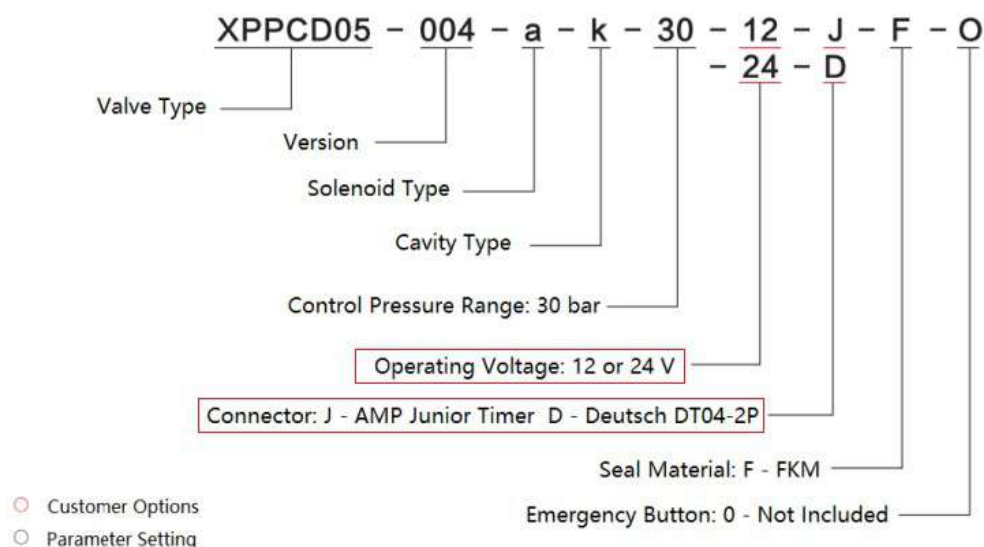




Hydraulic Parameters	
Maximum Supply Pressure	Pp = 50 bar
Maximum Return Pressure	PT = 30 bar
Maximum Working Pressure	PA = 30 bar
Hysteresis	< 3% of rated control pressure (recommended control method)
Maximum Allowable Fluid Contamination Level	ISO 4406 20/18
Working Medium	Mineral oil, compliant with DIN 51524 standard
Operating Fluid Temperature Range	-30 ° C to 105 ° C
Internal Leakage	< 0.03 L/min (de-energized) < 0.25 L/min (energized)
Filter Screen Specification	140 μm (Port P)

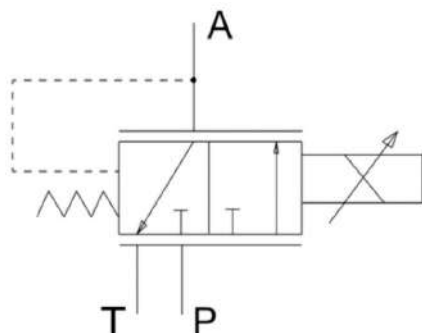
Electrical Parameters		
Operating Voltage	12 V	24 V
Operating Current	0 – 1500 mA	0 – 750 mA
Coil Resistance at 20 °C	4.72 Ω ±5%	8.15 Ω ±5% or 20.8 Ω ±5%
Control Method	Current control: PWM drive frequency: 100 Hz + oscillation signal frequency: 120 Hz, amplitude: 200 mA peak (recommended)	
Connector	AMP Junior Timer, Deutsch DT04-2P	
Protection Rating	Up to IP6K6 / IPX9K	
Response Time (ms)	t on < 40 ms (pA = 0% → 90%) t off < 40 ms (pA = 100% → 10%)	

*Test conditions for related data: Pp = 41 bar, oil viscosity = 32 cSt.

Product Overview

The XPPCD05 is a direct-acting proportional pressure control valve designed for mobile hydraulic pilot control. It delivers precise pressure regulation via PWM signal, with low hysteresis (<3%), fast response (<40 ms) and ultra-low leakage. Supporting 12V/24V DC and rated up to 50 bar, it features IP6K6/IPX7/IPX9K protection and a wide operating temperature range for harsh environments. Compact (235 g) and mountable in any orientation, it is widely used in excavators, loaders, cranes, agricultural machinery and EHA 2.0 electro-hydraulic actuator systems.

Hydraulic schematic

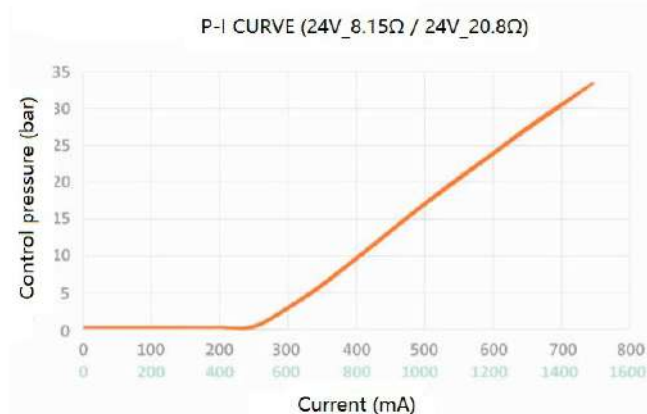
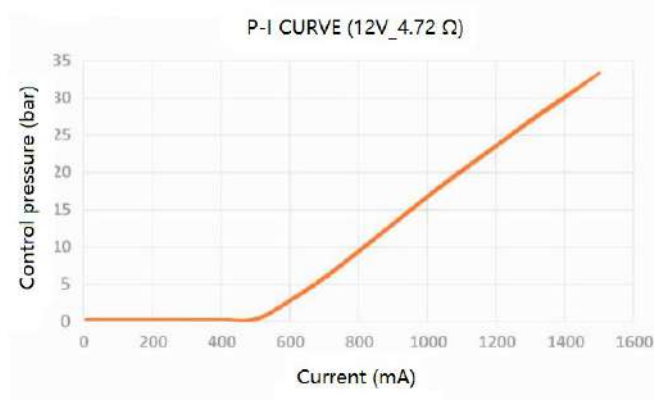


Operating Principle

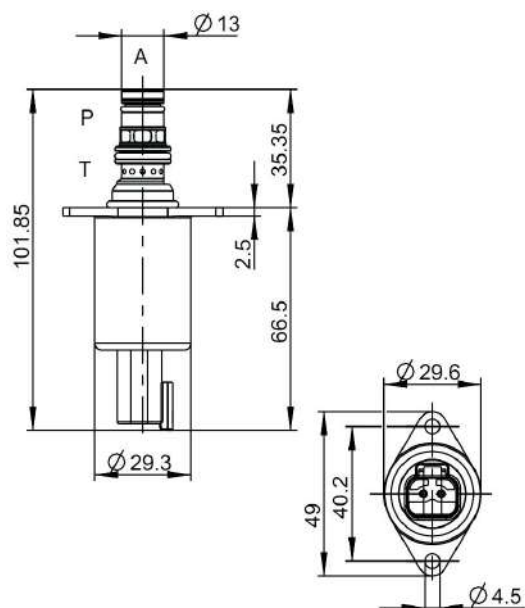
Control Type	2-position, 3-way	
De-energized	Flow from Port A to Port T	
Energized	Flow from Port P to Port A	

When pressure at Port A exceeds the maximum pressure, relief occurs through Port T.

P-I (average characteristic)



Outline dimensions with Deutsch connector (Unit: mm)



Cavity dimensions (Unit: mm)

