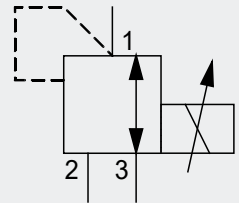


Proportional pressure control valve EPDRD3-04



Directly operated, electrically actuated
Max. operating pressure 315 bar
Rated flow rate up to 4 l/min
Cavity EPDRD3-04



030110_EPDRD3_04
12.2025

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Characteristics

- 3-way proportional pressure control valve in spool design
- Slip-in valve for cavity EPDRD3-04
- Particularly suitable as a pilot valve for pre-control
- Compact design
- Low leakage
- Low vibration
- Maintenance-free
- Degressive versions available
- Can also be used as a 2-way proportional pressure reduction valve (after consulting the factory)

Technical data

Hydraulic characteristics

Max operating pressure:	Port 2 (P): 315 bar, a maximum of 210 bar for casings made of aluminum, Port 1 (A): 45 bar, pressure at 3 (T) < pressure at 1 (A)
Rated flow rate:	4 l/min
Pressure setting range:	See type code
Flow direction:	See symbols
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 3 (T) is added directly to the set value. The total pressure of connection A and T must not exceed the permissible maximum operating pressure.

Mechanical characteristics

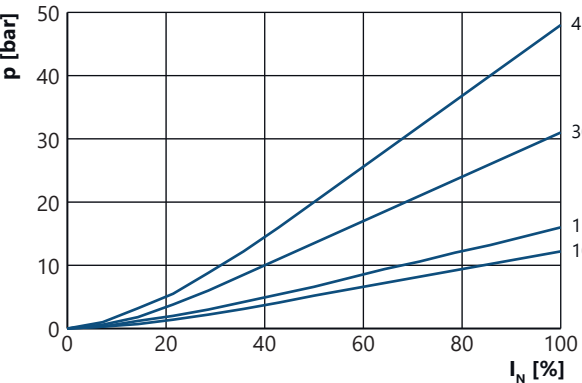
Design:	EEPDRD slip-in valve, EPDRDR in the piping casing, EPDRDA in intermediate plate NG 4 or NG 6 directly operated
Size:	04
Fluid temperature:	-25 °C to +70 °C
Ambient temperature:	-25 °C to +50 °C
Storage temperature:	-30 °C to +60 °C (non-condensing)
Installation position:	Any, preferably horizontal
Permissible acceleration:	5 g crossways
Weight:	EEPDRD3-04: 0.7 kg, EPDRDR3-04: 0.96 kg, DEPDRDR3-04: 1.86 kg, EPDRDA3-04/04: 0.92 kg, EPDRDA3-04/06: 0.98 kg, DEPDRDA3-04/06: 1.82 kg
Materials:	Valve parts: Steel, piping casing and mounting plates: Aluminum, seals: NBR, optional Viton
Surface protection:	Solenoid: galvanized Casing: Anodized aluminum

Electrical characteristics

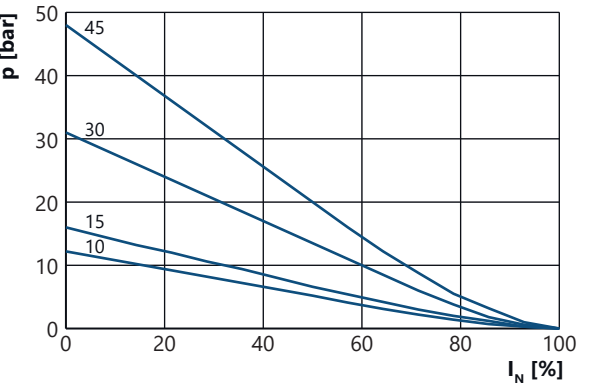
Rated voltage:	12 V DC, 24 V DC
Rated solenoid current:	1.7 A (12 V), 0.7 A (24 V)
Rated resistance (R20):	4 Ω (12 V), 25 Ω (24 V)
Power consumption:	16 W at rated solenoid current
Power-on time:	100 % PO
Control command:	PWM signal
PWM frequency:	Typically 140 Hz (depending on the application)
Protection 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" on our website at www.weber-hydraulik.com .

Characteristic curves

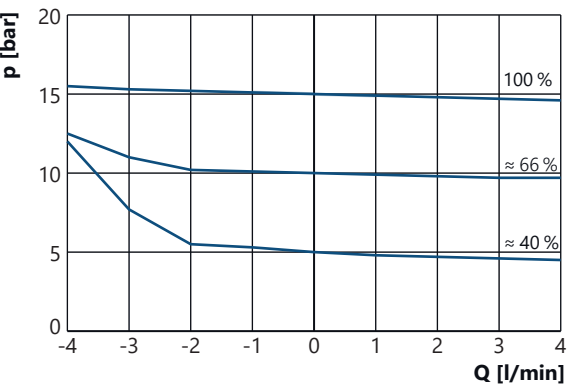
Pressure characteristic curve (p/I) EPDRD3-04 at Q = 0 l/min (static)



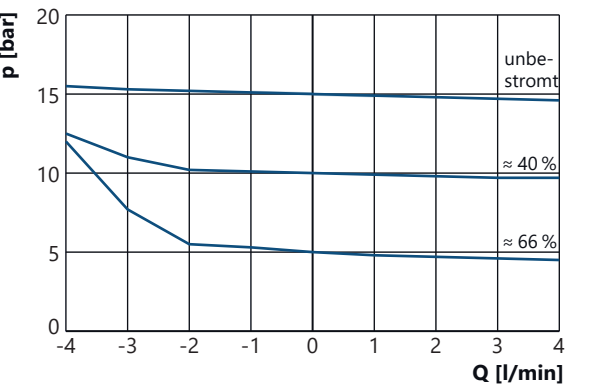
Pressure characteristic curve (p/I) EPDRD3-04 degressive version at Q = 0 l/min (static)



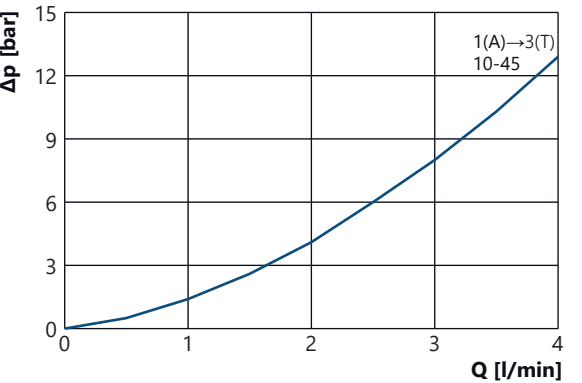
Pressure characteristic curve (p/Q) EPDRD3-04 with 15 bar controller with different current



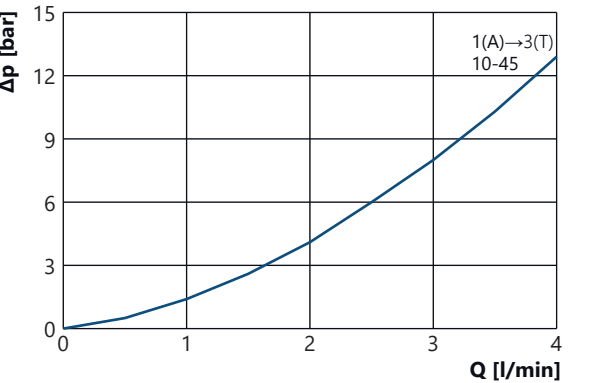
Pressure characteristic curve (p/Q) EPDRD3-04 degressive version with 15 bar controller with different current



Pressure loss characteristic curve ($\Delta p/Q$) EPDRD3-04 at I = 0 mA (deenergized)



Pressure loss characteristic curve ($\Delta p/Q$) EPDRD3-04 degressive version at I = 100 % (full current)

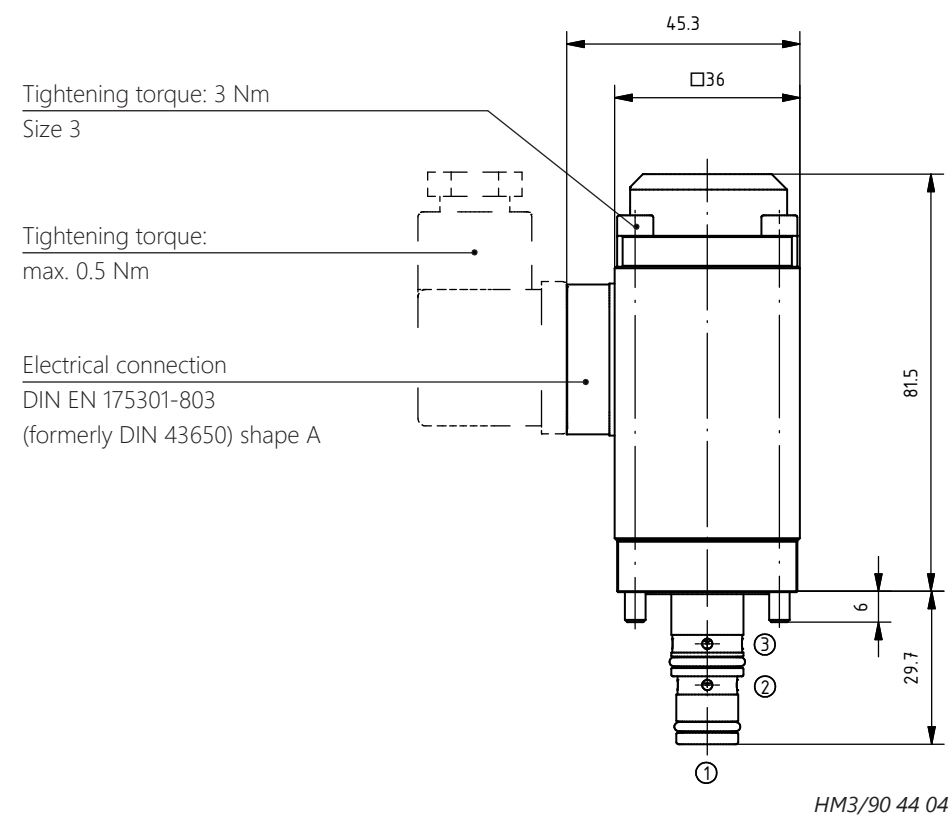


Measurement conditions

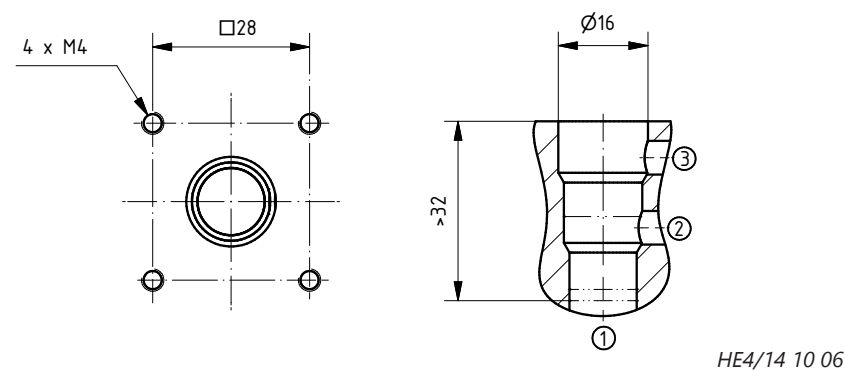
Oil: HLP 32, temperature: 40 °C (~32 cSt).
Higher viscosities change the characteristic curves.

Dimensions

Slip-in valve
EEPDRD3-04



Cavity
EPDRD3-04



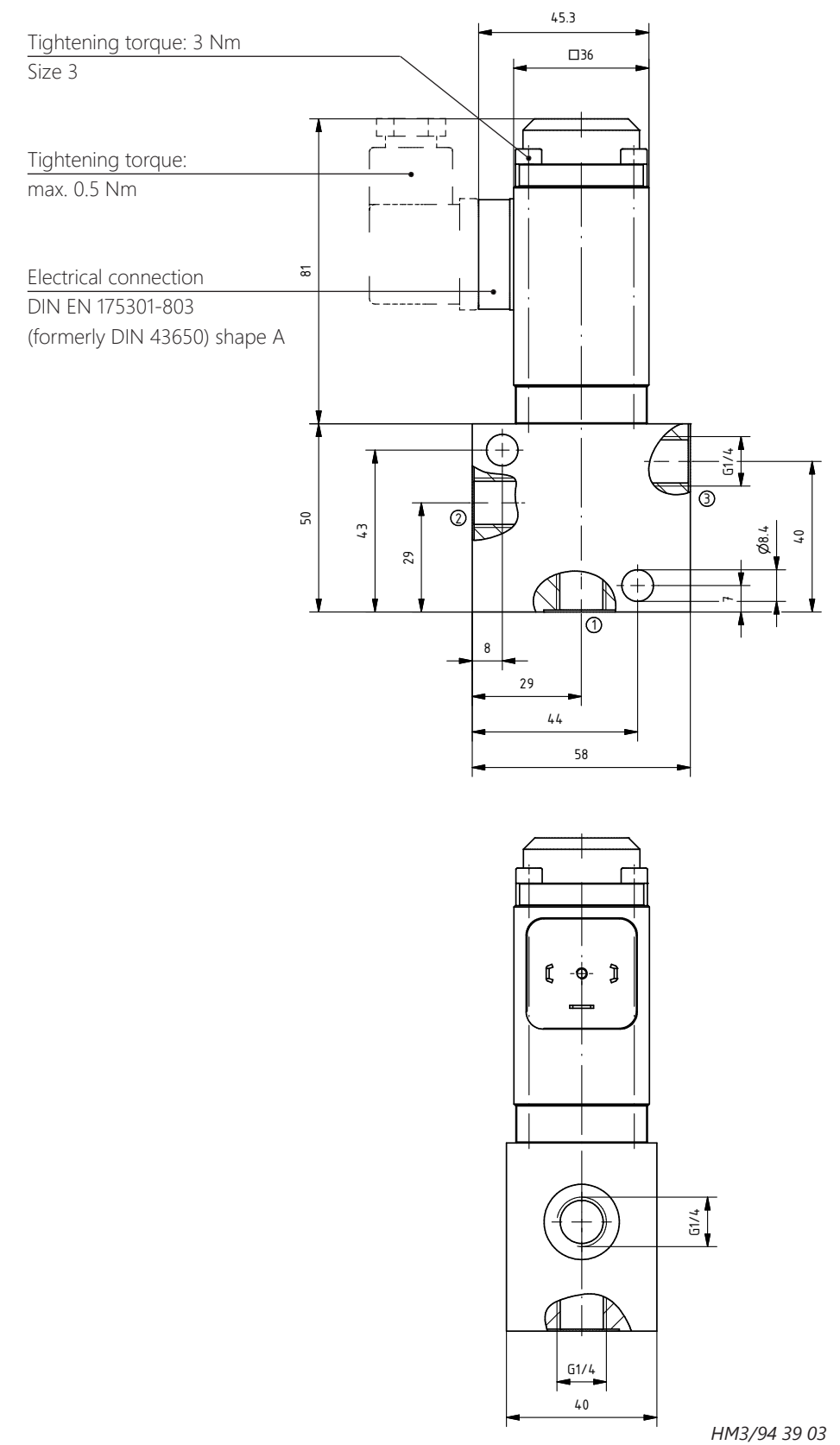
NOTE A detailed drawing of the cavity is provided in section 11, “General information” at www.weber-hydraulik.com.

NOTE The valve is also available as EPDRDA3-04/04 in a mounting plate NG 4 or as EPDRDA3-04/06 in a mounting plate NG 6. Dimension sheets are available upon request.

NOTE The valve is also available as a degressive version.

Dimensions

Slip-in valve in the
piping casing G 1/4"
EPDRDR3-04



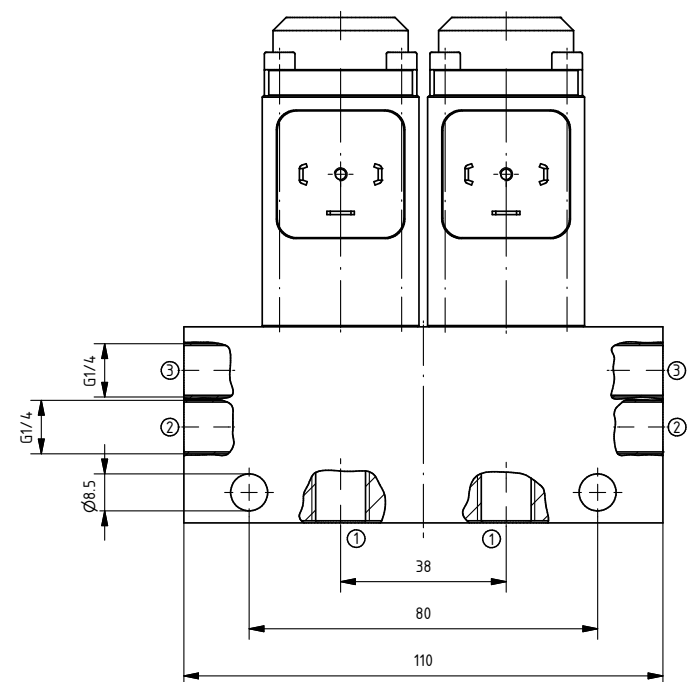
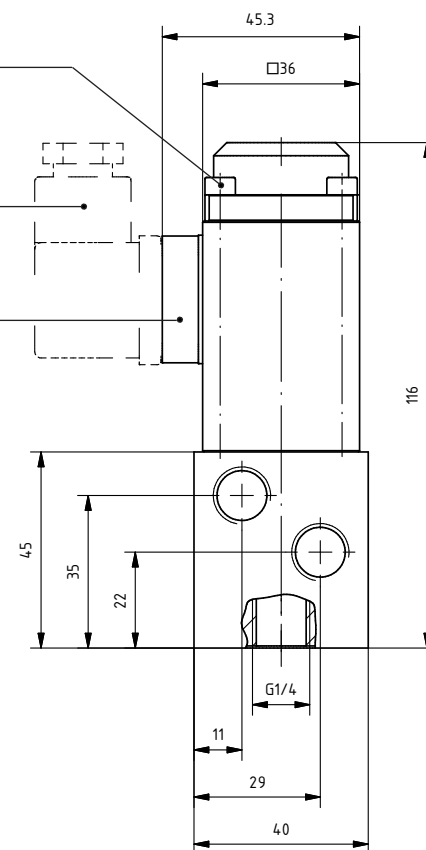
Dimensions

Two slip-in valves
in the 2-fold piping
casing G 1/4"
DEPDRDR3-04

Tightening torque: 3 Nm
Size 3

Tightening torque:
max. 0.5 Nm

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



HM4/98 35 03

Dimensions

Slip-in valve
EEPDRD3-04,
degressive



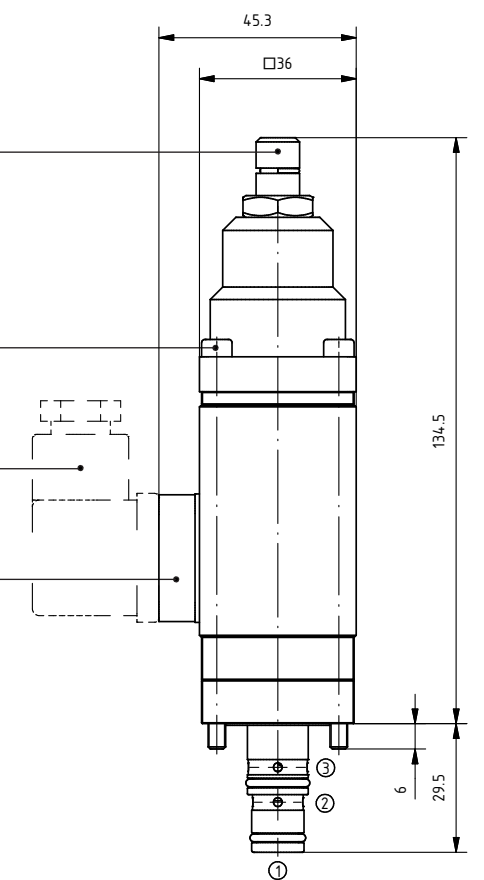
Do not adjust!

Tightening torque: 3 Nm

Size 3

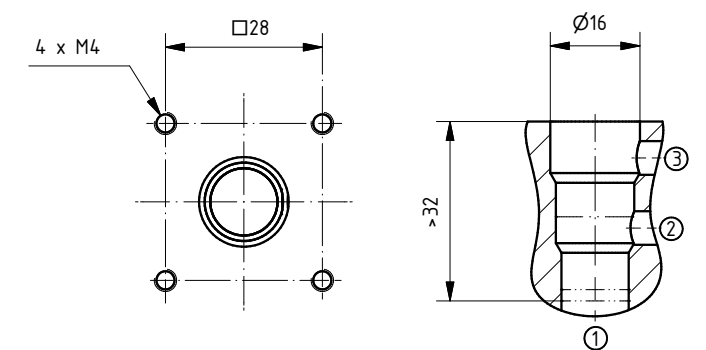
Tightening torque:
max. 0.5 Nm

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



HM4/12 46 04

Cavity
EPDRD3-04

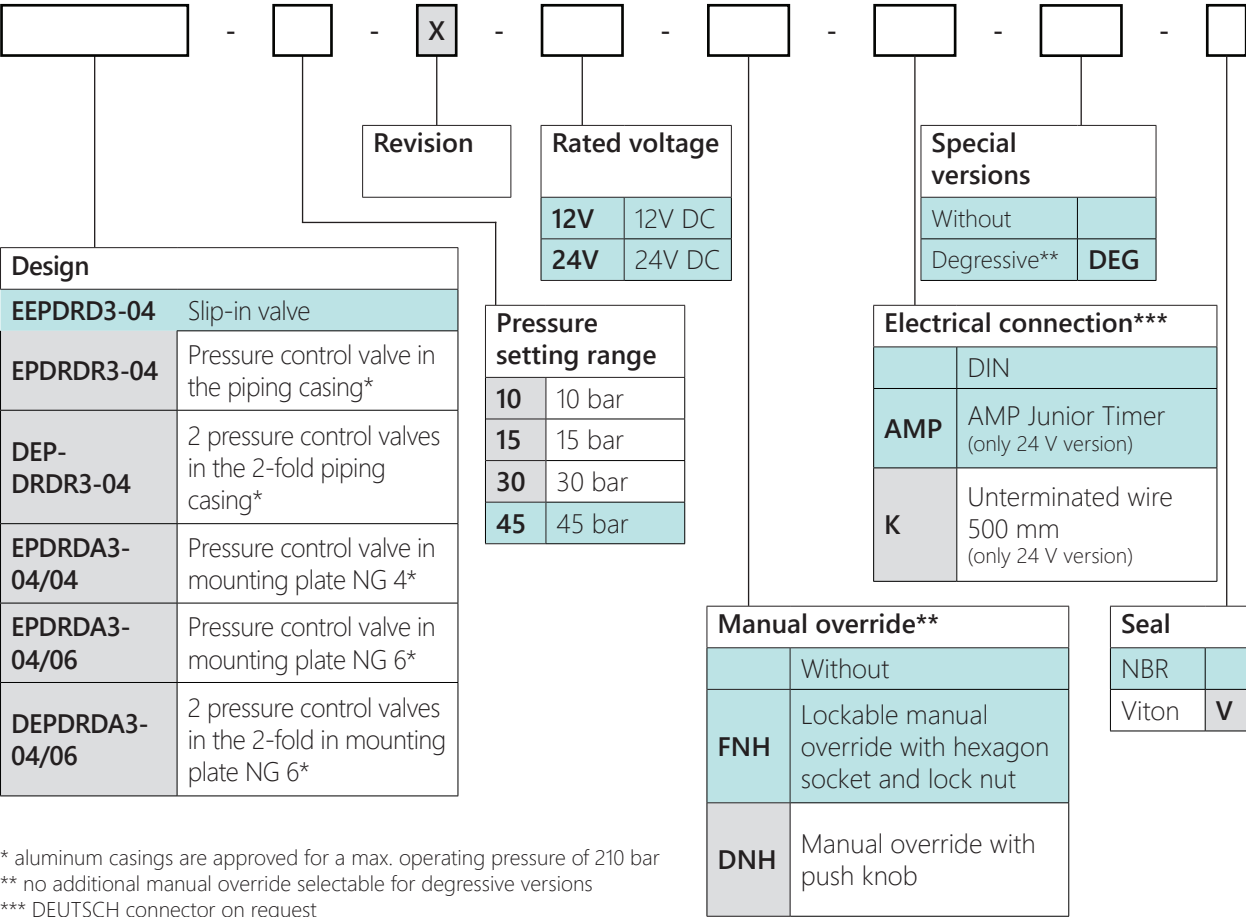


HE4/14 10 06

NOTE A detailed drawing of the cavity is provided in section 11, “General information” at www.weber-hydraulik.com.

NOTE The valve is also available as EPDRDA3-04/04 in a piping casing and as EPDRDA3-04/04 in a mounting plate NG 4 or as EPDRDA3-04/06 in a mounting plate NG 6. Dimension sheets are available upon request.

Type code



NOTE FOR FNH



The FNH lockable manual override can be used to override the pressure control function of the valve. Be aware that the valve can not fulfill 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 when used in conjunction with a running system!

Accessories and further information

Accessories/spare parts	Article:	Article number:
	Socket DIN EN 175301-803 (formerly DIN 43650), shape A, black	149.0007
	Seal kit EEPDRD3-04 (NBR)	405.0060
	Seal kit EEPDRD3-04 (Viton)	405.0097
NOTE	For appropriate electronic controllers, see section 6, "Electronics and Sensors" at 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.	



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Subject to changes