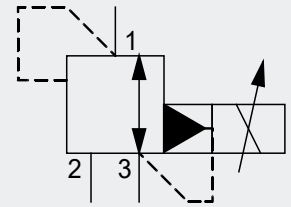


Proportional pressure control valve EPDRS3-10



pilot operated, solenoid operated
 operating pressure max. 315 bar
 volume flow max. 80 l/min
 cavity T-2A



030230_EPDRS3_10_e
 07.2018

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Characteristics

- 3-way proportional pressure control valve in spool design
- screw-in valve for cavity T-2A
- low vibration
- maintenance-free
- degressive version available
- also usable as 2-way proportional pressure reducing valve (after consultation with WEBER-HYDRAULIK ValveTech)

Technical data

<i>Hydraulic</i>	Operating pressure max.:	315 bar, with aluminium manifolds: 210 bar
	Flow rate:	80 l/min
	Pressure setting range:	see type code
	Flow direction:	see hydraulic symbol
	Hydraulic fluid:	mineral oil according to DIN 51524, others upon request
	Viscosity range:	10 - 350 cSt
	Filtration:	oil cleanliness according to ISO 4406 (1999) 18/16/13, filter with β 5(c) > 200
	Repeatability:	< 3 % with optimized PWM-signal*
	Hysteresis:	< 5 % with optimized PWM-signal*
		* at 20 % to 100 % of the nominal valve current

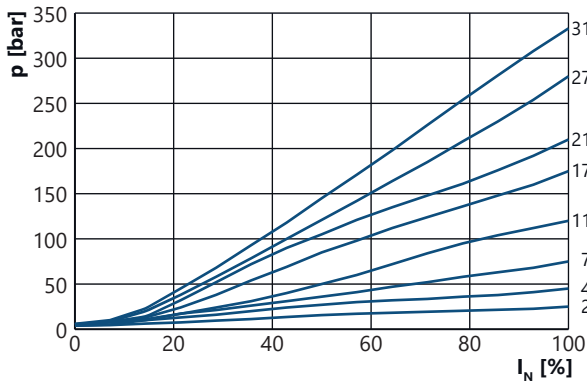
NOTE The pressure on port 3 (T) adds directly to the set pressure. The total pressure of ports A and T must not exceed the maximum operating pressure.

<i>Mechanic</i>	Design:	EEPDRS screw-in valve T-2A, EPDRSA 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, preferably horizontal
	Maximum acceleration:	5 g, crossways
	Weight:	EEPDRS3-10: 0,86 kg, EPDRSA3-10: 1,69 kg
	Material:	valve parts: steel, mounting plate: aluminium seals: NBR, Viton optional
	Surface protection:	exterior parts: zinc coated steel, mounting plate: anodized aluminium

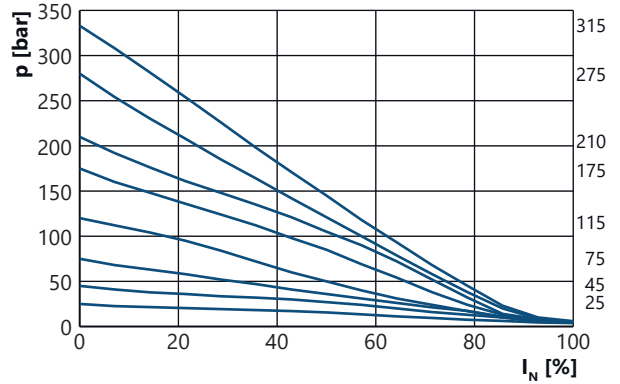
<i>Electric</i>	Nominal voltage:	12 V DC, 24 V DC
	Nominal valve current:	1,7 A (12 V), 0,7 A (24 V)
	Nominal resistance (R20):	4 Ω (12 V), 25 Ω (24 V)
	Power consumption:	16 W at nominal valve current
	Shifting time:	100 % ED
	Control command:	PWM-signal
	PWM-frequency:	typically 140 Hz (depending on 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, unterminated wire
	Electronic controllers:	see chapter 6 " <i>electronics and sensors</i> " as well as our online catalogue at www.weber-hydraulik.com

Performance

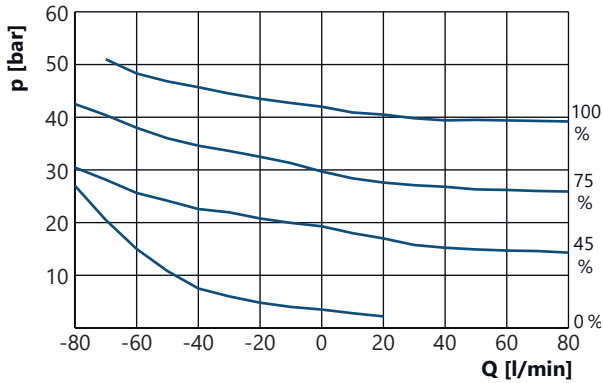
Pressure drop diagram (p/I) EPDRS3-10 at Q = 1,0 l/min



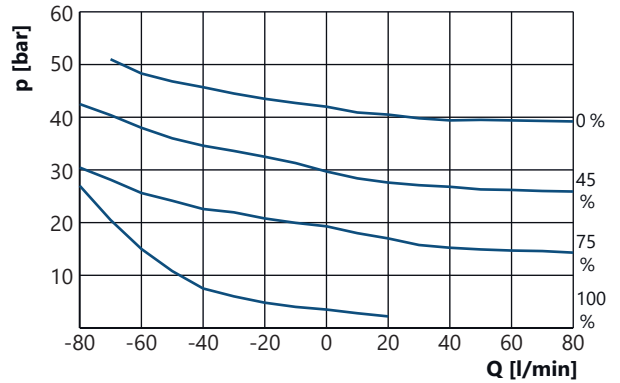
Pressure drop diagram (p/I) EPDRS3-10 degressive version at Q = 1,0 l/min



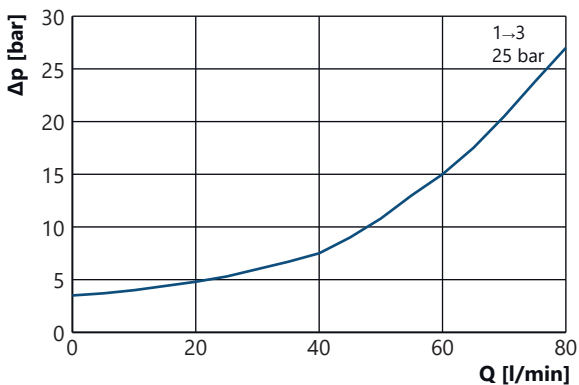
Pressure drop diagram (p/Q) EPDRS3-10 with 25 bar spool at various currents



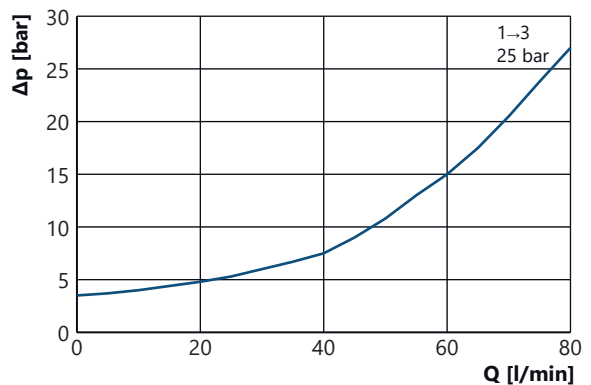
Pressure drop diagram (p/Q) EPDRS3-10 degressive version with 25 bar spool at various currents



Pressure drop diagram ($\Delta p/Q$) EPDRS3-10 at I = 0 mA (currentless)



Pressure drop diagram ($\Delta p/Q$) EPDRS3-10 degressive version at I = 100% (full current)

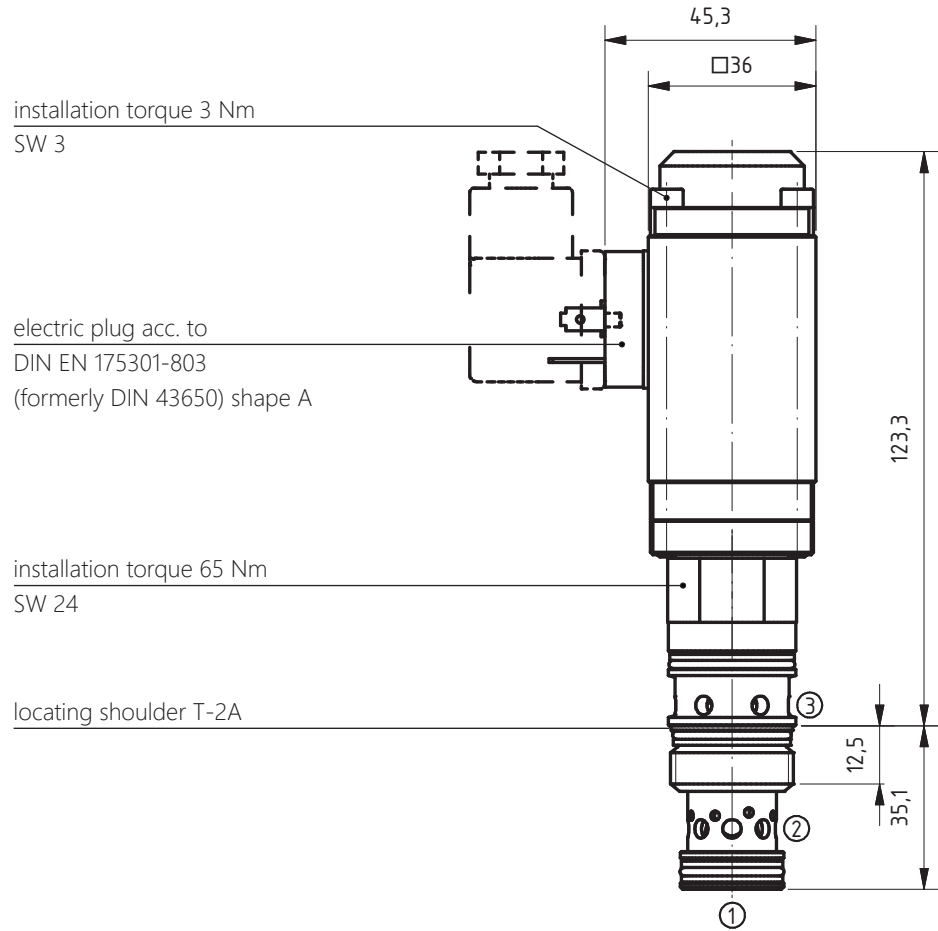


Test conditions

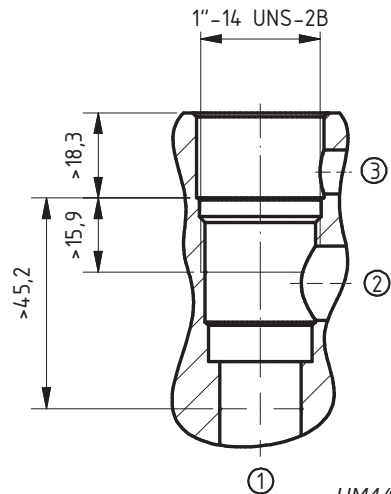
Oil: HLP 32, temperature: 40 °C (~32 cSt)
Higher viscosities change the characteristic curves.

Dimensions

Screw-in valve EEPDRS3-10



Cavity T-2A



HM4/05 25 01

NOTE For a detailed drawing of the cavity 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.

NOTE The valve is also available as EPDRSA3-10 in a mounting plate NG 10. Dimension sheets are available upon request.

NOTE The valve is also available as degressive version.

Dimensions

Screw-in valve
 EPDRS3-10
 degressive



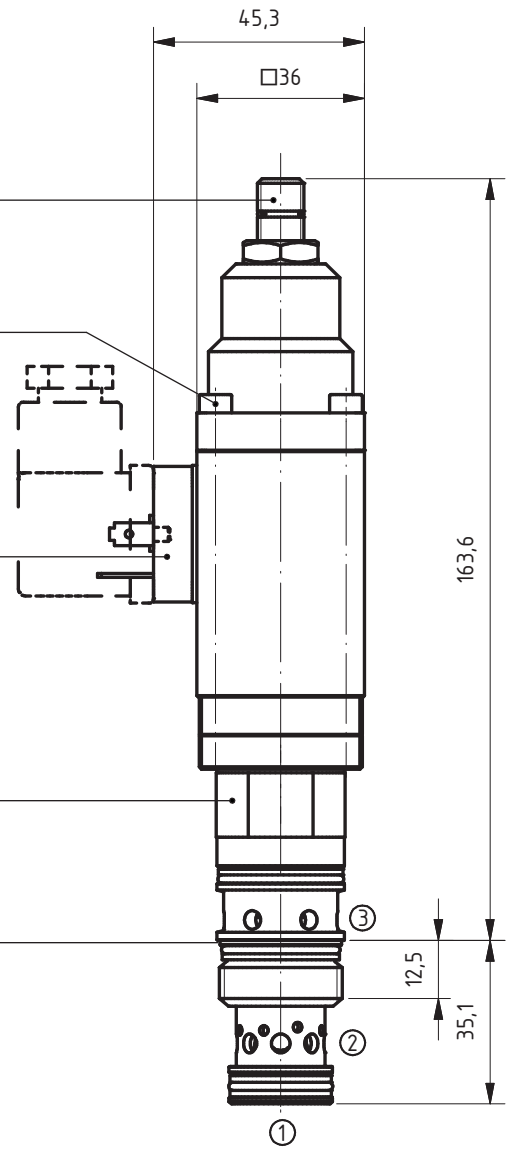
Do not adjust!

installation torque 3 Nm
 SW 3

electric plug acc. to
 DIN EN 175301-803
 (formerly DIN 43650) shape A

installation torque 65 Nm
 SW 22

locating shoulder T-2A

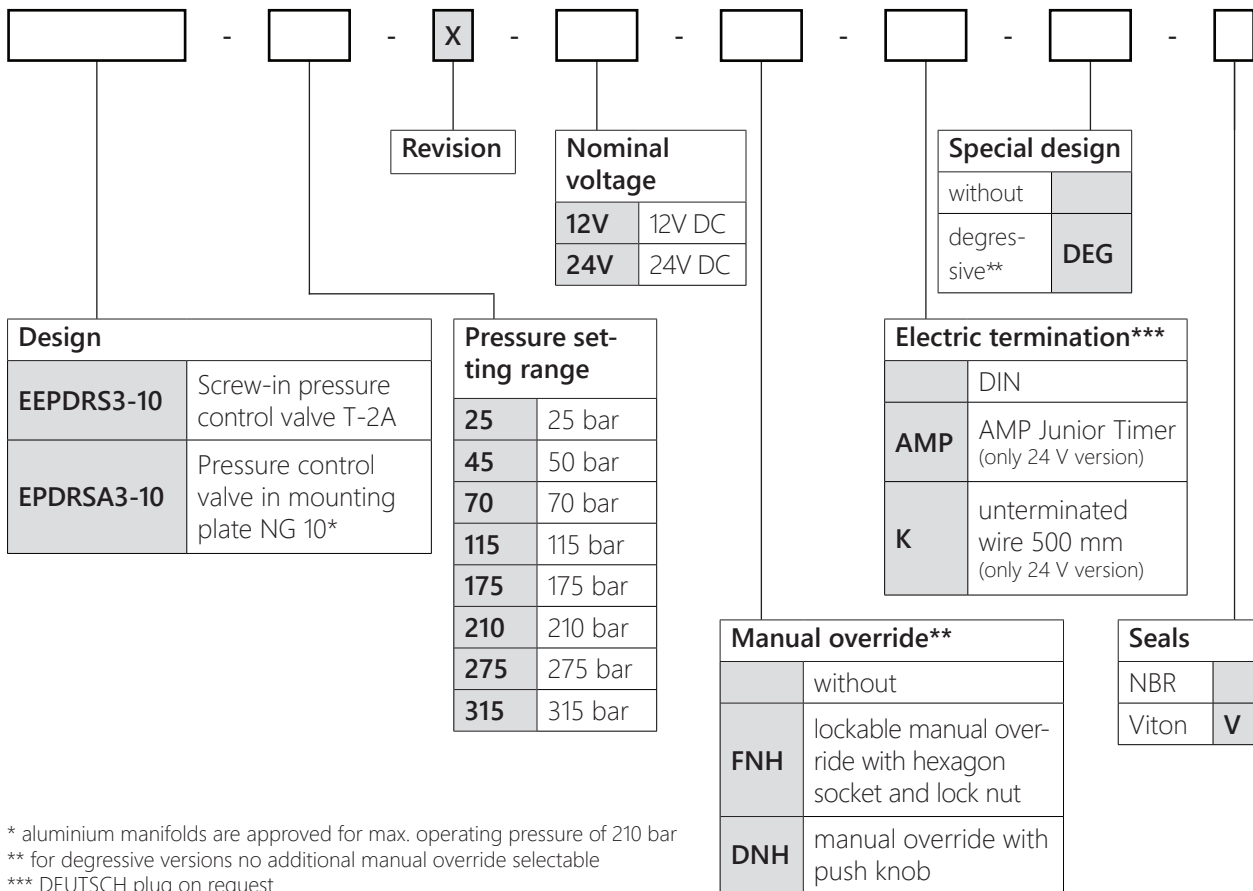


HM4/15 50 14

NOTE For a detailed drawing of the cavity 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



NOTE FOR FNH



The lockable manual override with hexagon socket and lock nut (FNH) could be used to override the pressure control function of the valve. Be aware that the valve can not fulfil its pressure control function if the FNH is screwed in and locked. This can lead to excessive pressure and cause breakage or failure of the components if no parallel pressure relief protection is present.

The FNH should never be screwed in and locked when used in conjunction with a running system!

Accessories and additional information

<i>Accessories/ spare parts</i>	Article:	Article number:
	Socket connector DIN EN 175301-803, shape A, black	149.0007
	Seal kit T-2A (NBR)	405.0042
	Seal kit T-2A (Viton)	405.0043

NOTE For the appropriate electronic controllers, see chapter 6 „*electronics and sensors*“ as well as our online catalogue at www.weber-hydraulik.com.

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



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