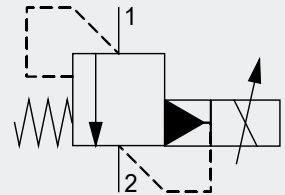


Proportional Pressure Relief Valve EPDBS 10



Pilot operated, electrically actuated
Max. operating pressure 315 bar
Rated flow rate up to 150 l/min
Cavity T-3A



020220_EPDBS_10
12.2025

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Characteristics

- Proportional pressure relief valve in spool design
- Screw-in valve for cavity T-3A
- Low vibration
- Maintenance-free
- Degressive versions available

Technical data

Hydraulic characteristics

Max operating pressure:	315 bar (with free return flow in port 2) Max. tank pressure: 35 bar
Rated flow rate:	150 l/min
Pressure setting range:	See type code
Flow direction:	1 (P) to 2 (T) (2 to 1 or T to P 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) 18/16/13, filter with $\beta_{5(c)} > 200$
Repeatability:	< 3 % with optimized PMW-signal*
Hysteresis:	< 5 % with optimized PMW-signal*
* at 20 % to 100 % of the rated solenoid current	

NOTE

The pressure at connection 2 (T) is added directly to the set value. The total pressure of connection 1 (P) and 2 (T) must not exceed the permissible maximum operating pressure.

Mechanical characteristics

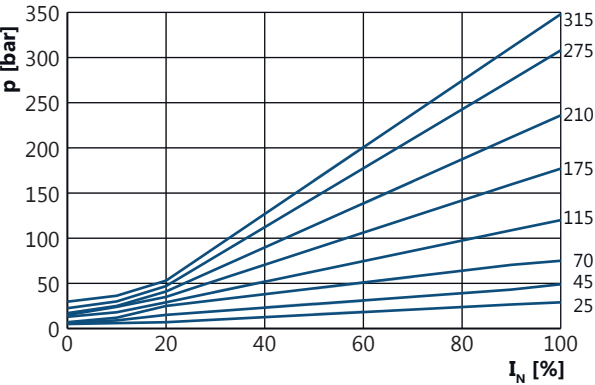
Design:	EEPDBS screw-in valve T-3A, EPDBSA screw-in valve in mounting plate NG 10, pilot operated
Size:	10
Fluid temperature:	-25 °C to +70 °C
Ambient temperature:	-25 °C to +50 °C
Storage temperature:	-30 °C to +60 °C (non-condensing)
Installation position:	Any
Weight:	EEPDBS 10: 0.84 kg, EPDSA 10: 1.78 kg
Materials:	Valve parts: Steel Seals: NBR, optional Viton
Surface protection:	Exterior parts: Galvanized steel, partially burnished

Electrical characteristics

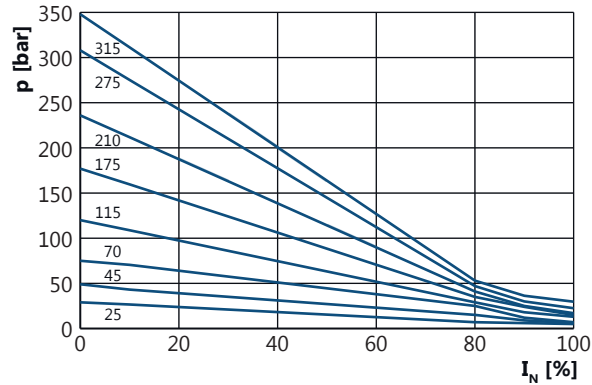
Rated voltage:	12 V DC, 24 V DC
Rated solenoid current:	1.7 A (12 V), 0.7 A (24 V)
Rated resistance (R20):	4 Ω (12 V), 25 Ω (24 V)
Power consumption:	16 W at rated solenoid current
Power-on time:	100 % PO
Control command:	PWM signal
PWM frequency:	typically 140 Hz (depending on the application)
Protection 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, unterminated wire
Control units:	See section 6, "Electronics and Sensors" and our online catalog at www.weber-hydraulik.com .

Characteristic curves

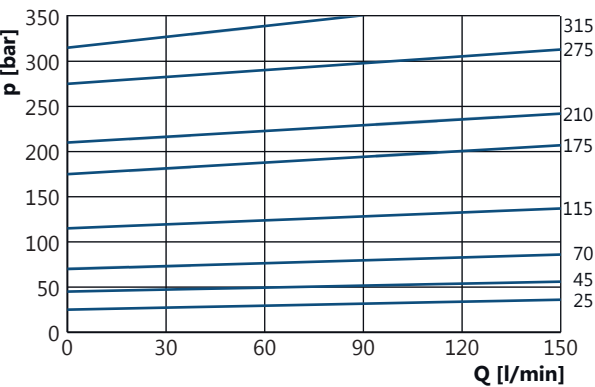
Pressure characteristic curve (p/I) EPDBS 10 at Q = 35 l/min



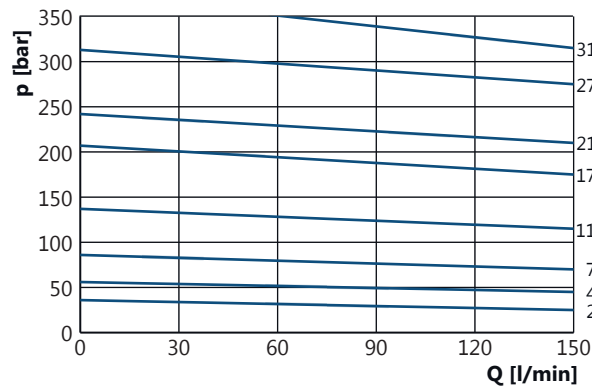
Pressure characteristic curve (p/I) EPDBS 10 depressive version at Q = 35 l/min



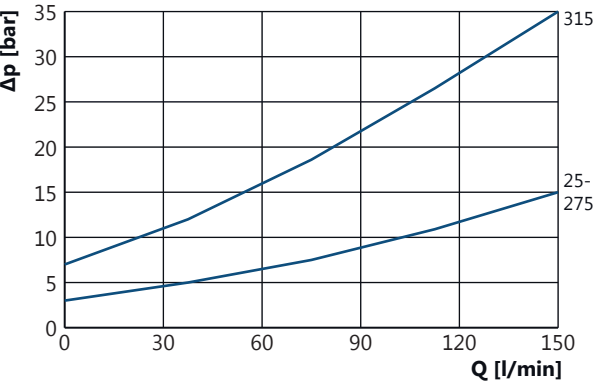
Pressure characteristic curve (p/Q) EPDBS 10 at I_N



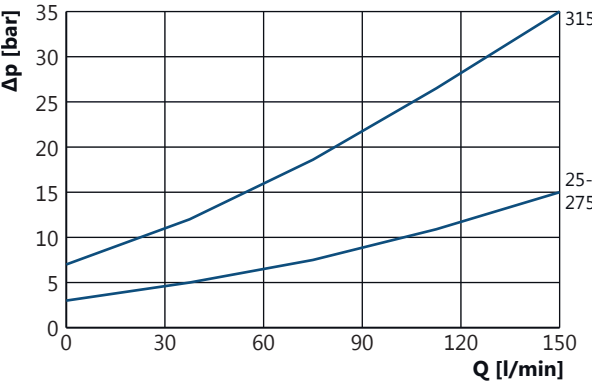
Pressure characteristic curve (p/Q) EPDBS 10 depressive version at I_N



Pressure loss characteristic curve ($\Delta p/Q$) EPDBS 10 at I = 0 mA (deenergized)



Pressure loss characteristic curve ($\Delta p/Q$) EPDBS 10 depressive version at I = 100 % (full current)

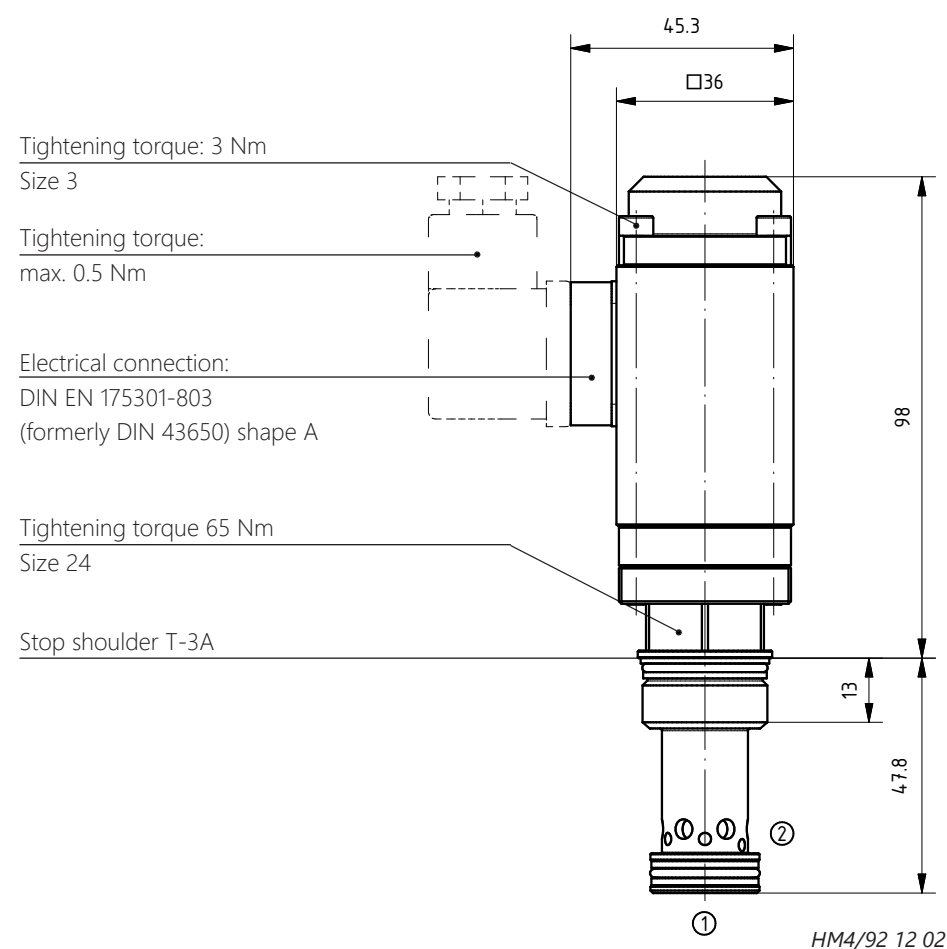


Measurement conditions

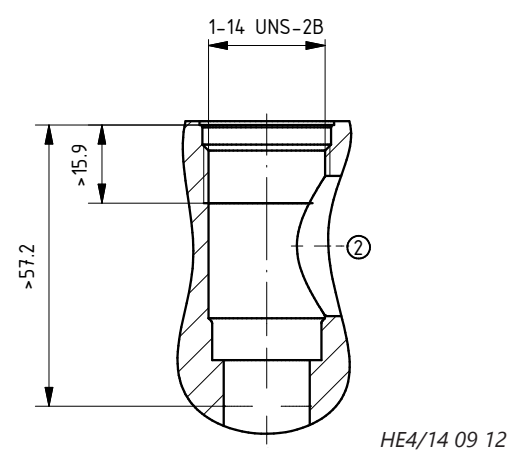
Oil: HLP 32, temperature: 40 °C (~32 cSt).
Higher viscosities change the characteristic curves.

Dimensions

*Screw-in valve
EEPDBS 10*



*Cavity
T-3A*



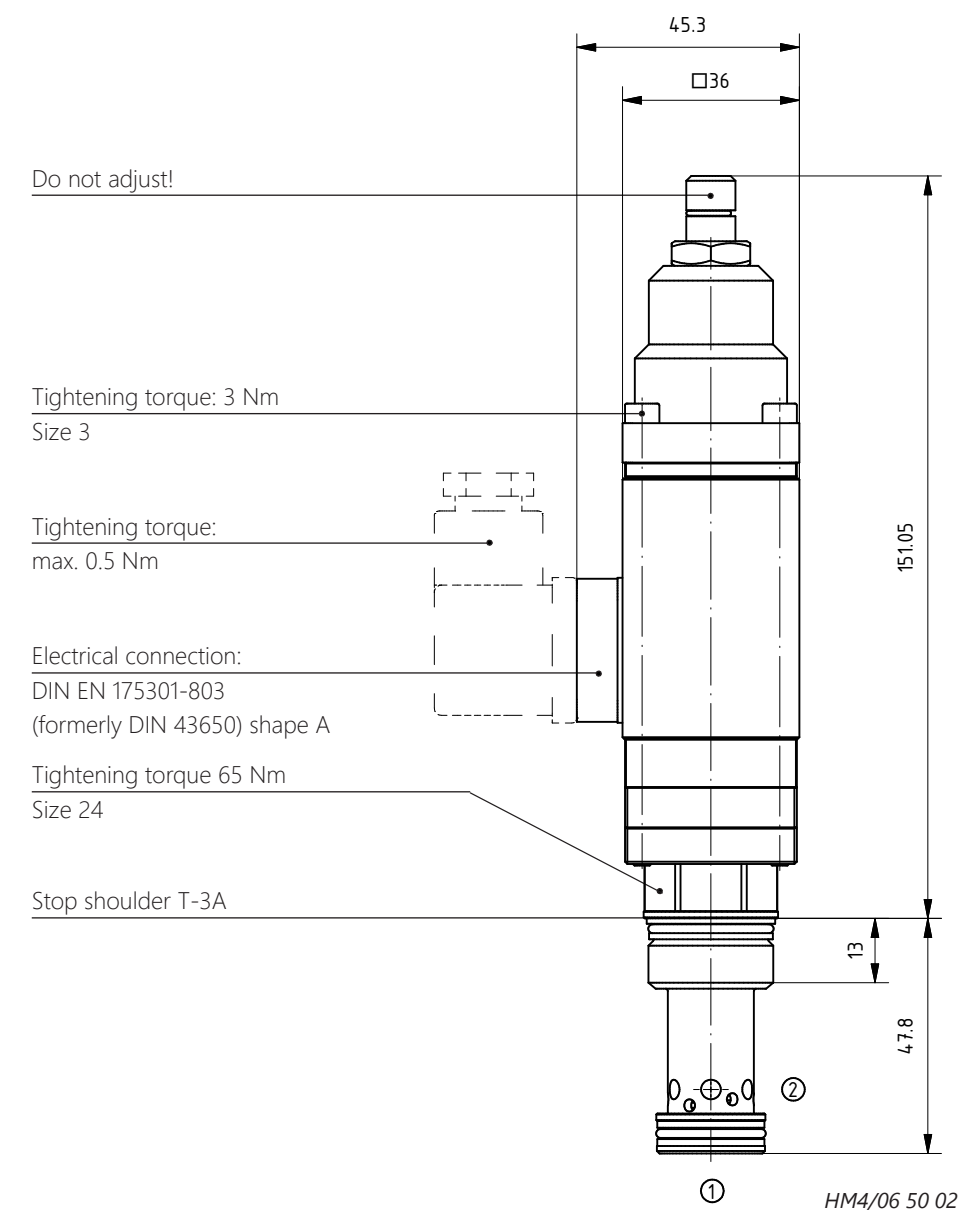
NOTE A detailed drawing of the cavity is provided at "General information" on our website at www.weber-hydraulik.com.

NOTE Suitable casings and connection plates are available at "Connecting Plates and Manifolds" on our website www.weber-hydraulik.com.

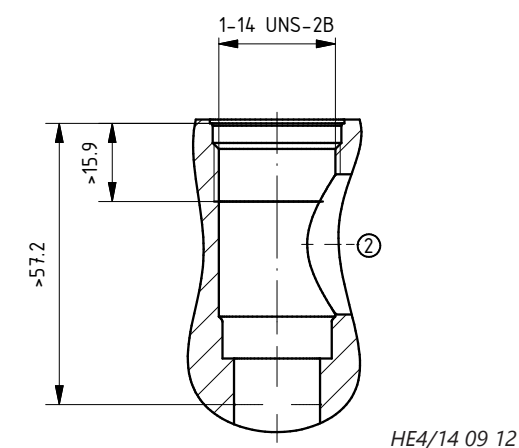
NOTE The valve is also available as EPDBSA 10 in an NG 10 mounting plate. Dimension sheets are available upon request.

Dimensions

*Screw-in valve
EEPDBS 10,
degressive*



*Cavity
T-3A*



NOTE A detailed drawing of the cavity is provided at "General information" on our website at www.weber-hydraulik.com.

NOTE Suitable casings and connection plates are available at "Connecting Plates and Manifolds" on our website www.weber-hydraulik.com.

Type code

	10	-		-	X	-		-		-		-		-	
	Size			Revision											
Design		Pressure setting range		Rated voltage		Special versions		Seal							
EEPDBS	Screw-in valve T-3A	25	25 bar	12V	12V DC		Without	NBR							
EPDBSA	Screw-in valve in mounting plate NG 10*	45	45 bar	24V	24V DC	DEG	Degressive**	Viton	V						
		70	70 bar	Manual override**		Electrical connection									
		115	115 bar	Without		DIN									
		175	175 bar	Lockable manual override with hexagon socket and lock nut		AMP Junior Timer (only 24 V version)		AMP							
		210	210 bar			FHN (see note)									
		275	275 bar	Manual override with push knob		DNH									
		315	315 bar												