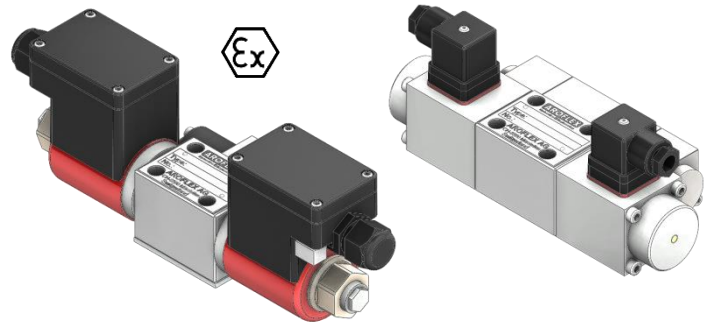


- direct operated, pressure compensated
- $Q_{max} = 17 \text{ l/min}$
- $p_{max}$  in P, A and B = 315 bar
- $p_{max}$  in T = 160 bar



## 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 PVS 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 remains constant with varying pressure. The counterbalance effect ensures that load does not go out of control.

The large flow range is achieved by a variable orifice, which changes proportional to the pressure drop. The sliding spool orifice is in the side body.

## Application

Examples are acceleration and deceleration movements which are difficult to realize with common hydraulic components. PVS valves are characterized by their large flow range. Thereby they are particularly suitable for demanding tasks, e.g. feed control, robotic systems, handling operations, etc.

## Technical Data

General Specifications	PVS...5/5	PVS...3/17	PVS...5/5-Exm
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	12VDC	24VDC	12VDC	Exm
Explosion protection marking:	none		none		Ex II 2 G Ex emb II T4
Type:					2A52W
EC-type examination certificate:					PTB 01 ATEX 2129 X
Ambient temperature:	- 20° ... + 50°C		- 20° ... + 50°C		- 20° ... + 40°C
Rated voltage:	24 VDC	12 VDC	24 VDC	12 VDC	24 VDC
Current range:	0 - 0.68 A	0 - 1.25 A	0 - 0.9 A	0 - 1.78 A	0 - 0.7 A*
Rated power:	16 W	15 W	21.6 W	21 W	17 W
Operating time:	100 %				
Protection class:	IP65 acc. to EN 60 529				
Connection:	Plug connection ISO 4400/DIN 43650 (2P+E)				Terminal box
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 is not possible to utilise the full current range.

Hydraulic Specifications			
Max. volume flow:	5 l/min	17 l/min	5 l/min
Min. volume flow:	0.2 l/min**	0.3 l/min**	0.2 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: 10µm or better		
Hysteresis:	appr. 3% at optimal dither signal		

\*\*Lower flow rates are possible at optimal conditions.

**Overview**

Symbols	Description	Design
	PVS-06-2-...-N	4/3 way function spool type N
	PVS-06-2-...-D	4/3 way function spool type D
	PVS-06-1-...-DB	Feed control with rapid reverse
	PVS-06-2-...-T	4/3 way function spool type T
	PVS-06-1-...-NBZ PVS-06-1-...-DBZ PVS-06-1-...-TBZ	4/2 way function proportional solenoid b-side spool type N, D and T
	PVS-06-1-...-NAZ PVS-06-1-...-DAZ PVS-06-1-...-TAZ	4/2 way function proportional solenoid a-side spool type N, D and T

➔ other functions on request.

**Type code**

PVS-06	-...	-...	-...	-...
				<p><b>omit</b> = 24 VDC standard  <b>12 VDC</b> = 12 VDC  <b>Exm</b> =  II 2 G Ex emb II T4</p> <p><b>spool type and function according overview</b></p> <p><b>nominal volume flow</b>  <b>5/5</b> = 5 l/min  <b>3/17</b> = 17 l/min</p> <p><b>1</b> = 4/2 way function  <b>2</b> = 4/3 way function</p> <p><b>proportional directional valve, pressure compensated NG 6</b></p>

**Ordering code (example):**

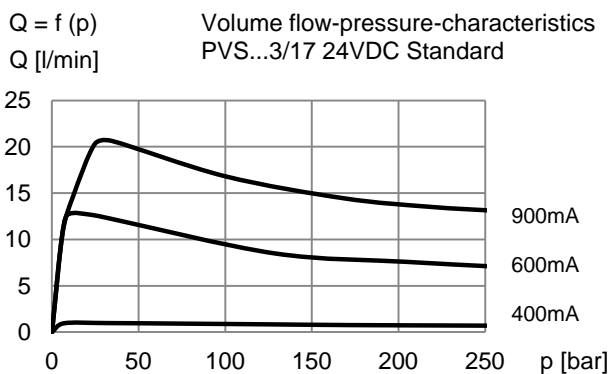
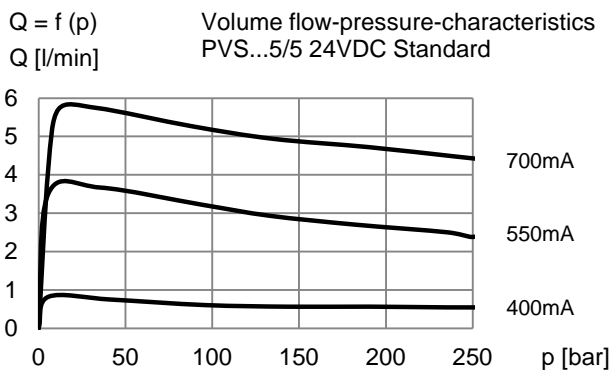
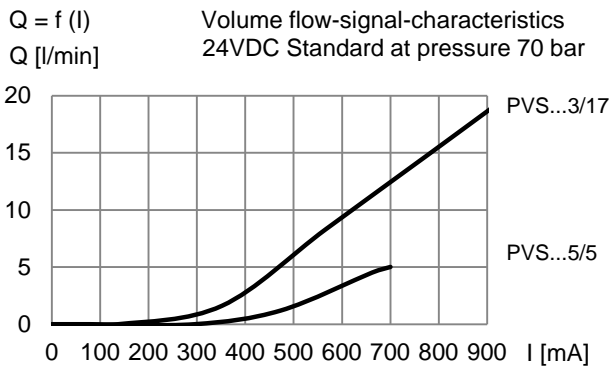
- Proportional directional valve, pressure compensated NG6
- Spool type T
- Nominal volume flow 17 l/min
- Solenoid coils on both sides (4/3 way function)

**Type Code**

**PVS-06-2-3/17-T**

**Characteristics**

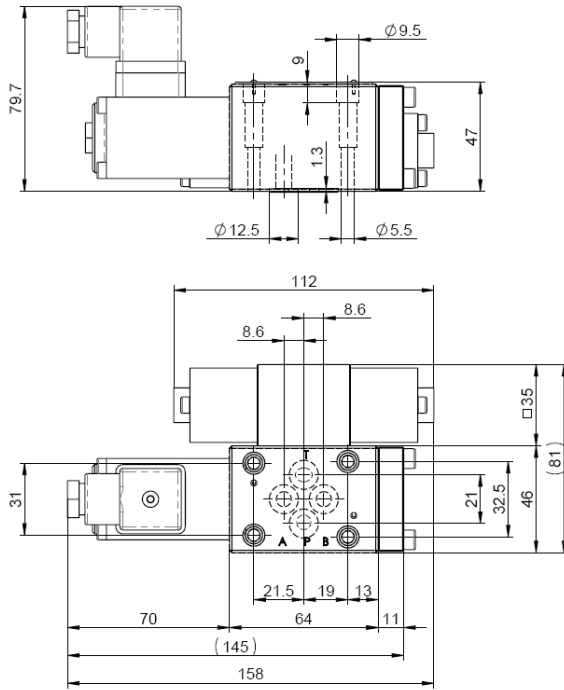
Measurement conditions:  
Hydraulic oil ISO VG 46; Viscosity 46 mm<sup>2</sup>/s  
Temperature 40...50 °C



**Dimensions**

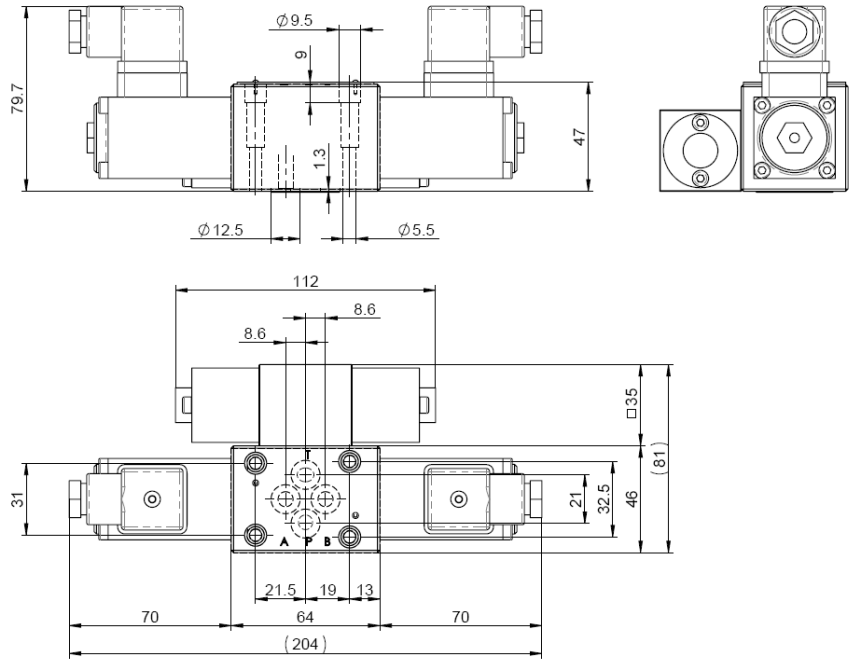
PVS-06-1-5/5-...-...AZ

pictured: proportional solenoid a-side  
Weight: 2.2 kg



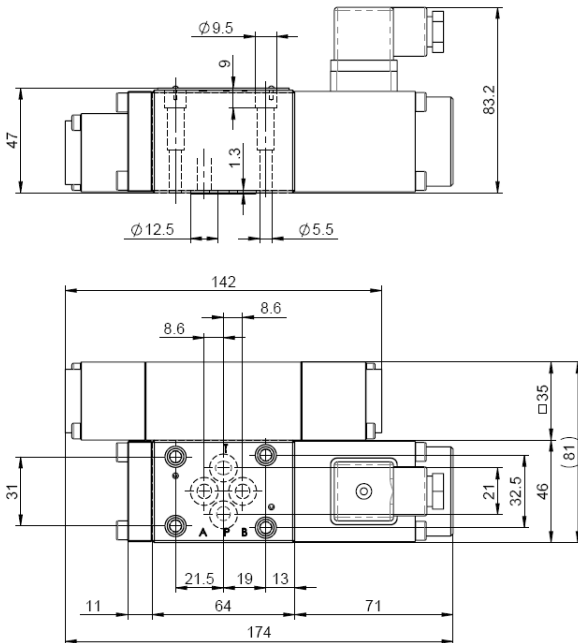
PVS-06-2-5/5-...

Weight: 2.5 kg



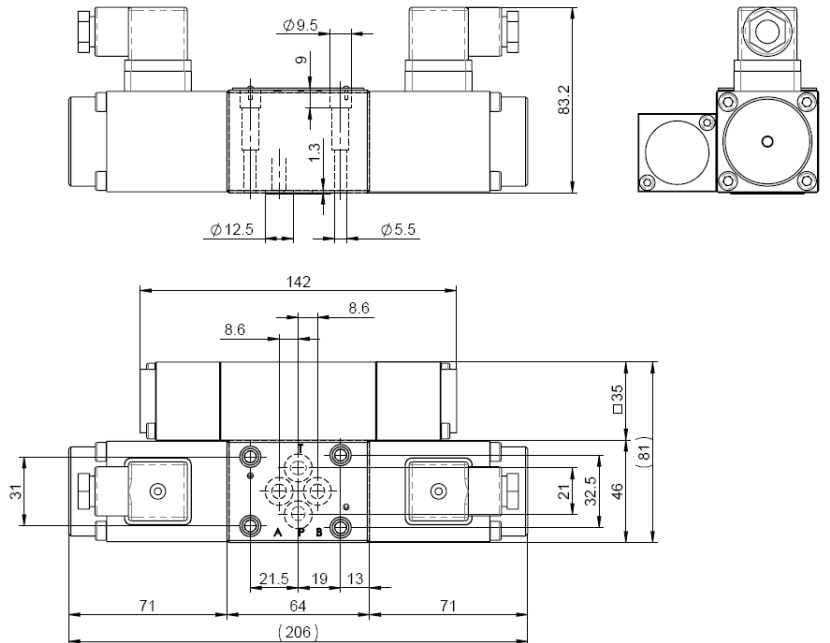
PVS-06-1-3/17-...-...BZ

pictured: proportional solenoid b-side  
Weight: 3.1 kg



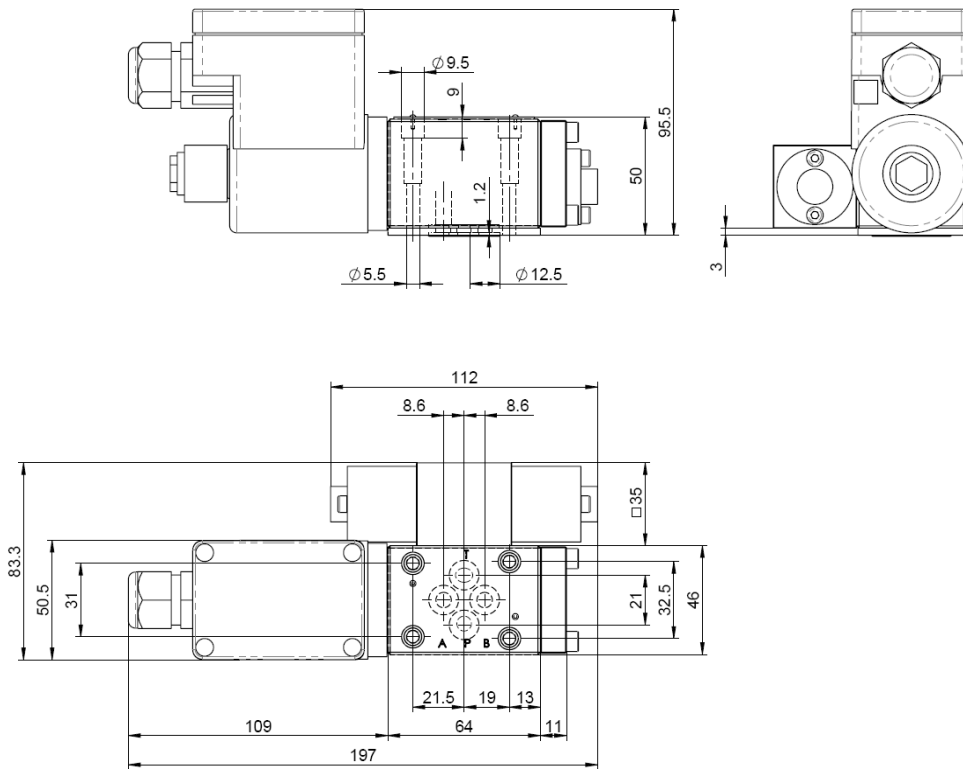
PVS-06-2-3/17-...

Weight: 3.8 kg



**Proportional directional valve NG6  
PVS-06**

PVS-06-1-5/5-...-...AZ-Exm  
pictured: proportional solenoid a-side  
Weight: 2.6 kg



PVS-06-2-5/5-...-Exm  
Weight: 3.4 kg

