

Proportional Pressure Control Valve

PPCD09–NG PPRV HF (preliminary Nov. 2020)



PRODUCT CLASSIFICATION

Proportional valves

Directional valves

Smart products

Special designs

Name Max volume flow @ 6 bar dp

Name	Max volume flow @ 6 bar dp	
PPCD 03	1,25 l/min	Direct controlled
PPCD 04	2,5–5 l/min	
PPCD 05	10 l/min	
PPCD 06	15 l/min	
PPCD 08	20 l/min	
PPCD 09	30 l/min	
PPCP 09	35 l/min	Pilot operated
PPCP 13	72 l/min	

HYDRAULIC DATA

Max pressure pump	$P_p = 50$ bar
Max pressure tank	$P_T = 30$ bar
Max pressure work	$P_A = 22$ bar
Hysteresis	< 3 % of the nominal pressure at recommended type of control
Contamination level	Min Filtration: 20/18/13 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range fluid	-30°C to +100°C
Leakage (internal)	< 0,05l/min (de-energized) < 0,4 l/min (energized)
Filterscreen size	140 μ m (P-Port)

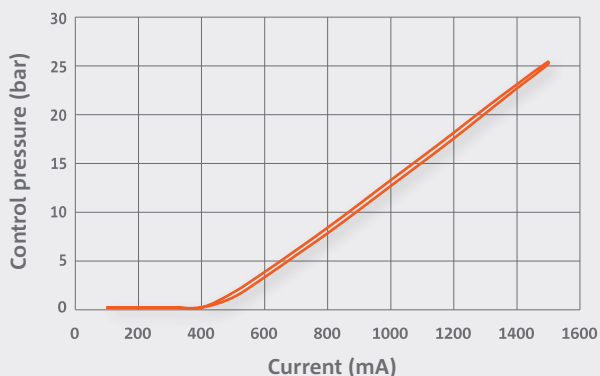
ELECTRICAL DATA

Voltage	12 V	24 V	
Max current	1500 mA	1400 mA	750 mA
Resistance	4,72 $\Omega \pm 5\%$	8,15 $\Omega \pm 5\%$	20,8 $\Omega \pm 5\%$
Type of control	PWM signal > 1000 Hz + superimposed dither 100 Hz (100 _{24V} /200 _{12V} mA peak to peak)		
Connector	Deutsch Connector DT04-2P		
Protection class	up to IP6K6 / IPX9K		
Switching time	$t_{on} < 40$ ms (pA = 0% to 90%) $t_{off} < 40$ ms (pA = 100% to 10%)		

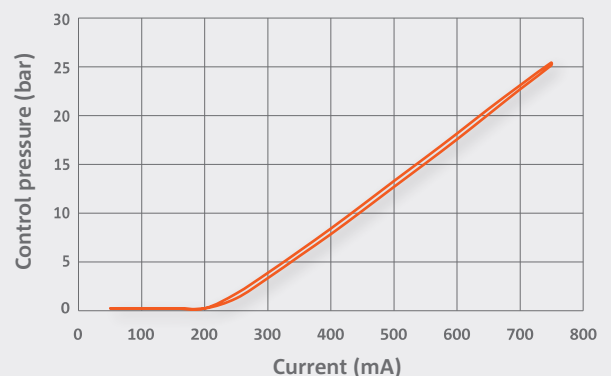
* The reported data are measured @ $P_p = 35$ bar and an oil viscosity of 32 cSt

CURRENT VS. PRESSURE

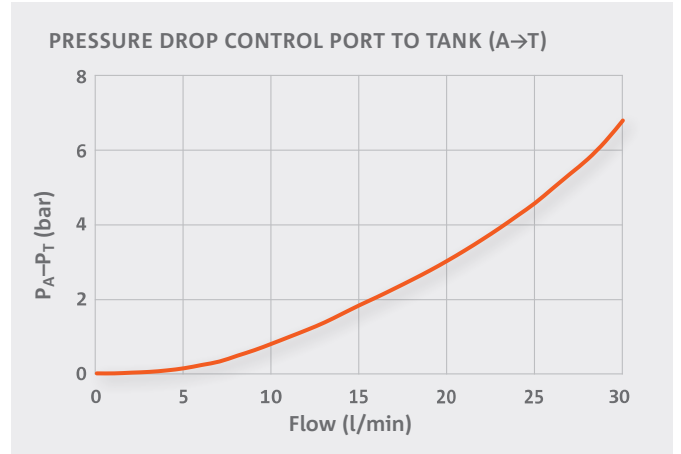
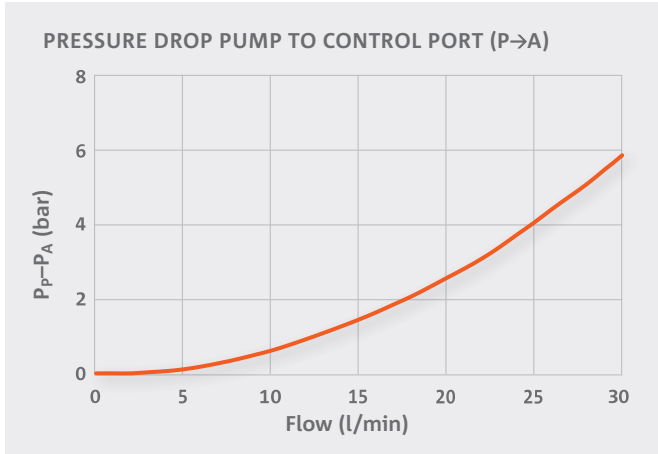
P-I CURVE (12 V)



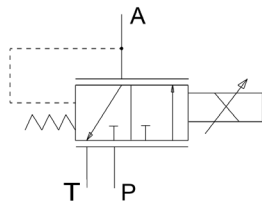
P-I CURVE (24 V)



FLOW CHARACTERISTICS



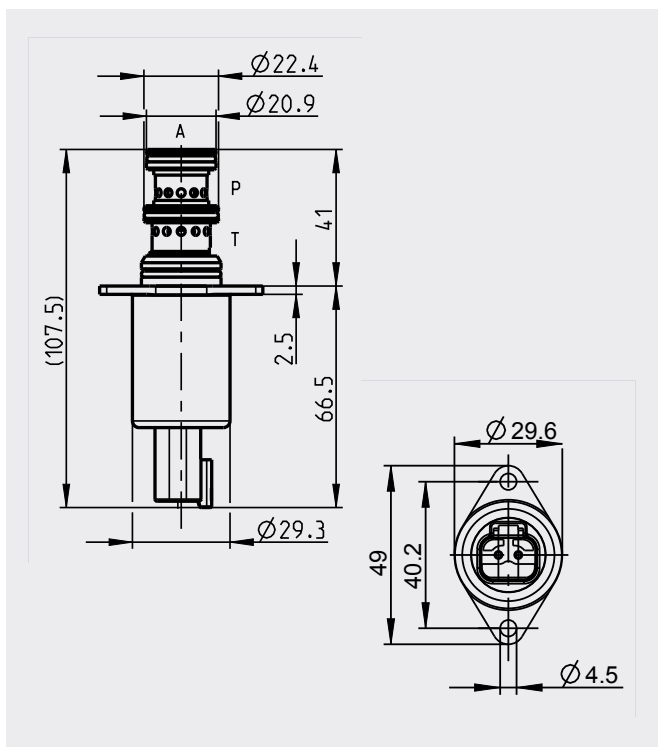
HYDRAULIC SCHEMATIC



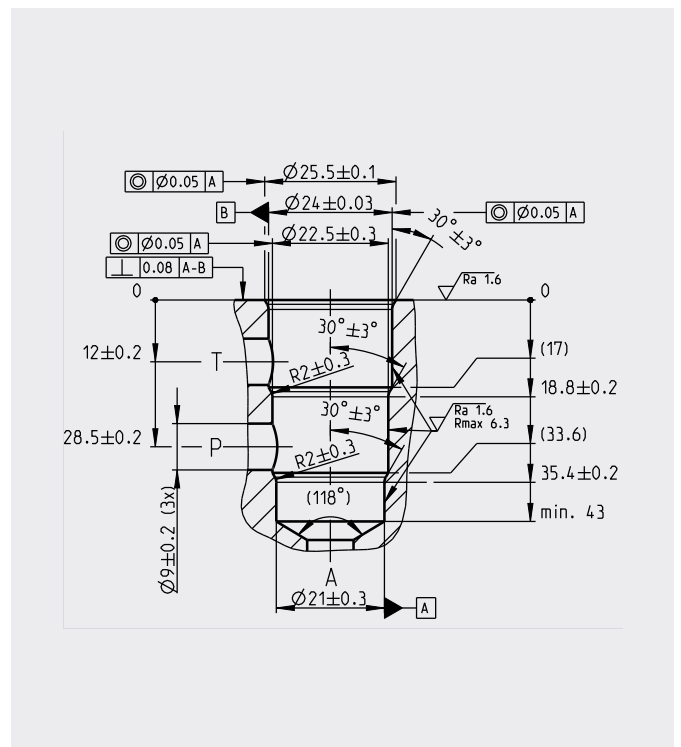
ADDITIONAL DATA

Weight	approx. 230 g
Mounting position (recommended)	any
MTTF_d-value	150 years
Reference	Valve specifications according to Thomas LHP - tbd.

DIMENSIONS WITH DEUTSCH CONNECTOR* (All dimensions in mm)



CAVITY DIMENSIONS (All dimensions in mm)



MODEL CODE								
PPCD 09	-001	-a	-s	-20	-12	-D	-F	-0
					-24			
Valve Style								
	Version							
		Solenoid type						
			Cavity type					
				Control pressure range: 20 bar				
					Voltage: 12 V or 24 V			
						Connector: D Deutsch DT04-2P		
							Seal material: F FKM	
								Manual override: 0 without

- Defined by Thomas
- Customers choice

CONTACT DETAILS




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