

Proportional pressure control valve, solenoid operated, pilot-operated Plate mounted **VP-PDRP6**

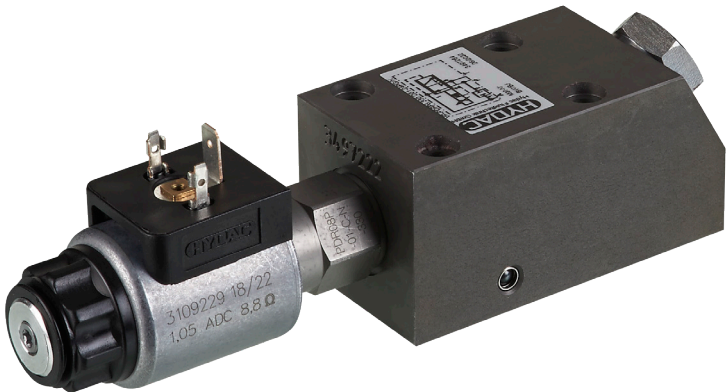
DESCRIPTION

HYDAC VP-PDRP6-series proportional pressure control valves are pilot-operated 3-way spool valves with output-side pressure controllers. The oil flows from P to A and the pressure, which corresponds to the electronically set target value, builds at A. When the pressure at A exceeds this set value, the valve reduces the pressure downstream of T.

This means that the pressure at A will be limited to the specified value (maximum pressure limitation).

CHARACTERISTICS

- Interface to DIN 24340 form A6 | ISO 4401-03-02-0-05 (CETOP3), nominal size 6
- Proportional pressure control valve with pressure reducer and limiter
- Electronically controlled e.g. via EHCD module



Size 6
up to 60 l/min
up to 350 bar

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TYPENSCHLÜSSEL

VP-PDRP 6 087 D01-24 PG IV

Designation

Proportional pressure control valve, pilot-operated

Nominal size (NG)

6

Pressure setting ranges

- 87 = 5 up to 60 bar
- 330 = 5 up to 230 bar
- 500 = 5 up to 350 bar

Type

D01 = standard

Nominal voltage

- 12 = 12 V DC
- 24 = 24 V DC

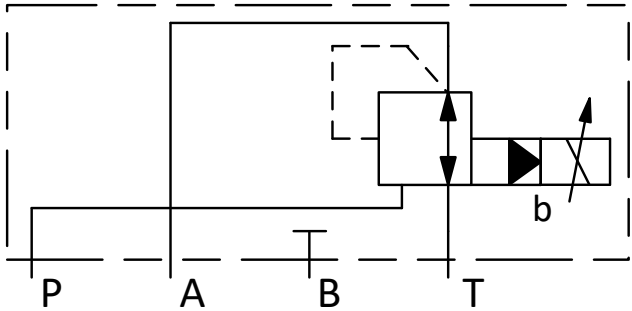
Further versions on request.

Electrical connection (type 40-1836)	Number of poles	Connection	Protection class
PG = design A acc. to DIN EN 175301-803	3-pole	radial	IP65
PL = two flying leads 0.75 mm² x 457 mm (18")	2-pole	radial	IP65 / IP67
PN = DEUTSCH plug connector DT04-2P	2-pole	axial	IP67 / IP69
PT = AMP Junior Timer	2-pole	radial	IP65 / IP67
PU = AMP Junior Timer	2-pole	axial	IP65 / IP67

Sealing material

- V = FKM (standard)
- N = NBR

SYMBOL



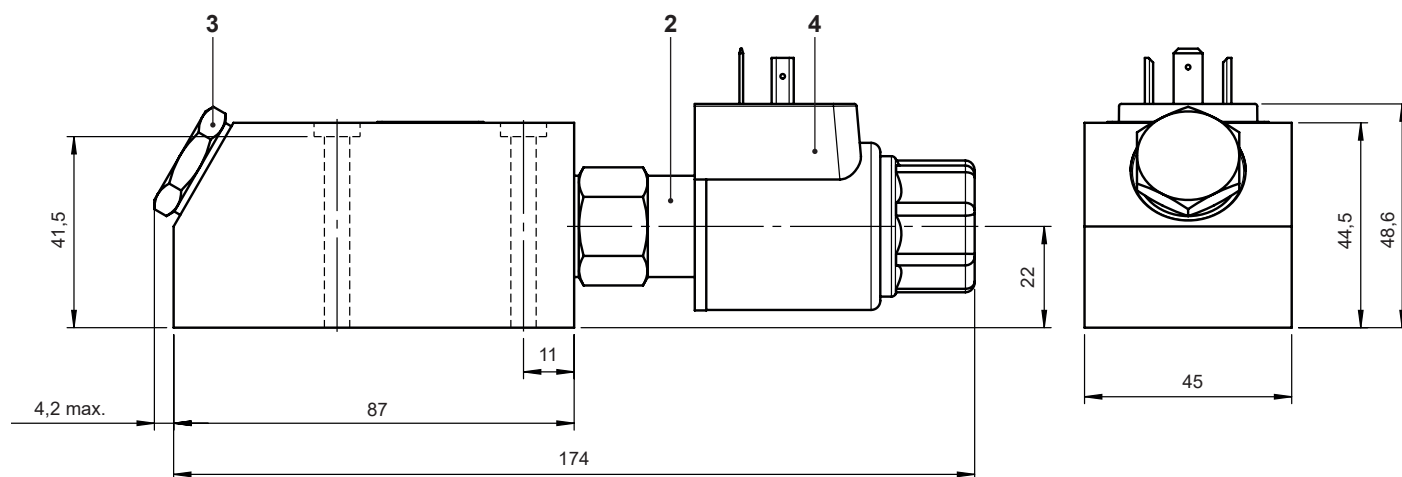
FUNCTION

A detailed description of the valve function is provided in brochure PDR08P (DE 5.990.1).

Notice:

Vent the system and valve during initial start-up.

SECTION VIEW



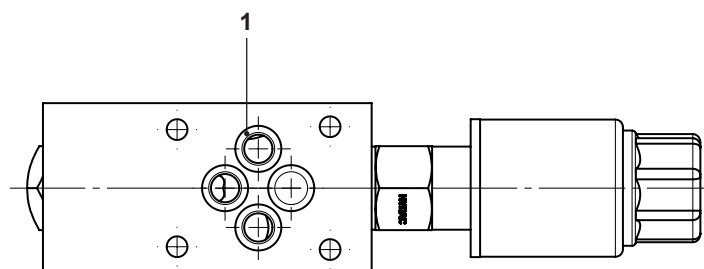
1 Housing with seals | 4 x O-Ring 9,25 x 1,78 FPM

2 Proportional pressure control valve with coils

3 Screw

4 DIN Plug acc. to EN 175301-803 für Prop.-Coil

All dimensions in mm | Mounting screws not included in scope of delivery.



TECHNICAL DATA¹

General specifications

MTTF _D	150 - 1200 years, assessment according to DIN EN ISO 13849-1:2016; Table C.1, Confirmation of ISO 13849-2:2013; Tables C.1 and C.2	
Ambient temperature	-20 °C up to +50 °C	
Installation position	User-definable	
Weight	1.25 kg	
Material	Valve casing:	Steel
	Coil housing:	Steel
Surface coating	Valve casing:	Phosphate-plated
	Coil housing:	ZnNi coating

Hydraulic specifications

Operating pressure	350 bar
Flow rate (Q _{max})	60 l/min
Min. control pressure A	5 bar
Pressure fluid	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Temperature range of operating fluid	-20 °C up to +80 °C
Viscosity range	7.4 up to max. 400 mm ² /s
Permitted contamination level of operating fluid	ISO 4406 class 21/19/16 or better
Hysteresis in relation to p _{max} of pressure setting	2 – 4%
Repeatability in relation to p _{max} of pressure setting	1.5 %
Sealing material	FKM (standard), NBR

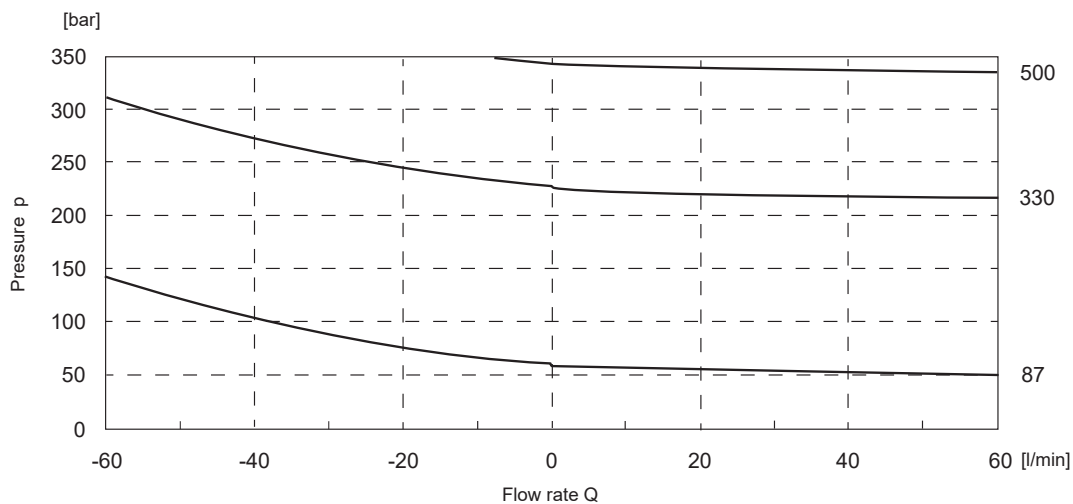
Electrical characteristics

Type of voltage	DC voltage	
Nominal current	12 V DC coil	24 V DC coil
Resistance at 20 °C	2.2 Ω at 12 V	8.8 Ω at 24 V
Voltage tolerance	±10 %	
Pilot current	0 - 2100 mA	0 - 1050 mA
Dither frequency	160 up to 250 Hz	
Duty cycle	100 % CD (continuous duty)	
Protection class	IP65 (if contact box is mounted correctly)	

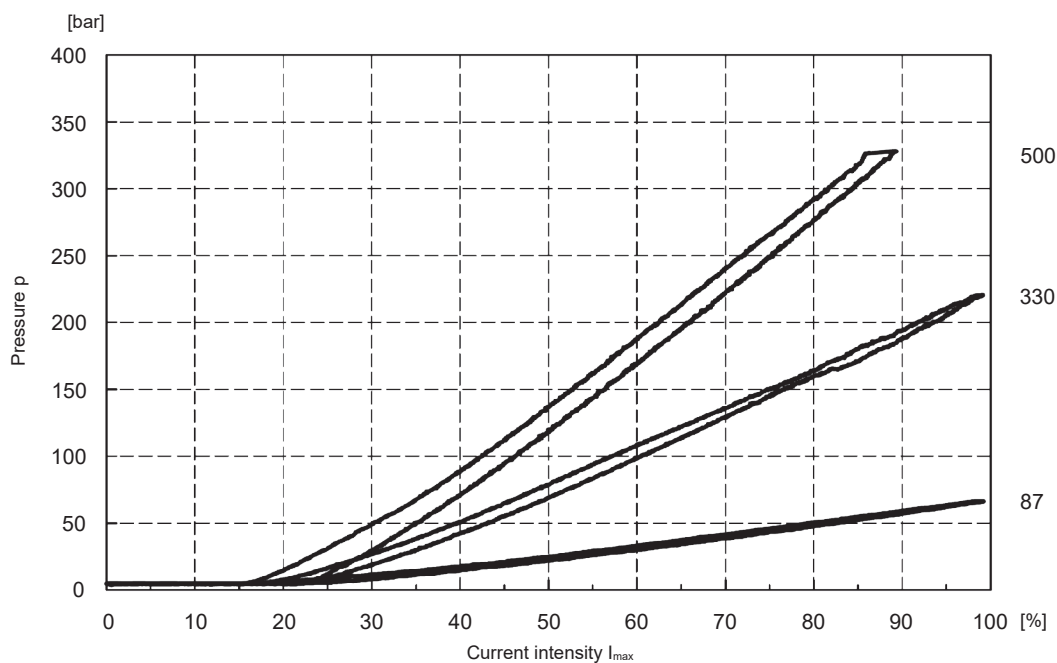
¹ See "Conditions and Instructions for Valves" in brochure 53.000.

TYPICAL PERFORMANCE

p/Q characteristics measured at $v = 33 \text{ mm}^2/\text{s}$, $T_{\text{Ol}} = 46 \text{ }^\circ\text{C}$, $I_{\text{max}} 100 \%$

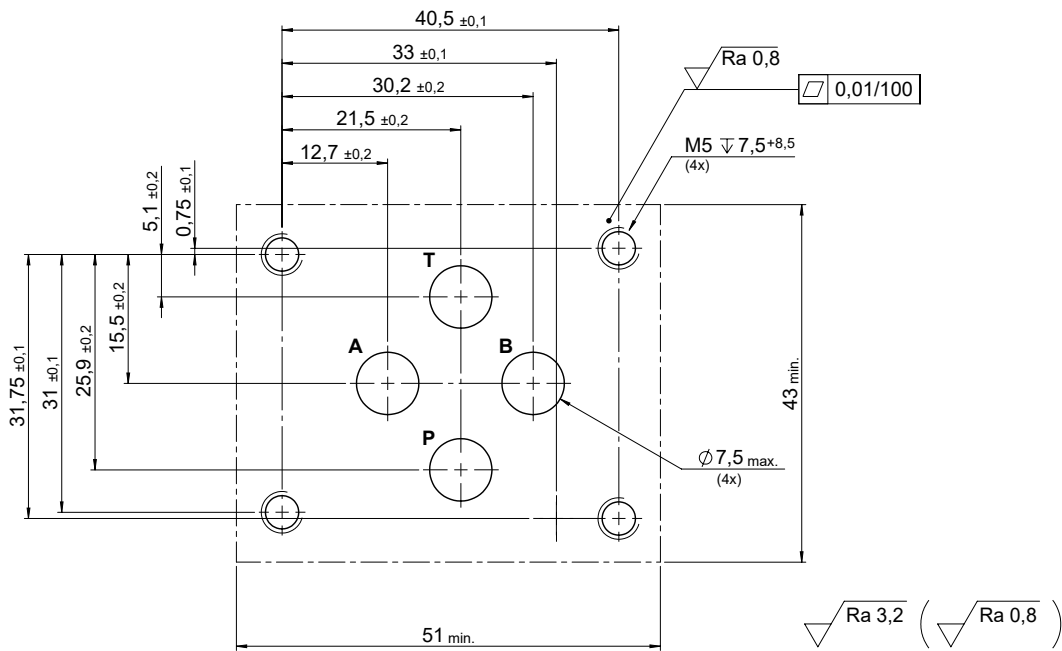


p/I characteristics measured at $v = 33 \text{ mm}^2/\text{s}$, $T_{\text{Ol}} = 46 \text{ }^\circ\text{C}$



DIMENSIONS

Interface to DIN 24340 form A6 | ISO 4401-03-02-0-05 (CETOP3)



Mounting screws: (not included in scope of delivery) | DIN EN ISO 4762 – M5x50 – 10.9
Tightening torque: 5 ^{+0,5} Nm | Torque acc. DIN EN ISO 6789 | Tool Typ II Klasse A oder B

ACCESSORIES

Standard models

Designation	Part no.
VP-PDRP6 87 D01-24PG/N	3497252
VP-PDRP6 87 D01-24PG/V	3604925
VP-PDRP6 87 D01-24PG/V UL V0 ¹⁾	4376147
VP-PDRP6 330 D01-24PG/N	3497254
VP-PDRP6 330 D01-24PG/V	3604924
VP-PDRP6 500 D01-24PG/N	3497266
VP-PDRP6 500 D01-24PG/V	3604922
VP-PDRP6 500 D01-24PG/V UL V0 ¹⁾	4373635

¹⁾ UL V0 = UL certification of coils with flame rating V-0 in acc. with UL94.
Further versions on request.

Spare parts, seal kits

Designation	Material	Code	Part no.
Seal kits (4-part set)	NBR	9.25 x 1.78 80 Sh	3492432
Seal kits (4-part set)	FKM	9.25 x 1.78 80 Sh	3120269

Accessories

Designation	Code	Part no.
Mounting screws	Cylinder screws with internal hexagon ISO4762 - M5X50-10.9	4312231
Solenoid coils	Coil 12PG-2.2 -40-1836	3109230
	Coil 24PG-8.8 -40-1836	3109229

NOTE

The information in this brochure relates to the operating conditions and fields of application described. For applications and operating conditions not described, please contact the relevant technical departments.
Subject to technical modifications.
Documents are only valid if they have been obtained via the website and are up-to-date.

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