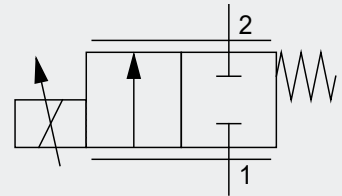


## Proportional throttle valve PVDES2-14



Directly operated, electrically actuated  
Max. operating pressure 350 bar  
Rated flow rate up to 80 l/min,  
cavity T-5A



040120\_PVDES2-14  
12.2025

### Table of contents

| Contents                            | Page |
|-------------------------------------|------|
| Characteristics                     | 1    |
| Technical data                      | 2    |
| Characteristic curves               | 3    |
| Dimensions                          | 3    |
| Type code                           | 5    |
| Accessories and further information | 6    |

### Characteristics

- Proportional 2/2-way throttle valve in spool design
- Normally open or normally closed models
- Screw-in valve for cavity T-5A
- Maintenance-free
- Rotatable and replaceable solenoid coil

Technical data

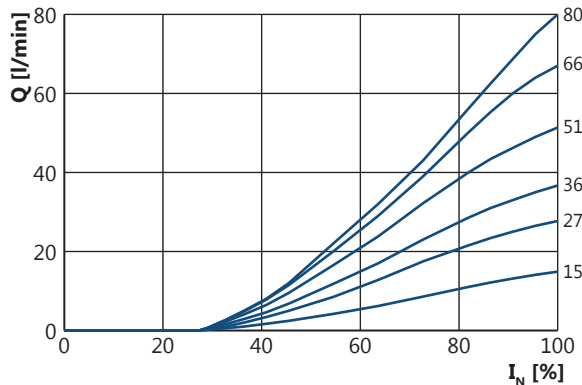
|                           |                                                  |                                                                               |
|---------------------------|--------------------------------------------------|-------------------------------------------------------------------------------|
| Hydraulic characteristics | Max operating pressure:                          | 350 bar, differential pressure control Δp max. 25 bar                         |
|                           | Rated flow rate:                                 | see type code at differential pressure control Δp = 10 bar                    |
|                           | Performance limit:                               | Max. nominal flow rate also at a higher differential pressure control Δp      |
|                           | Flow direction:                                  | 1 to 2 (2 to 1 not permitted)                                                 |
|                           | Operating fluids:                                | Mineral oils according to DIN 51524, others on request                        |
|                           | Viscosity range:                                 | 10 - 350 cSt                                                                  |
|                           | Filtration:                                      | Oil purity according to ISO 4406 (1999)<br>18/16/13, filter with β 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:                   | PVDES screw-in valve or PVDR piping installation, directly operated |
|                            | Size:                     | 14                                                                  |
|                            | 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:                   | PVDES: 0.7 kg, PVDR: 2.1 kg                                         |
|                            | Materials:                | Valve parts and casing: Steel<br>Seals: NBR, optional Viton         |
|                            | Surface protection:       | Exterior parts: Galvanized steel                                    |

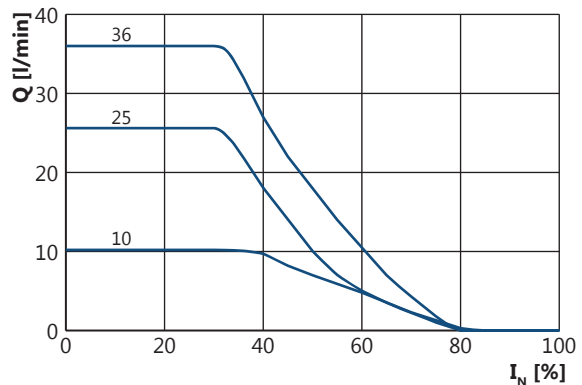
|                            |                         |                                                                                                                    |
|----------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------|
| Electrical characteristics | Rated voltage:          | 12 V DC, 24 V DC                                                                                                   |
|                            | Rated solenoid current: | 12 V: DIN and AMP 2.3 A, Deutsch 2.0 A<br>24 V: DIN and AMP 1.1 A                                                  |
|                            | Rated resistance (R20): | 12 V: DIN and AMP 2.7 Ω, Deutsch 3.85 Ω<br>24 V: DIN and AMP 12.6 Ω                                                |
|                            | Power consumption:      | 23.0 W at rated solenoid current                                                                                   |
|                            | Power-on time:          | 100 % PO                                                                                                           |
|                            | Control command:        | PWM signal                                                                                                         |
|                            | PWM frequency:          | Typically 140 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, Deutsch connector |
|                            | Control units:          | See section 6, "Electronics and Sensors" at <a href="http://www.weber-hydraulik.com">www.weber-hydraulik.com</a> . |

Characteristic curves

Flow rate diagram (Q/I) PVDES2-14 at Δp = 10 bar, normally closed



Flow rate diagram (Q/I) PVDES2-14 at Δp = 10 bar, normally open



Measurement conditions

Oil: HLP 32, temperature: 40 °C (~32 cSt).

Dimensions

Screw-in valve PVDES2-14

Tightening torque: 4 Nm

Magnet 360° rotating

Tightening torque: max. 0.5 Nm

Electrical connection  
DIN EN 175301-803  
(formerly DIN 43650) shape A

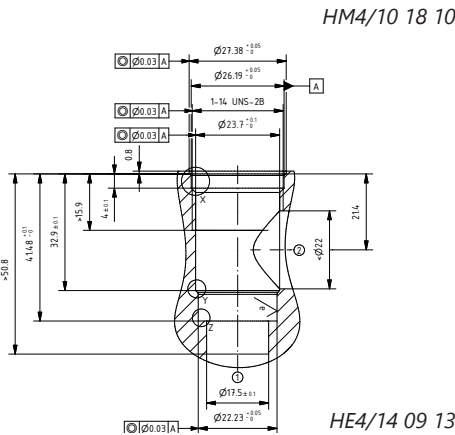
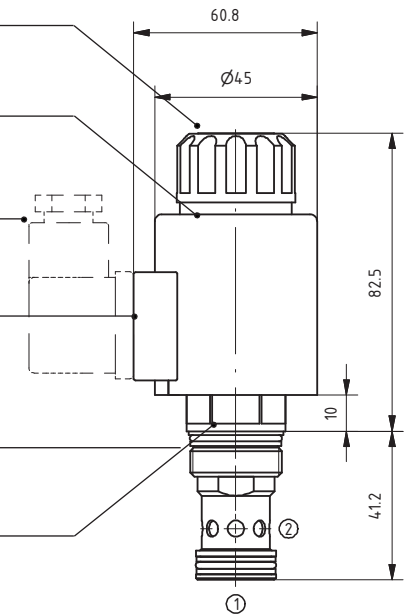
Stop shoulder T-5A

Tightening torque: 60 to 65 Nm  
Size 24

Cavity T-5A

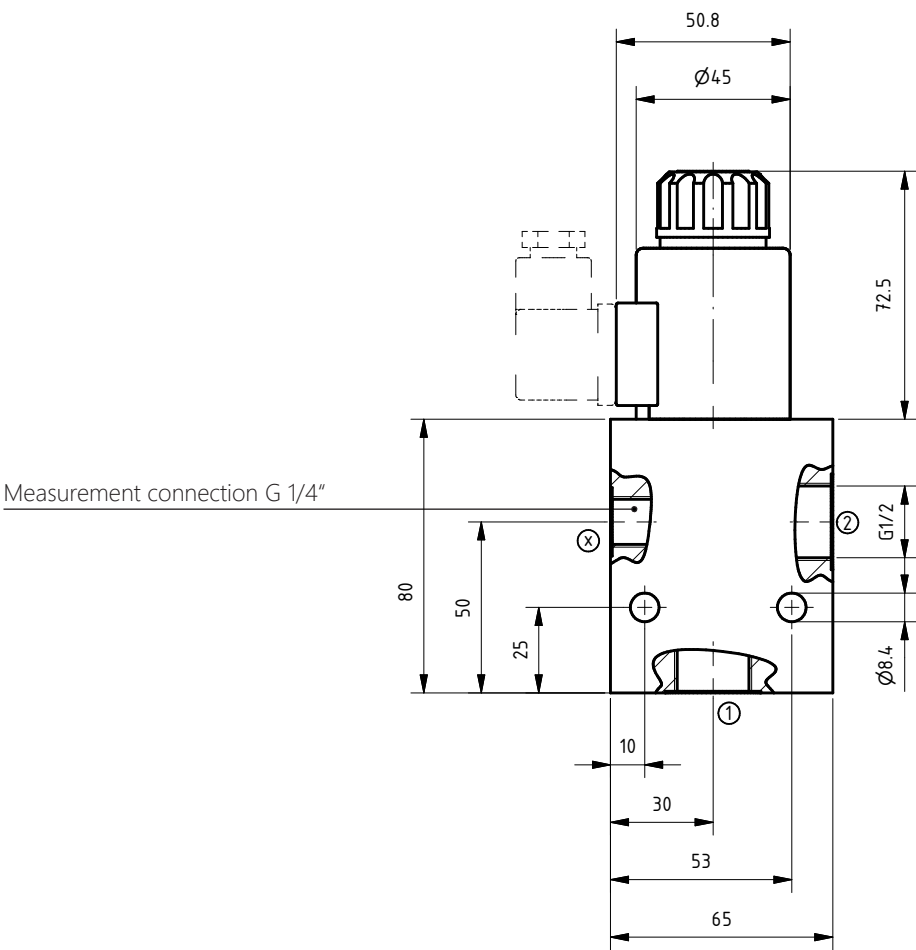
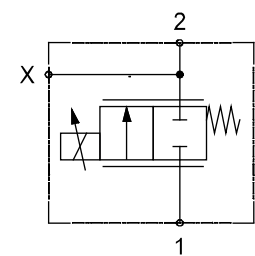
NOTE

A detailed drawing of the cavity is provided in section 11, "General information" and in our online catalog at [www.weber-hydraulik.com](http://www.weber-hydraulik.com).



Dimensions

Screw-in valve in  
G1/2" piping casing  
PVDR2-14

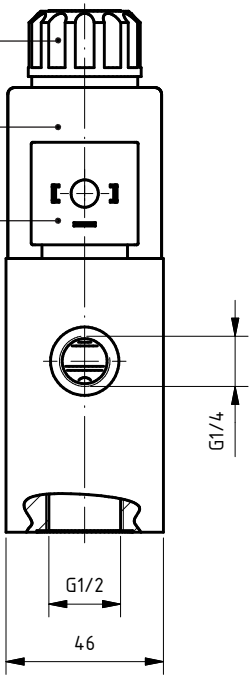


Measurement connection G 1/4"

Tightening torque: 4 Nm

Magnet 360° rotating

Electrical connection  
DIN EN 175301-803  
(formerly DIN 43650) shape A



HM4/14 11 28

Type code

14

/

x

-

-

11

-

-

H402

-

-

Size

Revision

Seal

NBR

Viton

V

Model

PVDES2

Throttle valve

Spool type

SG

Normally closed

SO

Normally open

Rated flow rate

at differential pressure

control Δp = 10 bar

|          |         |         |
|----------|---------|---------|
| 15 l/min | Only SG | 2 x 1.3 |
| 27 l/min |         | 4 x 1.5 |
| 36 l/min |         | 5 x 1.5 |
| 51 l/min |         | 7 x 1.5 |
| 66 l/min |         | 9 x 1.6 |
| 80 l/min |         | 8 x 3.0 |
| 10 l/min | Only SO | 2 x 1.8 |
| 25 l/min |         | 5 x 1.8 |
| 36 l/min |         | 7 x 1.8 |

Rated voltage

|         |                   |
|---------|-------------------|
| 12 V DC | 12V only with APM |
| 24 V DC | 24V               |

Electrical connection

|                               |     |
|-------------------------------|-----|
| DIN                           |     |
| AMP Junior Timer              | AMP |
| Deutsch (only 12 V available) | DEU |

Manual override

|      |                                       |
|------|---------------------------------------|
| H402 | Manual override with pin              |
| H301 | Lockable override with hexagon socket |
| H302 | Lockable override with hand wheel     |

Standard program

## Accessories and further information

| <i>Accessories/spare parts</i> | <b>Article:</b>                                               | <b>Article number:</b> |
|--------------------------------|---------------------------------------------------------------|------------------------|
|                                | Socket DIN EN 175301-803 (formerly DIN 43650), shape A, black | 149.0007               |
|                                | Socket DIN EN 175301-803 (formerly DIN 43650), shape A, gray  | 149.0008               |
|                                | Seal kit T-5A (NBR)                                           | 405.0040               |
|                                | Seal kit T-5A (Viton)                                         | 405.0041               |
|                                | 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               |
|                                | Coil 12 V, Deutsch connector                                  | 147.0012               |

**NOTE** For appropriate electronic controllers, see section 6, "*Electronics and Sensors*" and our online catalog at [www.weber-hydraulik.com](http://www.weber-hydraulik.com).

**Operating manual** Information regarding assembly, commissioning and maintenance is available in section 11, "*General information*" in the "*General Operating Manual*" category or on request.