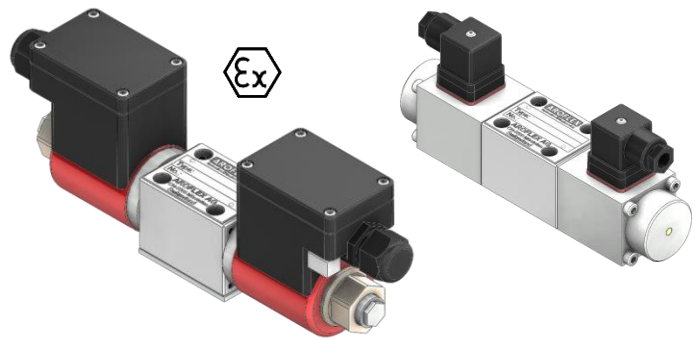


- **direct operated**
- $Q_{max} = 32 \text{ l/min}$
- $P_{max}$  in P, A and B = **315 bar**
- $P_{max}$  in T = **160 bar**



## Description

The proportional valves are used to control direction and flow in hydraulic systems. The applications of these valves ensure any motion sequences at low cost.

The PVD valve is a directly controlled spool valve, actuated by proportional solenoids, in five chamber design. The flow rate is proportional to the solenoid current and partly load-compensated.

## Application

Examples are acceleration and deceleration movements which are difficult to realize with common hydraulic components. Furthermore with these valves, electric remote controls with manual potentiometer could easily be done.

When large control range and optimal load compensation is requested we recommend the AROFLEX-proportional directional control valve PVS.

## Technical Data

General Specifications	PVD...14	PVD...24	PVD...32	PVD...14-Exm	PVD...14-Exd
Description:	spool valve, direct operated				
Mounting position:	longitudinal axis horizontal (vertical only after consulting the manufacturer)				
Nominal size:	NG6, DIN 24340 A 06, ISO 4401-03, Cetop 3				

Solenoid coil	24VDC	24VDC	24VDC	Exm	Exd
Explosion protection marking:	none	none	none	Ex II 2 G Ex emb II T4	Ex 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° ... + 50°C			- 20° ... + 40°C	- 20° ... + 60°C
Rated voltage:	24 VDC <sup>1</sup>	24 VDC <sup>1</sup>	24 VDC <sup>1</sup>	24 VDC	24 VDC
Current range:	0 - 0.68 A	0 - 0.9 A		0 - 0.7 A*	0 - 0.58 A*
Rated power:	16 W	21.6 W		17 W	14 W
Operating time:	100 %				
Protection class:	IP65 acc. to EN 60 529				
Connection:	Plug connection ISO 4400/DIN 43650 (2P+E)			Terminal box	Terminal box with thread M20x1.5
Amplifier modul:	please ask for datasheets				

### Safety instructions for Exm and Exd

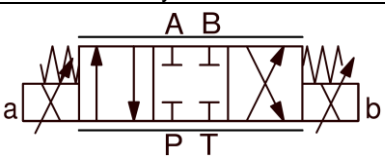
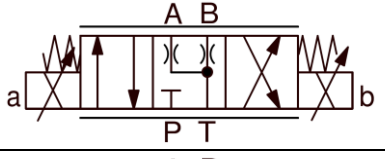
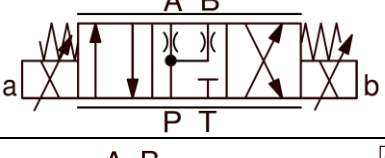
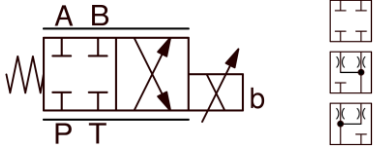
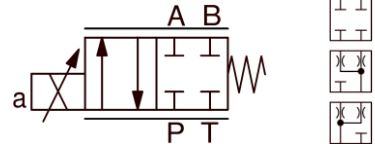
The solenoid coils must only be mounted on those valves assigned to. It is essential to read the solenoids operating instructions. \*It must be ensured to remain within the rated voltage and power, with higher temperatures it's not possible to utilise the full current range.

Hydraulic Specifications					
Max. volume flow:	14 l/min <sup>2</sup>	28 l/min <sup>2</sup>	32 l/min	14 l/min <sup>2</sup>	14 l/min <sup>2</sup>
Min. volume flow:	0.5 l/min	0.8 l/min	0.8 l/min	0.5 l/min	0.5 l/min
Max. pressure:	P, A and B 315 bar, T 160 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: 10 µm or better				
Hysteresis:	appr. 3% at optimal dither signal				

<sup>1</sup> valves with standard coils are available with 12V DC too.

<sup>2</sup> The maximal volume flow is adjustable to customer requirements, thereby you will have the optimal resolution for your control range.

**Overview**

Symbols	Description	Design
	PVD-06-2-...-N	4/3 way function spool type N
	PVD-06-2-...-D	4/3 way function spool type D
	PVD-06-2-...-T	4/3 way function spool type T
	PVD-06-1-...-NBZ PVD-06-1-...-DBZ PVD-06-1-...-TBZ	4/2 way function proportional solenoid b-side spool type N, D and T
	PVD-06-1-...-NAZ PVD-06-1-...-DAZ PVD-06-1-...-TAZ	4/2 way function proportional solenoid a-side spool type N, D and T


➔ other functions on request.


**Type code**

PVD-06	-...	-...	/...	-...	-...
--------	------	------	------	------	------

**omit** = 24 VDC standard

**12 VDC** = 12 VDC

**Exm** =  II 2 G Ex emb II T4

**Exd** =  II 2 G Ex d IIC T4

**spool type and function according overview**

**omit** = without volume flow reducing

value in l/min for the required volume flow reduced to your control range

**nominal volume flow**

**14** = 14 l/min

**24** = 24 l/min

**32** = 32 l/min

**1** = 4/2 way function

**2** = 4/3 way function

**proportional directional valve NG 6**

**Ordering code (example):**

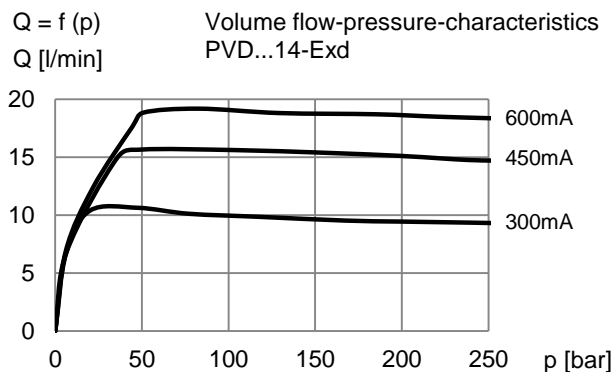
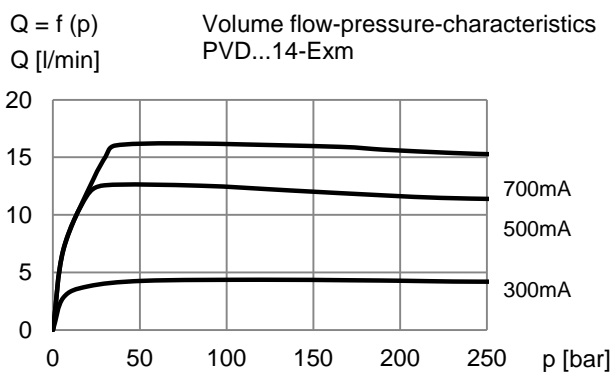
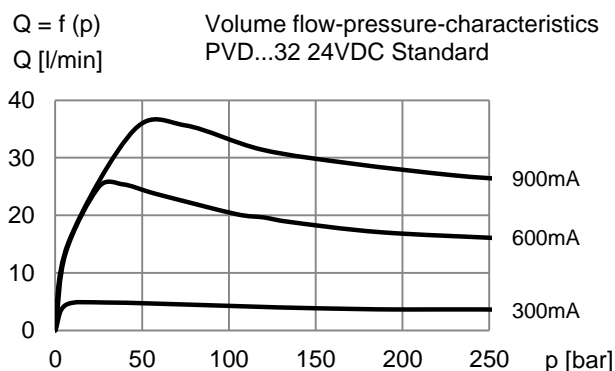
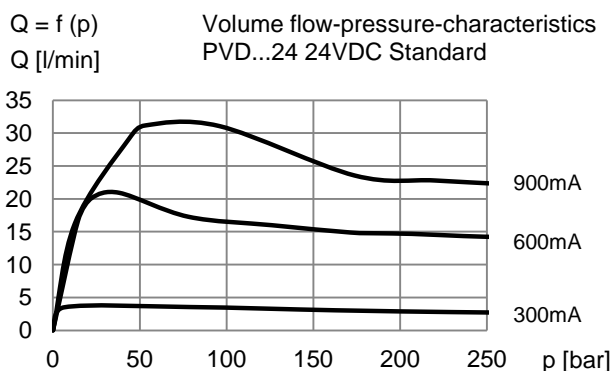
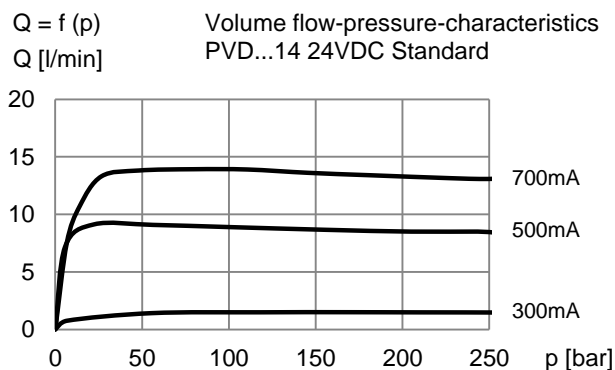
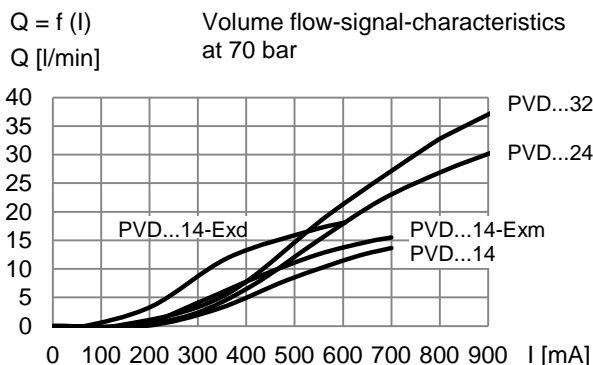
- Proportional directional valve NG6
- Spool type N
- Nominal volume flow 5 l/min
- Solenoid coils on both sides (4/3 way function)

**Type Code**

**PVD-06-2-14/5-N**

**Characteristics**

Measurement conditions:  
Hydraulic oil ISO VG 46; Viscosity 46 mm<sup>2</sup>/s  
Temperature 40...50 °C



**Dimensions**

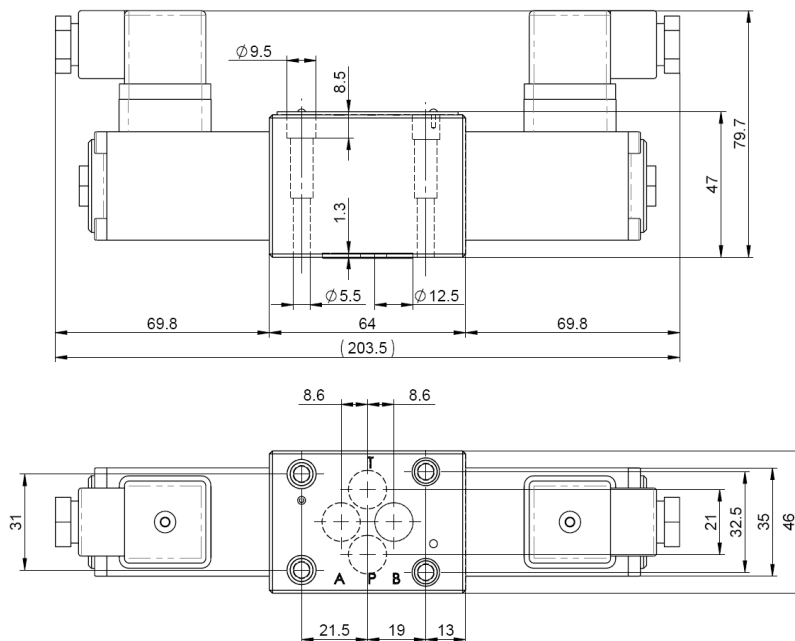
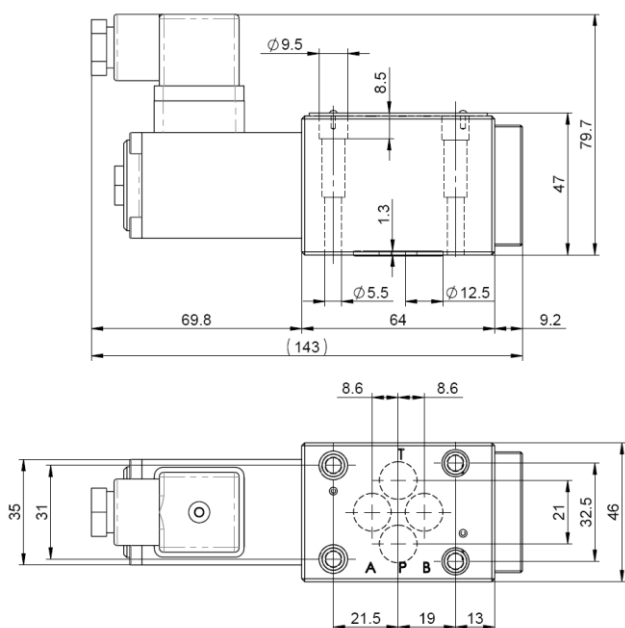
PVD-06-1-14-...AZ

pictured: proportional solenoid a-side

Weight: 1.6 kg

PVD-06-2-14-...

Weight: 1.9 kg



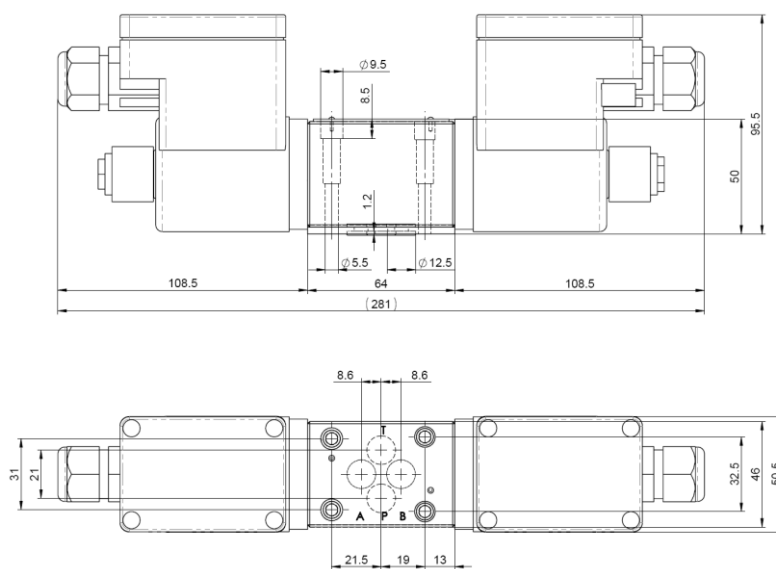
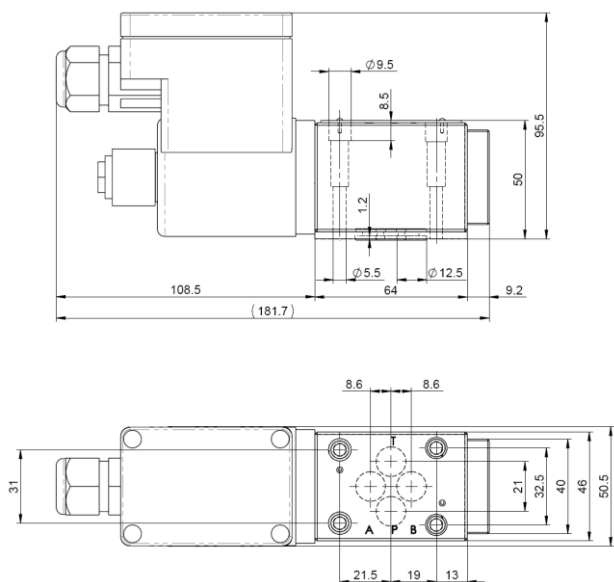
PVD-06-1-14-...AZ-Exm

pictured: proportional solenoid a-side

Weight: 2.1 kg

PVD-06-2-14-...-Exm

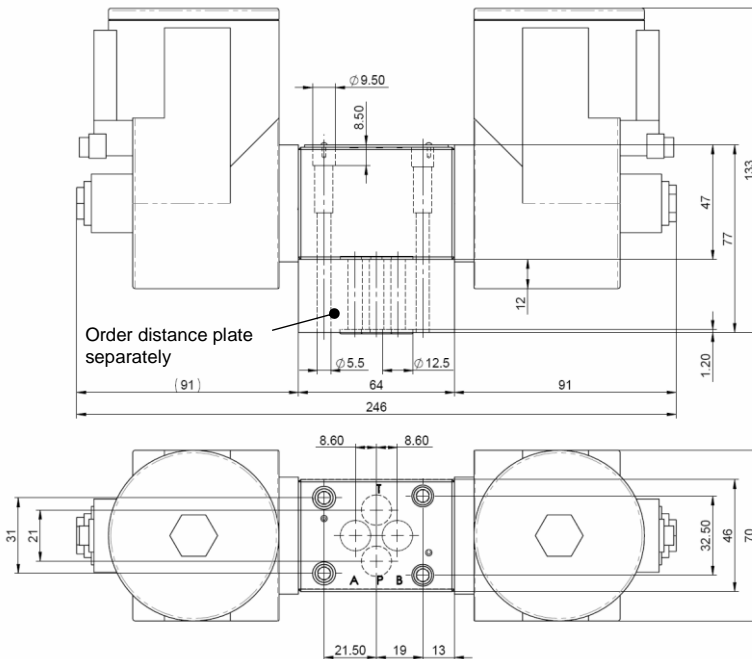
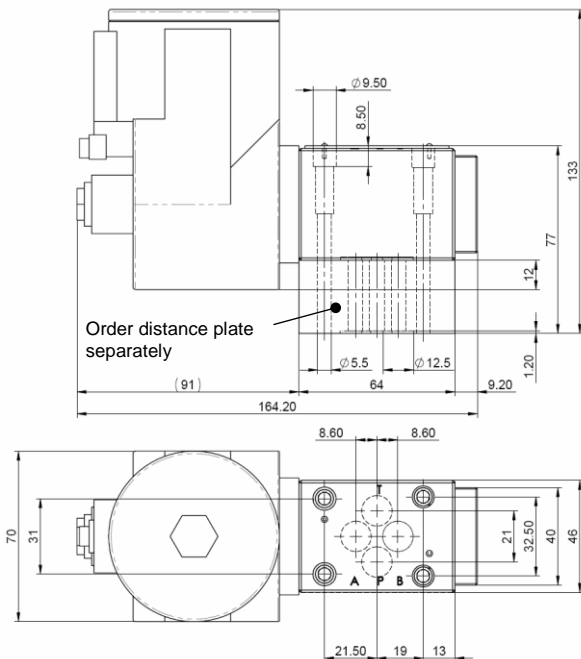
Weight: 2.8 kg



# Proportional directional valve NG6 PVD-06

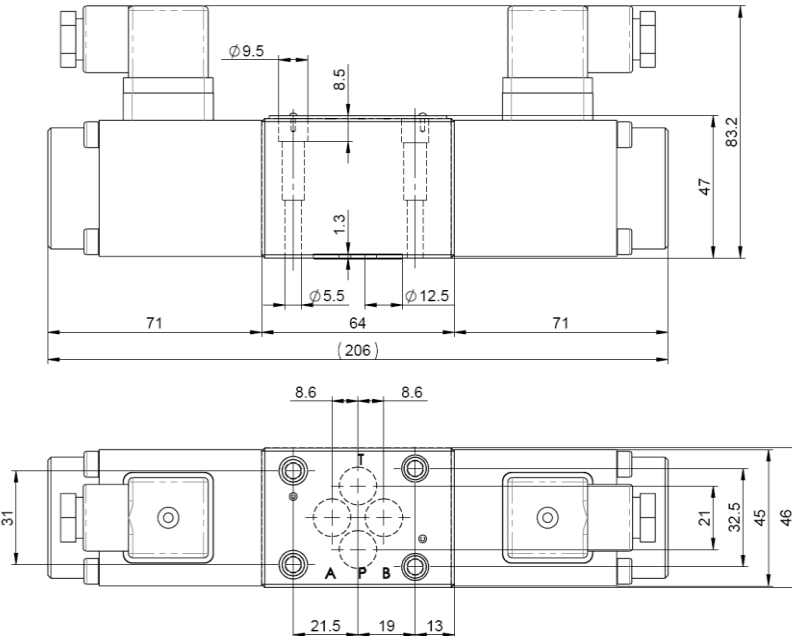
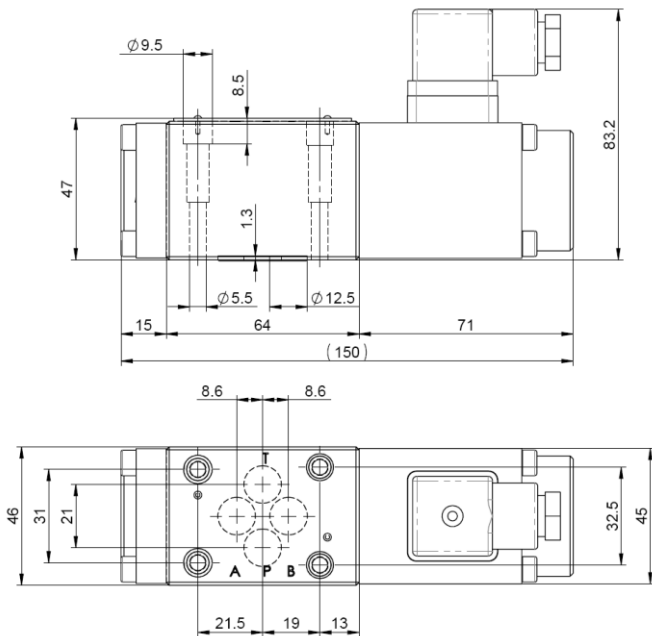
PVD-06-1-14-...AZ-Exd  
pictured: proportional solenoid a-side  
Weight: 3.2 kg

PVD-06-2-14-...-Exd  
Weight: 3.9 kg



PVD-06-1-24-...BZ  
pictured: proportional solenoid b-side  
Weight: 2 kg

PVD-06-2-24-...  
Weight: 2.7 kg



**Proportional directional valve NG6  
PVD-06**

PVD-06-2-32-N  
Weight: 2.6 kg

