



2.7

HPPRV-04 TYPE

Electric Proportional Pressure Reducing Valve

Size	04
Rated pressure(bar)	P: 350
	T: 30
Rated flow(L/min)	4

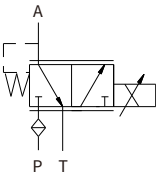
Features

- Quick response
- Compact size
- Oil-immersed DC solenoid

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Symbol



Description

High pressure, direct-acting control, cartridge structure, suitable for a special design of mobile machinery.

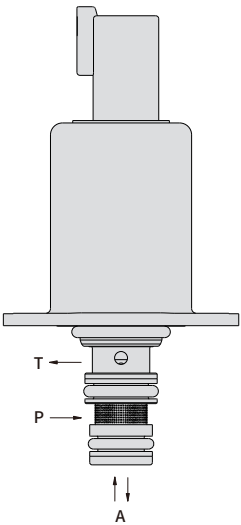
Operation

The HPPRV-04 electric proportional decompression value conducts proportional control of the pressure at control port A according to the magnitude of the current flowing into the electromagnet. The pressure at port A bears no relation to the pressure at port P.

When there is no current acting on the electromagnet, oil supply port P is closed, and control port A is connected to oil drain port T.

When the current acts on the electromagnet, oil supply port P is connected to the control port A, and oil drain port T is closed. The pressure at port A increases proportionally as the control current rises.

After the current is stabilized, if the pressure at control port A continues to rise under the action of an external force, oil supply port P is closed again. At the same time, port A is temporarily connected with oil drain port T, and not until the pressure at port A decreases to a reasonable range does P get reconnected to A, with T in closed state.



Ordering code

HPPRV-04-S-20-D-24-F-10									
Type							Serial number		
Size: 04							Seal material:		
Current range							F = FKM		
0-1500mA							Voltage, 12V		
0-750mA							24V		
Regulating pressure range:							Connector:		
							D= Deutsch connector DT04-2P		
							J= AMP Junior Timer		

Technical Data

General

Weight	0.22 kg
Mounting position (recommended)	Optional, valve sleeve vertically downward
MTTF _d - value	150 years
Fluid temperature range	-30 to 80°C

Hydraulic

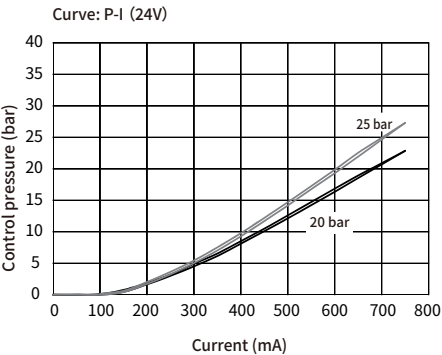
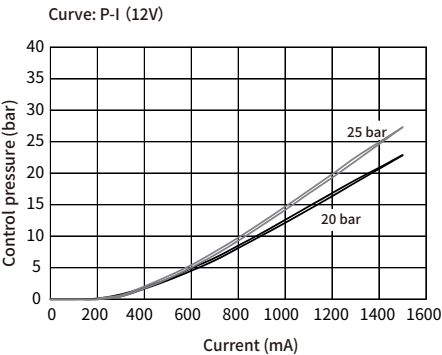
Max. pressure pump	$P_p = 350\text{bar}$
Max. pressure tank	$P_t = 30\text{bar}$
Max. working pressure	$P_A = 32\text{bar}$
Hysteresis(w/ PWM)	$< 0.4\text{ bar (pA=20)}; < 0.5\text{ bar (pA=25)}$
Maximum permitted degree of the contamination of hydraulic fluid cleanliness class	NAS1638 Class 9 and ISO4406 Class 20/18/15
Hydraulic fluid	Mineral oil according to DIN 51524
Hydraulic fluid temperature range	-30 to 105°C
Leakage	$< 70\text{mL/min (de-energized)}$
	$< 220\text{mL/min (energized)}$
Filterscreen size	200 μm (Port P)

Electrical

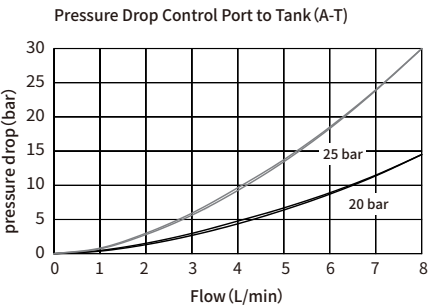
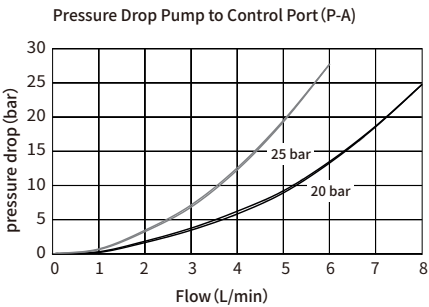
Operating voltage (amplifier)	12 V	24 V
Max. control current	1500mA	750mA
Resistance at 20° C	4.8 Ω	24 Ω
Type of control	Current control PWM 100-200 Hz recommended	
Connector	Deutsch Connector DT04-2P AMP Junior Timer	
Protection Class	IP6K6/IPX9K	
Response time	$t_{on} < 50\text{ms}$	
	$t_{off} < 50\text{ms}$	

Characteristic curves (using HLP46, T=50°C)

• Current VS. Pressure characteristics



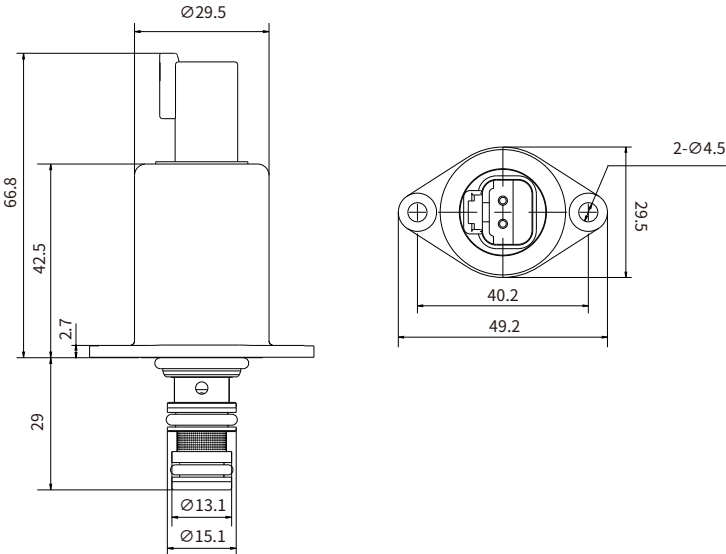
• Flow characteristics



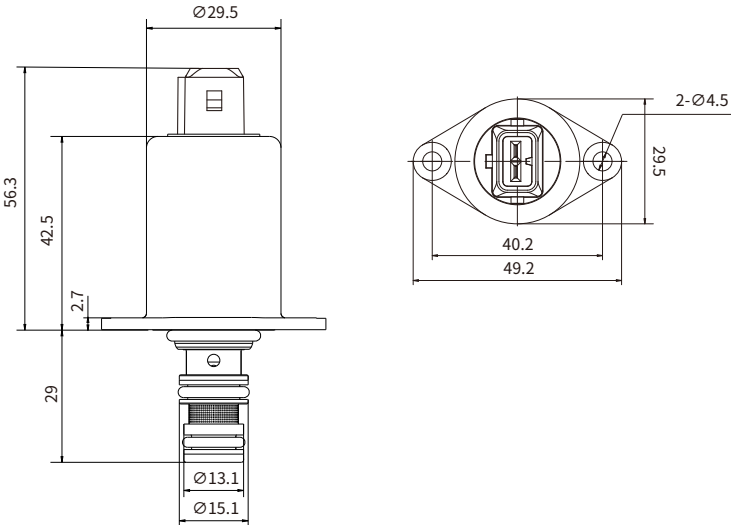
Unit dimensions

(Dimensions in mm)

• Deutsch connector



• AMP Junior Connector



Cavity dimensions

(Dimensions in mm)

