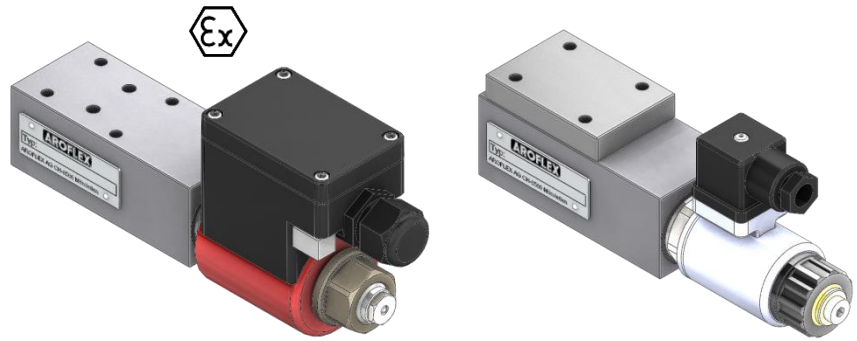


- **direct operated**
- $Q_{max} = 25 \text{ l/min}$
- $p_{max} = 400 \text{ bar}$
- $p_{Nmax} = 350 \text{ bar}$



## Description

The direct operated proportional pressure relief valve is available in flange and sandwich construction according to ISO 4401-03. Incorporated is a proportional pressure relief cartridge size M22x1,5 according to ISO 7789.



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.

## Technical Data

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

Solenoid coil	24VDC	Exm	Exd
Explosion protection marking:	none	 II 2 G Ex emb II T4	 II 2 G Ex d IIC T4
Type:		2A52W	2A67W
EC-type examination certificate:		PTB 01 ATEX 2129 X	PTB 98 ATEX 1009
Ambient temperature:	- 20° ... + 70°C	- 20° ... + 40°C	- 20° ... + 60°C
Rated voltage:	24VDC	24VDC	24VDC
Current range:	0 - 0.68 A	0 - 0.7 A*	0 - 0.58 A*
Rated power:	16 W	17 W	14 W
Operating time:	100%		
Protection class:	IP65 nach EN 60 529		
Connection:	Plug connection ISO 4400/DIN 43650 (2P+E)	Terminal box	Terminal box with thread M20x1.5

### Safety instructions for Exm and Exd

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

\*It must be ensured to remain within the rated voltage and power, with higher temperatures it is not possible to utilise the full current range.

Hydraulic Specifications			
Max. volume flow:	$Q_{max} = 10 \text{ l/min}$ for $p_N = 350 \text{ bar}$		
	$Q_{max} = 20 \text{ l/min}$ for $p_N = 315 \text{ bar}$		
	$Q_{max} = 25 \text{ l/min}$ for $p_N = 200 \text{ bar}, 100 \text{ bar}$ and $20 \text{ bar}$		
Max. pressure:	$p_{max} = 400 \text{ bar}$		
Fluid:	Mineral oil, other fluids on request		
Fluid temperature::	- 20° ... + 70° C	- 20° ... + 40° C	- 20° ... + 60° C
Viscosity range:	12-320 mm <sup>2</sup> /s (cSt)		
Filtration:	25 µm minimum, recommended: 10µm or better		
Resolution:	1 mA		
Repeatability:	≤ 1.5 % at optimal dither signal		
Hysteresis:	≤ 3 % at optimal dither signal		

Overview

Symbols	Description	Design
	PEPDB-06-...-SD ...	Pressure relief from P to T flange construction
	PEPDB-06-...-SW ...	Pressure relief from P to T sandwich construction
	PEPDB-06-...-SWA ...	Pressure relief from A to T sandwich construction
	PEPDB-06-...-SWB ...	Pressure relief from B to T sandwich construction
	PEPDB-06-...-SWAB ...	Pressure relief from AB to T sandwich construction

Type code

PEPDB	-06	-...	-...	-...
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- omit** = 24 VDC standard
- Exm** = II 2 G Ex emb II T4
- Exd** = II 2 G Ex d IIC T4
- SD** = flange construction (P → T)
- SW** = sandwich construction (P → T)
- SWA** = sandwich construction (A → T)
- SWB** = sandwich construction (B → T)
- SWAB** = sandwich construction (AB → T)

- nominal pressure range**
- 20** = 20 bar    **200** = 200 bar    **350** = 350 bar
  - 100** = 100 bar    **315** = 315 bar

**06** = NG 6

**proportional pressure relief valve, direct operated**

Ordering code (example):

- Proportional pressure relief valve NG6
- Pressure relief from P to T
- Sandwich construction
- Explosion proof execution II 2 G Ex emb II T4

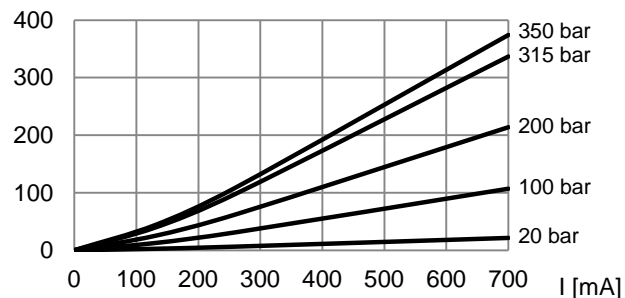
Type Code

**PEPDB-06-350-SW-Exm**

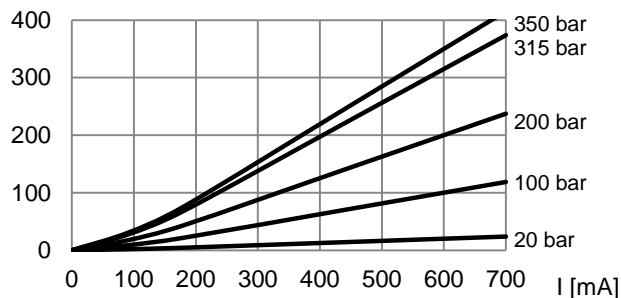
**Characteristics**

oil viscosity  $\nu = 30 \text{ mm}^2/\text{s}$

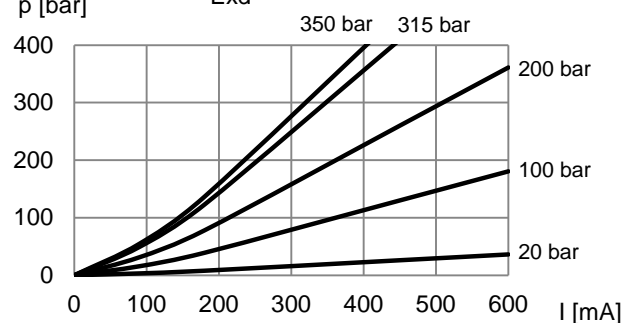
$p = f(I)$  pressure adjustment characteristics  
 $p$  [bar] 24 VDC Standard



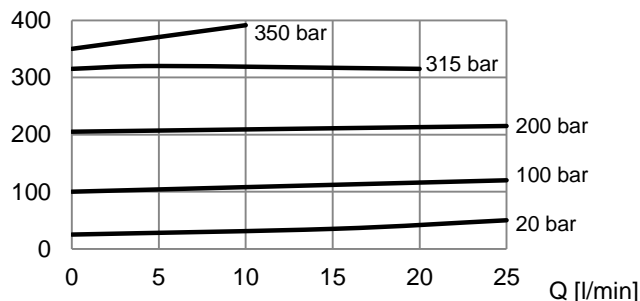
$p = f(I)$  pressure adjustment characteristics  
 $p$  [bar] Exm



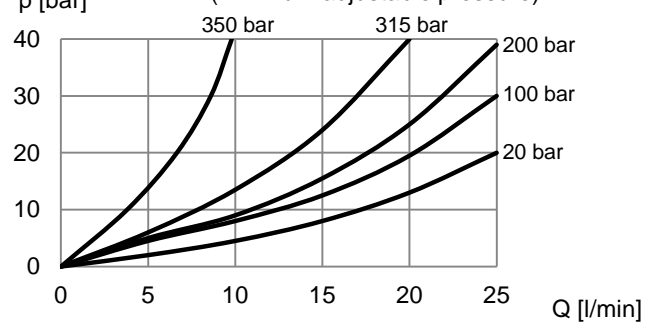
$p = f(I)$  pressure adjustment characteristics  
 $p$  [bar] Exd



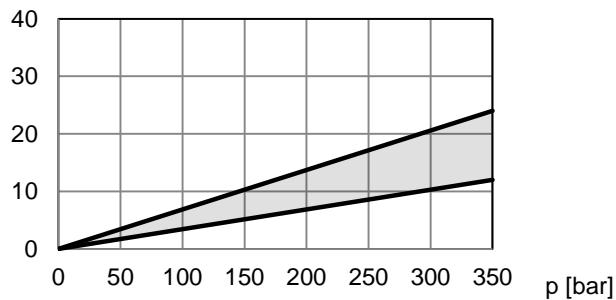
$p = f(Q)$  Pressure volume flow characteristics  
 $p$  [bar] (Maximum adjustable pressure)



$p = f(Q)$  Pressure volume flow characteristics  
 $p$  [bar] (Minimum adjustable pressure)



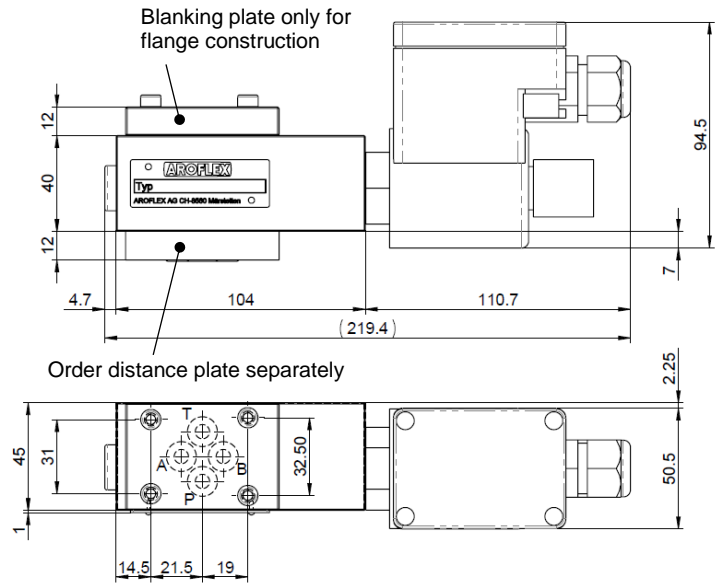
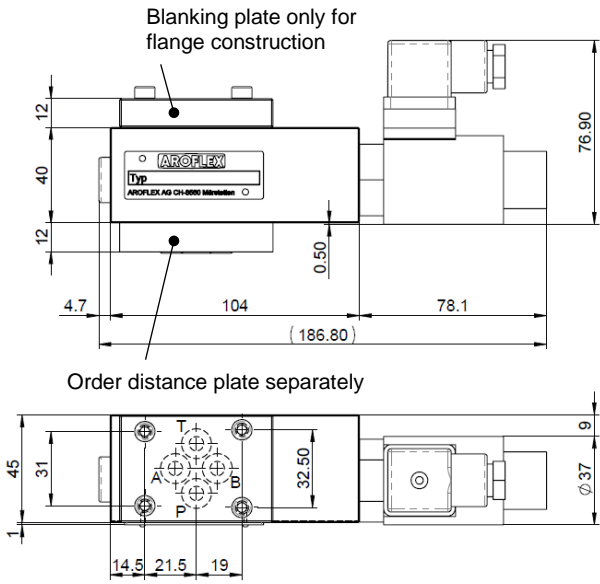
$Q_L = f(p)$  Leakage volume flow characteristics



**Dimensions**

pictured: PEPDB-06-...-SD / SWB  
 Weight: 2 kg

pictured: PEPDB-06-...-SD / SWB-Exm  
 Weight: 2.7 kg



pictured: PEPDB-06-...-SD / SWB-Exd  
 Weight: 3.9 kg

