



4.2.2

PPRV-05 TYPE

ELECTRIC PROPORTIONAL PRESSURE REDUCING VALVE

Size	05
Rated pressure(bar)	60
Set pressure(bar)	32
Rated flow(L/min)	10



04

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Ordering code

PPRV - 05 - L - 30 - D 24 - F - 10

Type

Serial number

Size: 05

Seal material:

F =

FKM

Current range

0 - 1500mA

= L

0-750mA

= S

Voltage,

24V

12V

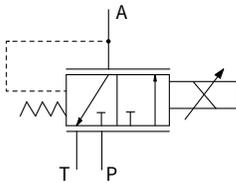
Regulating pressure range:

30 bar

Connector:

Deutsch connector DT04-2P

Symbol:



Description

Direct-acting control, cartridge structure, suitable for a special design of mobile machinery.

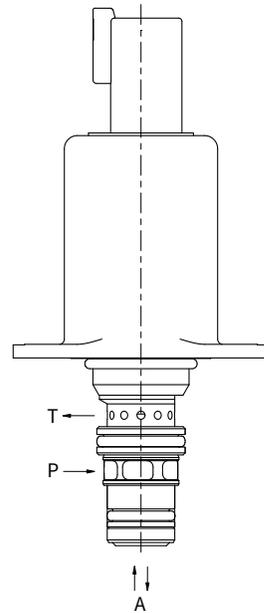
Operation

The PPRV-05 electric proportional decompression valve 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.



Features

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

Technical data

General

Weight	0.235Kg
Mounting position (recommended)	Optional, valve sleeve vertically downward
MTTF _d - value	150 years
Fluid temperature range	-30 to 80°C

Hydraulic

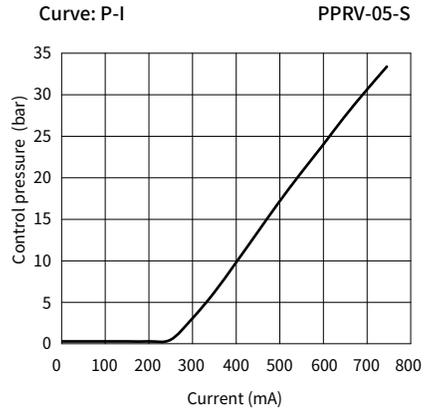
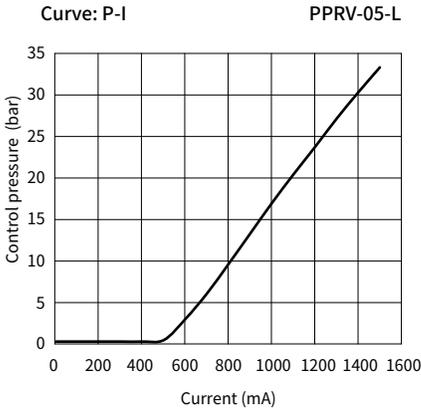
Max. pressure pump	$P_p = 60\text{bar}$
Max. pressure tank	$P_T = 30\text{bar}$
Max. working pressure	$P_A = 32\text{bar}$
Hysteresis	< 4 % of the nominal pressure at 180 Hz PWM signal
Maximum permitted degree of the contamination of hydraulic fluid cleanliness class	NAS1638 Class 9 and ISO4406 Class 20/18/15
Hydraulic fluid	Mineral oil according to DIN 51524
Hydraulic fluid temperature range	-30 to 105°C
Leakage	< 70mL/min (de-energized)
	< 300mL/min (energized)
Filterscreen size	140 μm (Port P)

Electrical

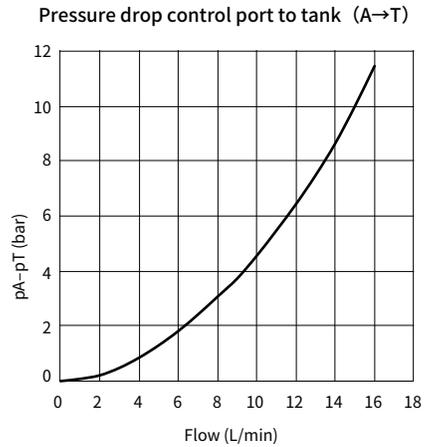
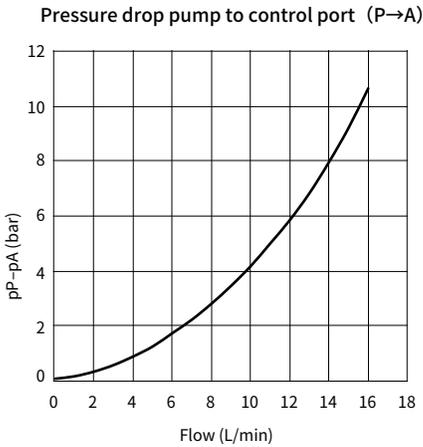
Operating voltage (amplifier)	12 V	24 V	24 V
Max. control current	1500mA	1300mA	750mA
Resistance at 20° C	4.8 Ω	9 Ω	24 Ω
Type of control	Current control PWM 130-200 Hz recommended		
Connector	Deutsch Connector DT04-2P		
Protection Class	IP6K6/IPX9K		
Response time	$t_{on} < 40\text{ms}$		
	$t_{off} < 40\text{ms}$		

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

• Current VS. Pressure characteristics



• Flow characteristics



Unit dimensions

(dimensions in mm)

