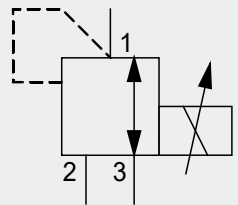


Proportional pressure control valve EPDRD3-05



Directly operated, electrically actuated
Max. operating pressure 315 bar
Rated flow rate up to 12 l/min
Cavity T-11A or C-10-3



030120_EPDRD3_05
12.2025

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Characteristics

- 3-way proportional pressure control valve in spool design
- Screw-in valve for cavity T-11A or
- Screw-in valve for cavity C-10-3
- 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:	315 bar, a maximum of 210 bar for casings made of aluminum, Pressure at port 3 (T) < pressure at port 1 (A)
	Rated flow rate:	12 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	

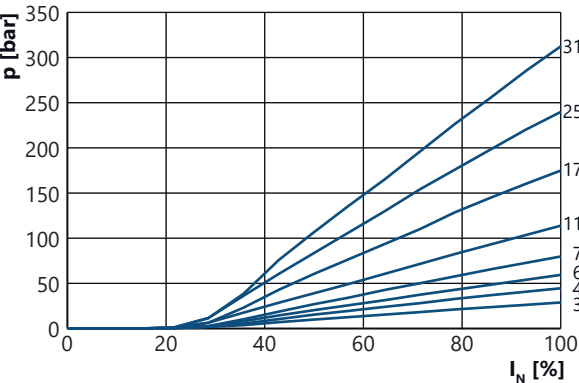
NOTE The pressure at connection 3 (T) is added directly to the set value. The total pressure of connection A and T must not exceed the permissible maximum operating pressure.

Mechanical characteristics	Design:	EEPDRDS screw-in valve T-11A or EEPDRDM screw-in valve C-10-3, EPDRDSA screw-in valve in mounting plate NG 6, directly operated 05
	Size:	
	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:	EEPDRDS3-05: 0.76 kg, EEPDRDM3-05: 0.86 kg, EPDRDSA3-05/06: 1.07 kg
	Materials:	Valve parts: Steel, mounting plate: Aluminum Seals: NBR, optional Viton
	Surface protection:	Exterior parts: Galvanized steel, partially burnished, casing: Anodized aluminum

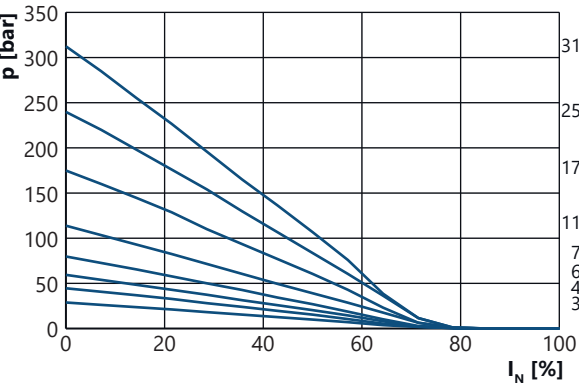
Electrical characteristics	Rated voltage:	12 V DC, 24 V DC
	Rated solenoid current:	1.7 A (12 V), 0.7 A (24 V)
	Rated resistance (R20):	4 Ω (12 V), 25 Ω (24 V)
	Power consumption:	16 W at rated solenoid current
	Power-on time:	100 % PO
	Control command:	PWM signal
	PWM frequency:	Typically 140 Hz (depending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

Characteristic curves

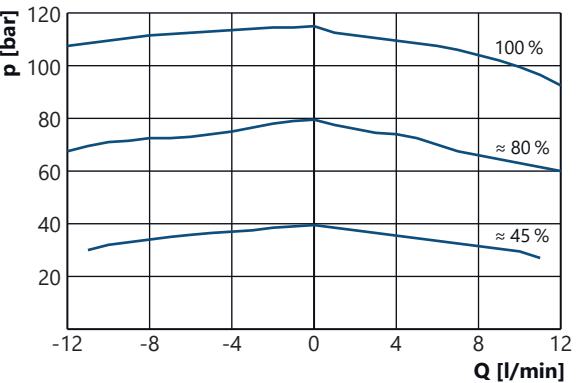
Pressure characteristic curve (p/I) EPDRD3-05 at Q = 0 l/min (static)



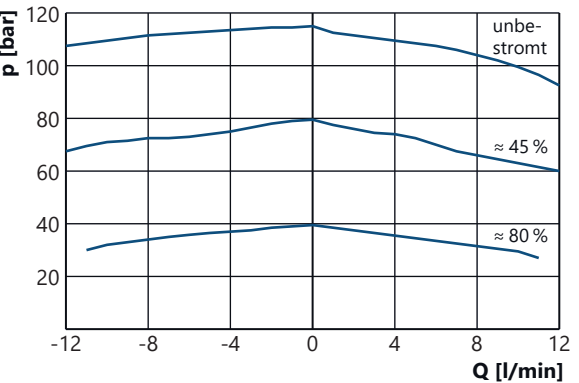
Pressure characteristic curve (p/I) EPDRD3-05 degressive version at Q = 0 l/min (static)



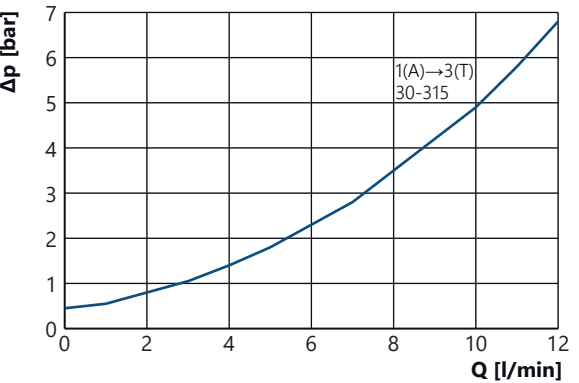
Pressure characteristic curve (p/Q) EPDRD3-05 with 115 bar controller with different current



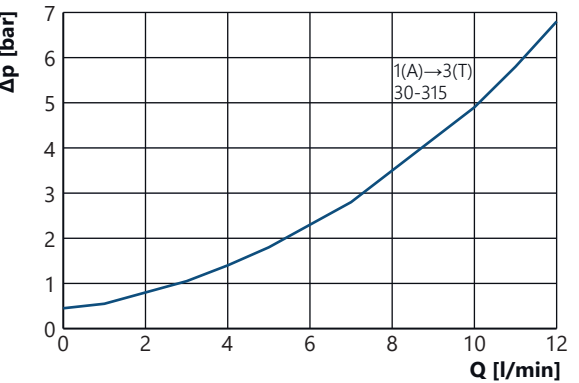
Pressure characteristic curve (p/Q) EPDRD3-05 degressive version with 115 bar controller with different current



Pressure loss characteristic curve ($\Delta p/Q$) EPDRD3-05 at I = 0 mA (deenergized)

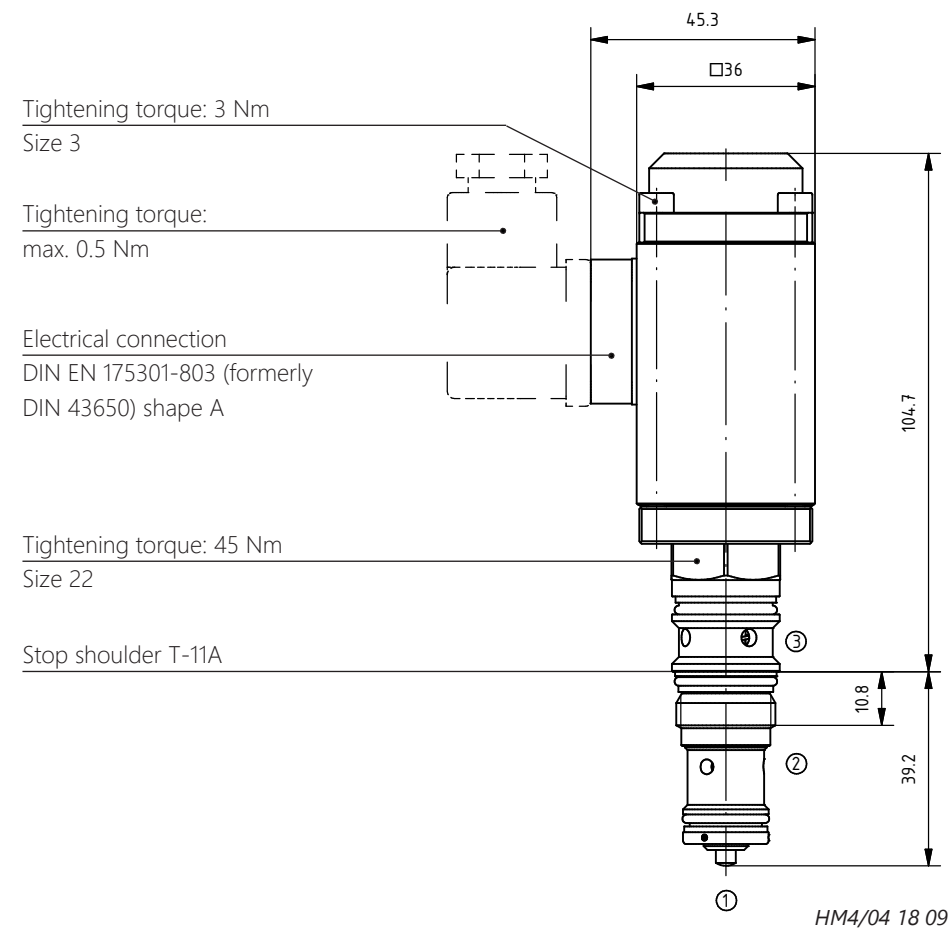
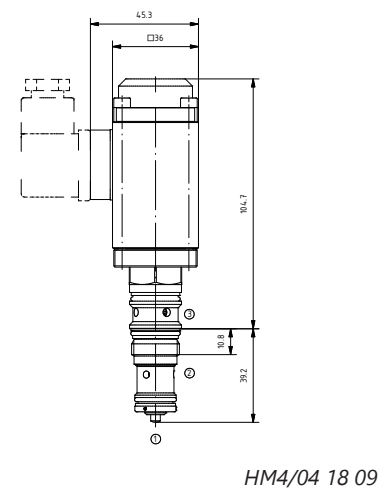


Pressure loss characteristic curve ($\Delta p/Q$) EPDRD3-05 degressive version at I = 100 % (full current)



Measurement conditions

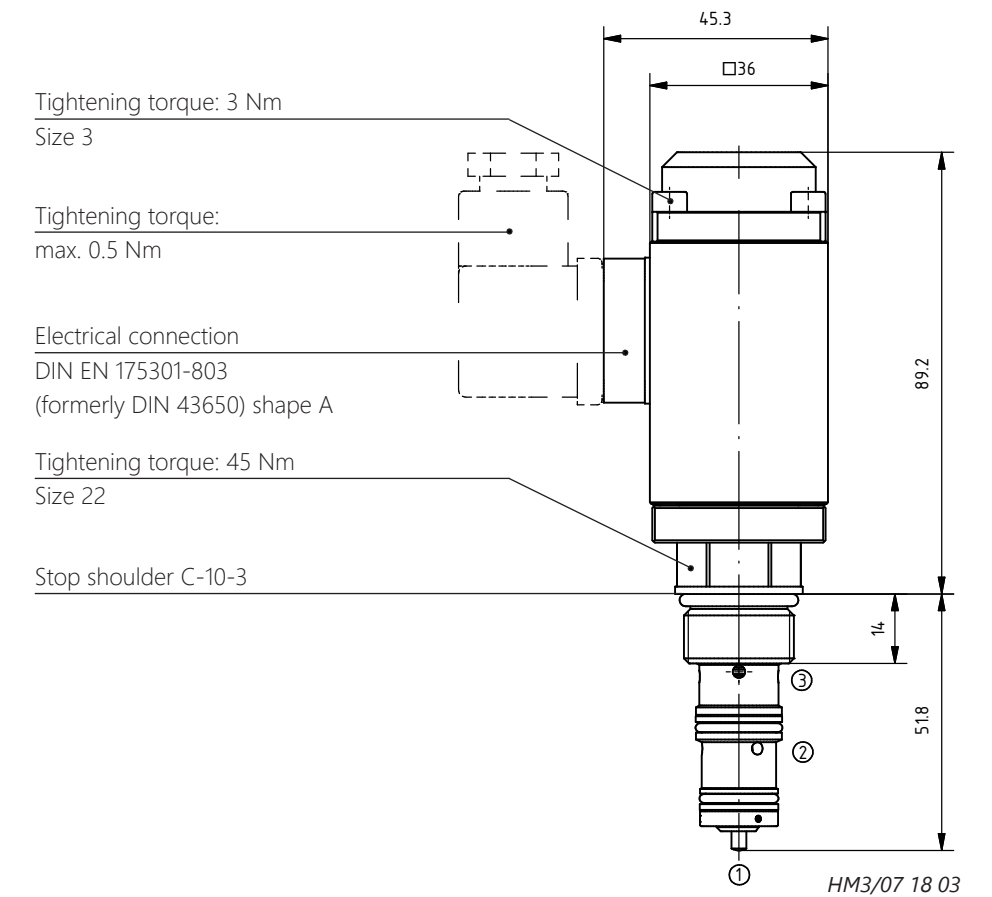
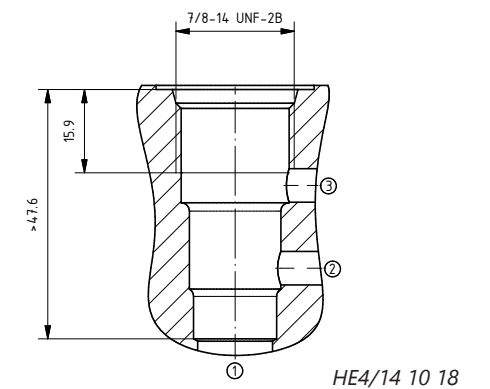
Oil: HLP 32, temperature: 40 °C (~32 cSt).
Higher viscosities change the characteristic curves.

Dimensions*Screw-in valve
EEPDRDS3-05**Cavity T-11A*

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

NOTE Suitable casings and connection plates are available in section 10, "Connecting Plates and Manifolds" at www.weber-hydraulik.com. The valve is also available as EPDRDSA3-05/06 in an NG 6 mounting plate. Dimension sheets are available upon request.

NOTE The valve is also available as a degressive version.

Dimensions*Screw-in valve
EEPDRDM3-05**Cavity C-10-3*

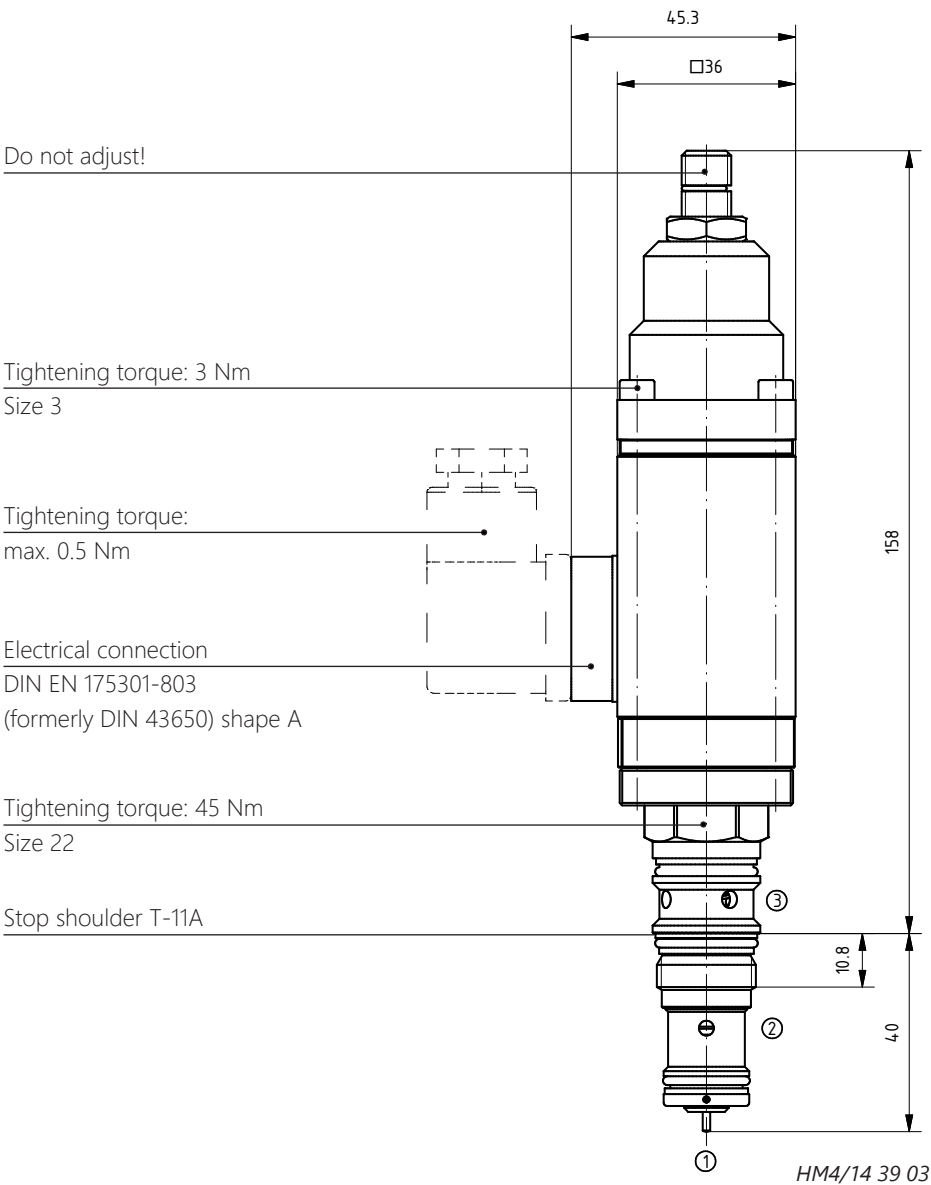
NOTE A detailed drawing of the cavity is provided in section 11, "General information" at www.weber-hydraulik.com.

NOTE Suitable casings for C-10-3 are available on request.

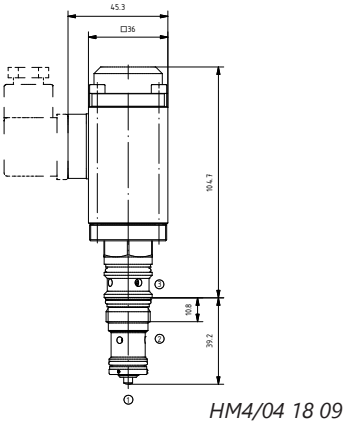
NOTE The valve is also available as a degressive version.

Dimensions

Screw-in valve
EEPDRDS3-05,
degressive

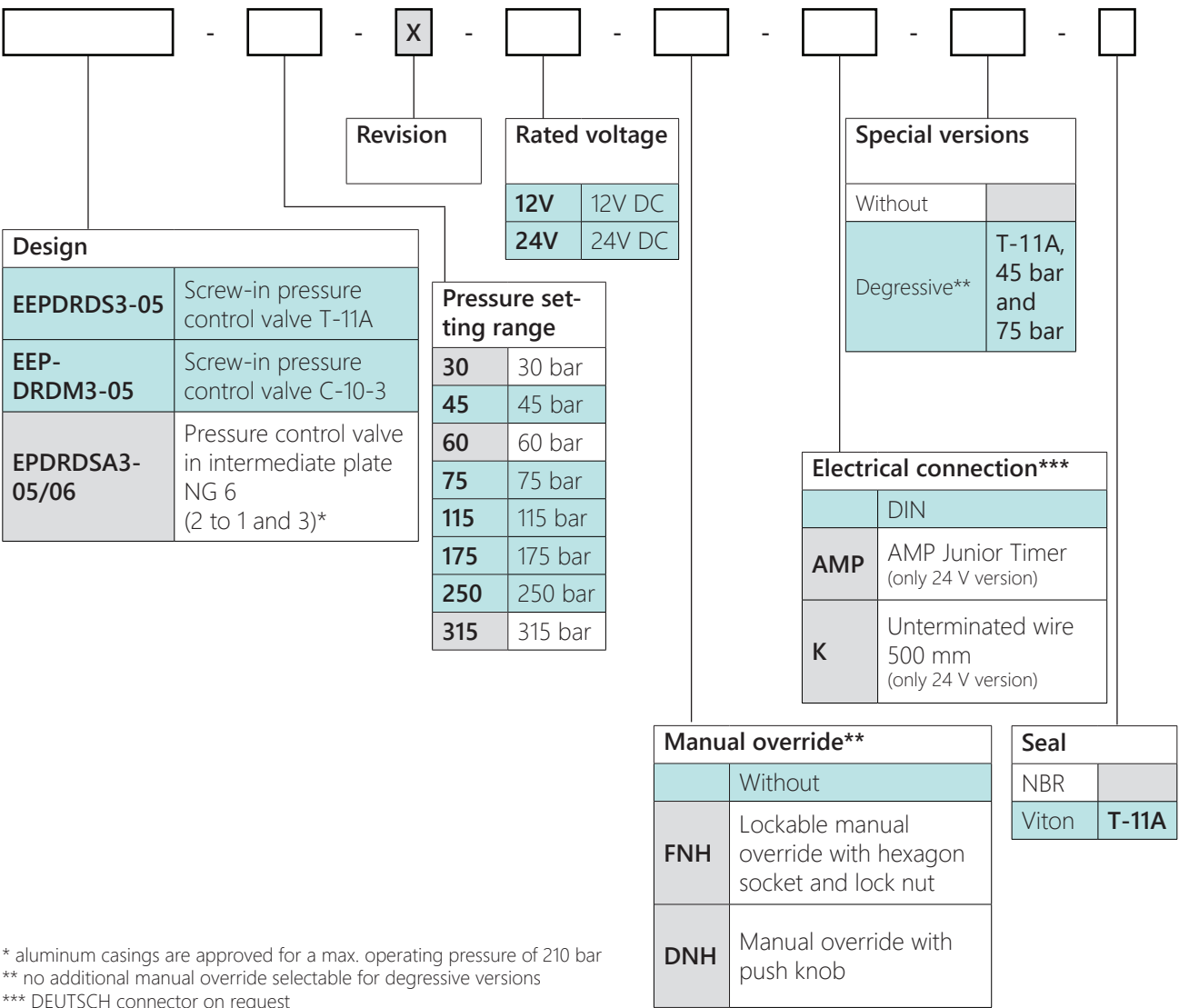


Cavity T-11A



- NOTE** A detailed drawing of the cavity is provided in section 11, "General information" at www.weber-hydraulik.com.
- NOTE** Suitable casings and connection plates are available in section 10, "Connecting Plates and Manifolds" at www.weber-hydraulik.com.
- NOTE** The valve is also available as EEPDRDM3-05 in a degressive version.

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!

Standard program

Accessories and further information

<i>Accessories/spare parts</i>	Article:	Article number:
	Socket DIN EN 175301-803 (formerly DIN 43650), shape A, black	149.0007
	Seal kit T-11A (NBR)	405.0038
	Seal kit T-11A (Viton)	405.0039
	Seal kit C-10-3 (NBR)	405.0063
	Seal kit C-10-3 (Viton)	405.0096

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.