

- **direct operated**
- **INVERSE function available**
- $Q_{max} = 20 \text{ l/min}$
- $p_{max} = 350 \text{ bar}$

INVERS



Description

EPDB

The direct operated proportional pressure relief valve is built as a slip-in cartridge fitted in a connecting flange.

By adjusting the electric current to the solenoid the operating pressure changes proportionally. When the operating pressure is reached, the poppet spool opens and connects the protected line to the tank. Back pressure in T influences thereby the pressure in the protected pressure lines. These pressure relief valves are built according to the differential spool principle and are therefore very sensitive adjustable over the whole pressure range and also suitable for systems with extremely low minimum pressures.


The valves have their applications in hydraulic systems in which the pressure frequently has to be changed. The facility for remote control and signal processing from process control systems enable economical solutions for repeatable sequences.

EPDB INVERSE

Direct operated proportional pressure relief valve. A spring force works against the hydraulic pressure. With solenoid deenergized the maximum operating pressure is present. The force of the proportional solenoid counteracts the spring force. With increasing solenoid current the operating pressure declines (inverse function).

Technical Data

General Specifications	EPDB
Nominal size:	NG6, DIN 24340 A 06, ISO 4401-03, Cetop 3
Mounting position:	any (solenoid down, only after consulting the manufacturer)

Solenoid coil	Exd-L15
Explosion protection marking:	 II 2 G Ex d IIC T4
Type:	MKY45/18x60-G24/L15
EC-type examination certificate:	PTB 07 ATEX 1023 IECEX PTB 10.0020
Ambient temperature:	- 25° ... + 70°C
Rated voltage:	24 VDC
Rated Power:	15 W
Limiting current:	450mA
Operating time:	100%
Protection class:	IP65 acc. to EN 60 529
Connection:	Terminal box with thread M20x1.5

Safety instructions for Exd-L15

The solenoid coils must only be mounted on those valves assigned to. It is essential to read the solenoids operating instructions.

Hydraulic Specifications	
Max. volume flow:	$Q_{max} = 20 \text{ l/min}$ for $p_N = 20 / 63 / 100 \text{ bar}$
	$Q_{max} = 15 \text{ l/min}$ for $p_N = 200 \text{ bar}$
	$Q_{max} = 12.5 \text{ l/min}$ for $p_N = 250 \text{ bar}$
	$Q_{max} = 10 \text{ l/min}$ for $p_N = 315 / 350 \text{ bar}$
Max. pressure:	$p_{max} = 315 \text{ bar}$
Fluid:	Mineral oil, other fluids on request
Fluid temperature:	- 20° ... + 70° C
Viscosity range:	12 - 320 mm ² /s (cSt)
Filtration:	25 μm minimum, recommended: 10μm or better
Resolution:	1 mA
Repeatability:	≤ 1 % at optimal dither signal
Hysteresis:	≤ 2 % at optimal dither signal

Overview

Symbols	Description	Design
	EPDB-...-SD	Pressure relief from P to T flange construction
	EPDB-...-SW	Pressure relief from P to T sandwich construction
	EPDB-...-INV-SD	Pressure relief from P to T inverse function flange construction
	EPDB-A-...-SD	Pressure relief from A to T flange construction
	EPDB-A-...-INV-SD	Pressure relief from A to T inverse function flange construction

Type code

EPDB	-...	-06	-...	-...	-SD	-...
						Exd-L15 = II 2 G Ex d IIC T4
						SD = flange construction
						SW = sandwich construction (INVERSE and A-T on request)
						omit = normal function
						INV = inverse function
						nominal pressure range
						20 = 20 bar 100 = 100 bar 250 = 250 bar
						63 = 63 bar 200 = 200 bar 315 = 315 bar 350 = 350 bar
						06 = NG 6
						omit = Pressure relief from P-T
						A = Pressure relief from A-T
						proportional pressure relief valve, direct operated

Ordering code (example):

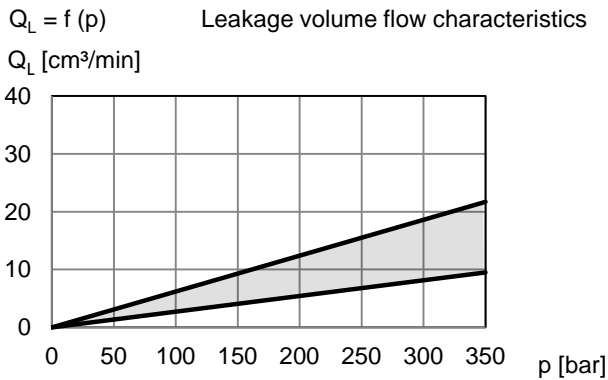
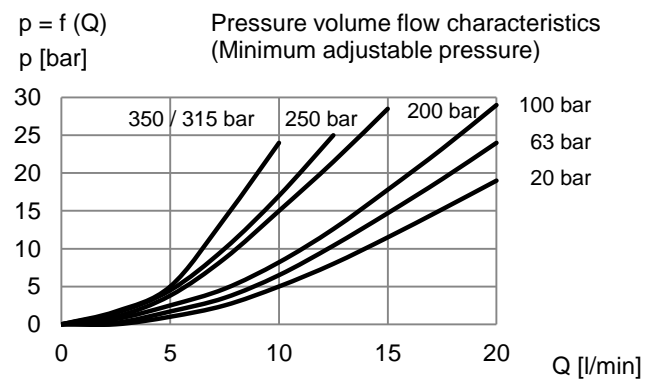
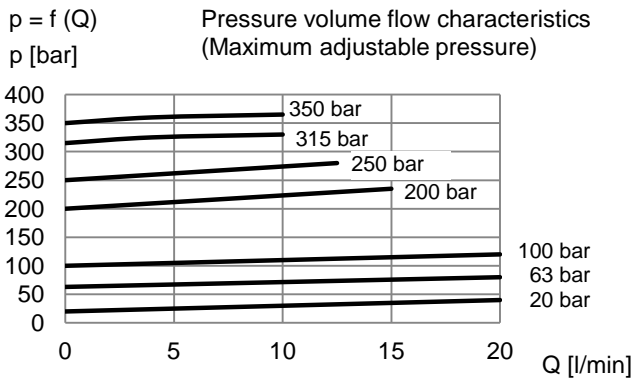
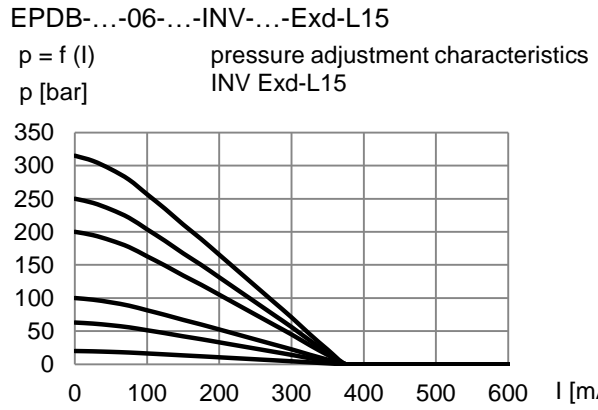
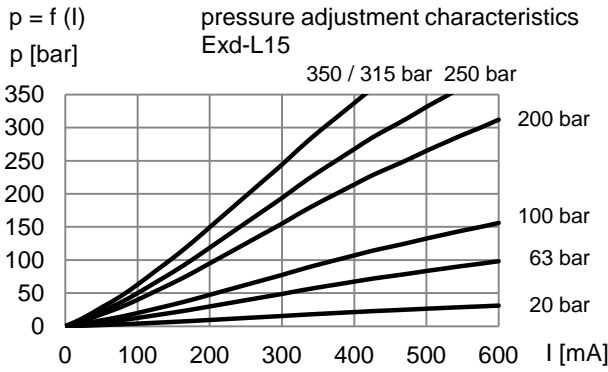
- Proportional pressure relief valve NG6
- Pressure relief from A to T
- Nominal pressure range 200 bar
- Flange construction
- Explosion proof execution II 2 G Ex d IIC T4

Type Code

EPDB-A-06-200-SD-Exd-L15

Characteristics

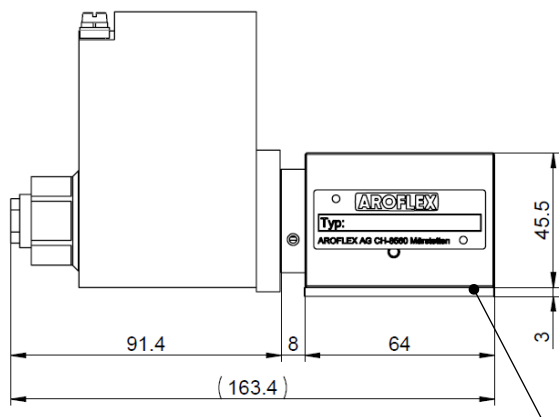
oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$
 EPDB-...-06-...-...-Exd-L15



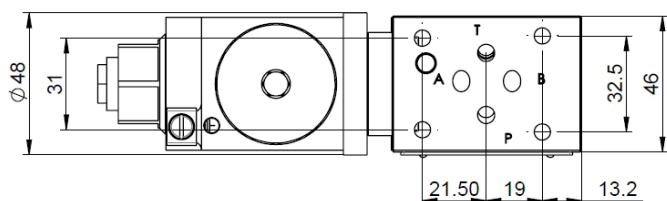
Dimensions

EPDB-...-06-...-SW-Exd-L15

Weight: 2.55 kg



Order distance plate 3 / 12 / 30 mm separately



EPDB-...-06-...-SD-Exd-L15

Weight: 2.8 kg

EPDB-...-06-...-INV- SD-Exd-L15

Weight: 3.05 kg

