable M5 - 12.9 cylinder head screws according to DIN EN ISO 4762. Tightening torque: 5.7 ± 0.3 Nm.
The minimum screw-in depth depends on the screw material and the material into which it is screwed.
Steel, typical: 1.2 x d 12.9 (10.9)
Aluminum, typical: 1.6 x 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 Dimensions for the port patterns are available in section 11 *"General information"* under the *"Port Patterns"* heading and in our online catalog at *www.weber-hydraulik.com*.

NOTE Suitable casings and connection plates are available in section 10, *"Connecting Plates and Manifolds"* and in our online catalog at *www.weber-hydraulik.com.*

Type code

[ ] - [1] [AS06] - [ ] [ ] - [01] - [ ] [ ] [ ] [ ]

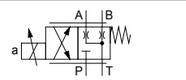
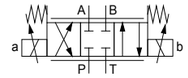
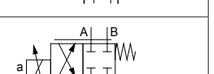
Series

Revision

Model	
W42E	4/2-way valve
W43E	4/3-way valve

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	
D	
DA	
DB	
N	
NA	
NB	

Electrical connection	
DIN	**D**
Deutsch (on request)	**C**
AMP Junior Timer	**J**

Rated voltage	
12 V DC	**12**
24 V DC	**24**

Manual override	
Without manual override	
Manual override (pin)	**H401**

Seal	
NBR	
Viton	**V**

Accessories and further information

Accessories/spare parts

Article:	Material number:
Socket DIN EN 175301-803 (formerly DIN 43650), shape A, black	149.0007
Cylinder head screw M5 x 30, DIN EN ISO 4762, 12.9	1093159
Seal kit W4_E-1AS06 (NBR)	405.0070
Seal kit W4_E-1AS06 (Viton)	405.0071
Coil 12 V, DIN EN 175301-803 (formerly DIN 43650), shape A	147.0011
Coil 24 V, DIN EN 175301-803 (formerly DIN 43650), shape A	147.0009
Coil 12 V, AMP Junior Timer	147.0007
Coil 24 V, AMP Junior Timer	147.0010

NOTE For appropriate electronic controllers, see our website at ***www.weber-hydraulik.com***.

Operating manual Information regarding assembly, commissioning and maintenance is available in *"General information"* in the *"General Operating Manual"* category on our website or on request.

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