

CPA-PPCD04

Proportional Valve



Product classification

Name	Max volume flow @ 6 bar dp	
PPCD03	1,25 l/min	Direct controlled
PPCD04	2,5 - 5 l/min	
PPCD05	10 l/min	
PPCD06	15 l/min	
PPCD08	20 l/min	
PPCD09	30 l/min	
PPCP09	35 l/min	Pilot operated
PPCP13	72 l/min	

Proportional
valves

Directional
valves

Smart
products

Special
designs

Benefits

- ≡ **Durability:** 2 mm connector wall
- ≡ **Optimized design for smaller applications:** only 26 mm wide
- ≡ **Flexible mounting:** rotatable flange with just one screw – saves time
- ≡ **Space-saving:** 60° angled connector for optimized wire routing
- ≡ **Faster response:** 25% shorter response time
- ≡ **Waterproof:** IP6K6 thanks to overmolded solenoid



Hydraulic Data

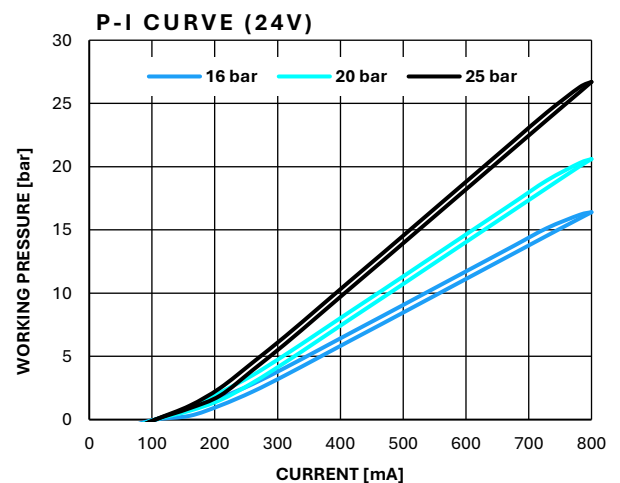
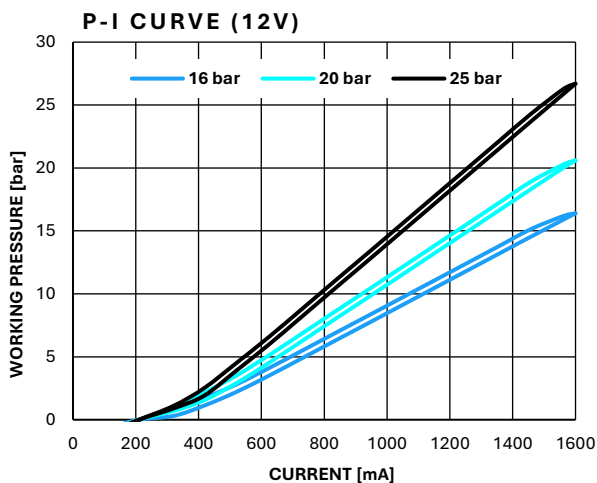
Max pressure pump	$P_p = 50$ bar
Max pressure tank	$P_T = 10$ bar
Max pressure work	$P_A = 16 \pm 3, 20 \pm 3$ or 25 ± 3 bar (28 bar on request)
Hysteresis	Typical 0,5 - 1,2 bar (depending on control signal)
Contamination level	Max. 20/18/15 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range fluid	-30 °C to +90 °C
Leakage (internal)*	< 0,06 l/min (de-energized) < 0,25 l/min (energized)
Filterscreen size	125 μ m (P-Port)

Electrical Data

Voltage	12 V	24 V
Max current	1500 mA	750 mA
Resistance	$3,76 \Omega \pm 5\%$	$15,88 \Omega \pm 5\%$
Type of control (recommended)	Dither 100 Hz 300 mA PTP	Dither 100 Hz 150 mA PTP
Connector	Deutsch Connector DT04-2P	
Protection class	Up to IP6K6 / IPX7	
Switching time	$t_{on} < 40$ ms ($p_A = 0\%$ to 90%) $t_{off} < 40$ ms ($p_A = 100\%$ to 10%)	

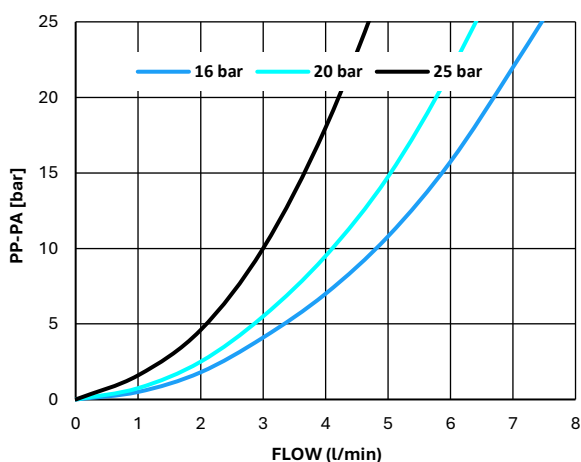
* The reported data are measured @ $P_p = 35$ bar
(16, 20 and 25 bar version), oil viscosity of 32 cSt

Current vs. Pressure (Average characteristic)

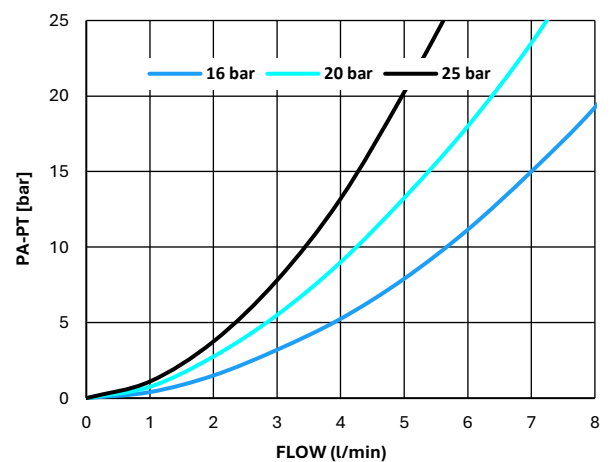


Flow characteristics (Average characteristic)

PRESSURE DROP PUMP TO CONTROL PORT (P→A)
Valve only

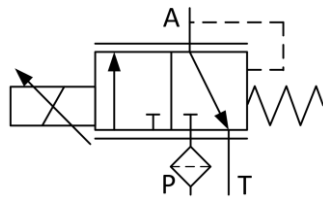


PRESSURE DROP CONTROL PORT TO TANK (A→T)
Valve only





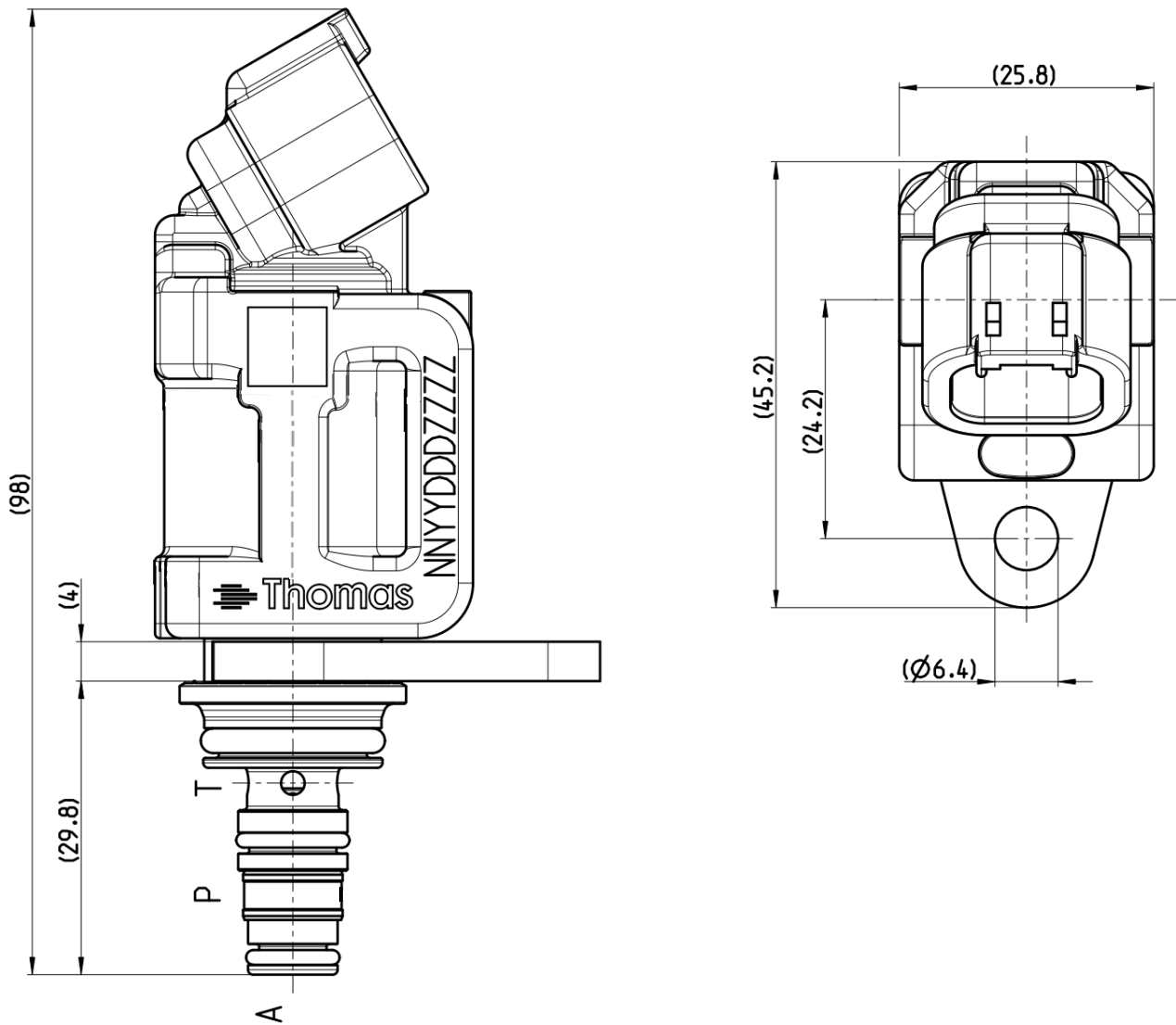
Hydraulic schematic



Additional data

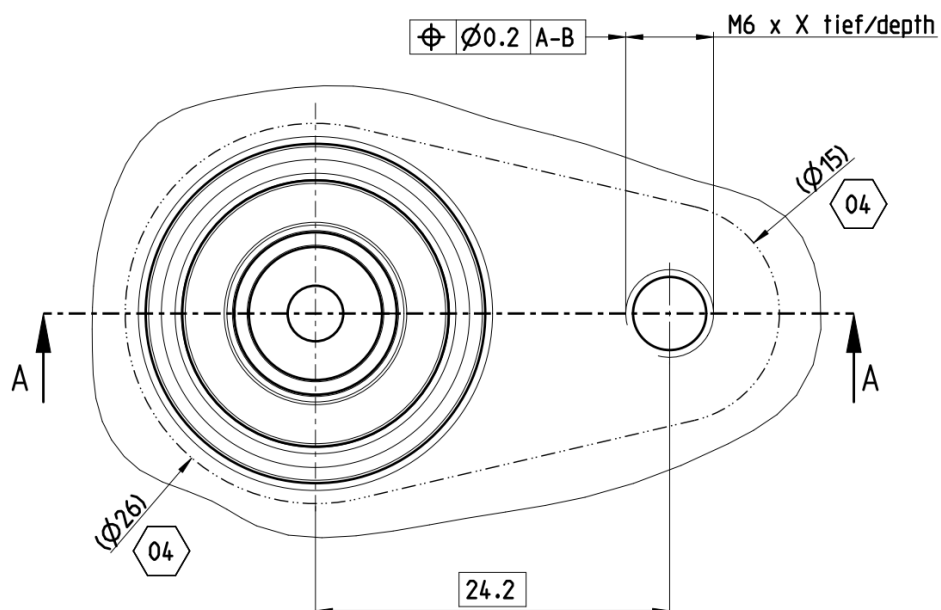
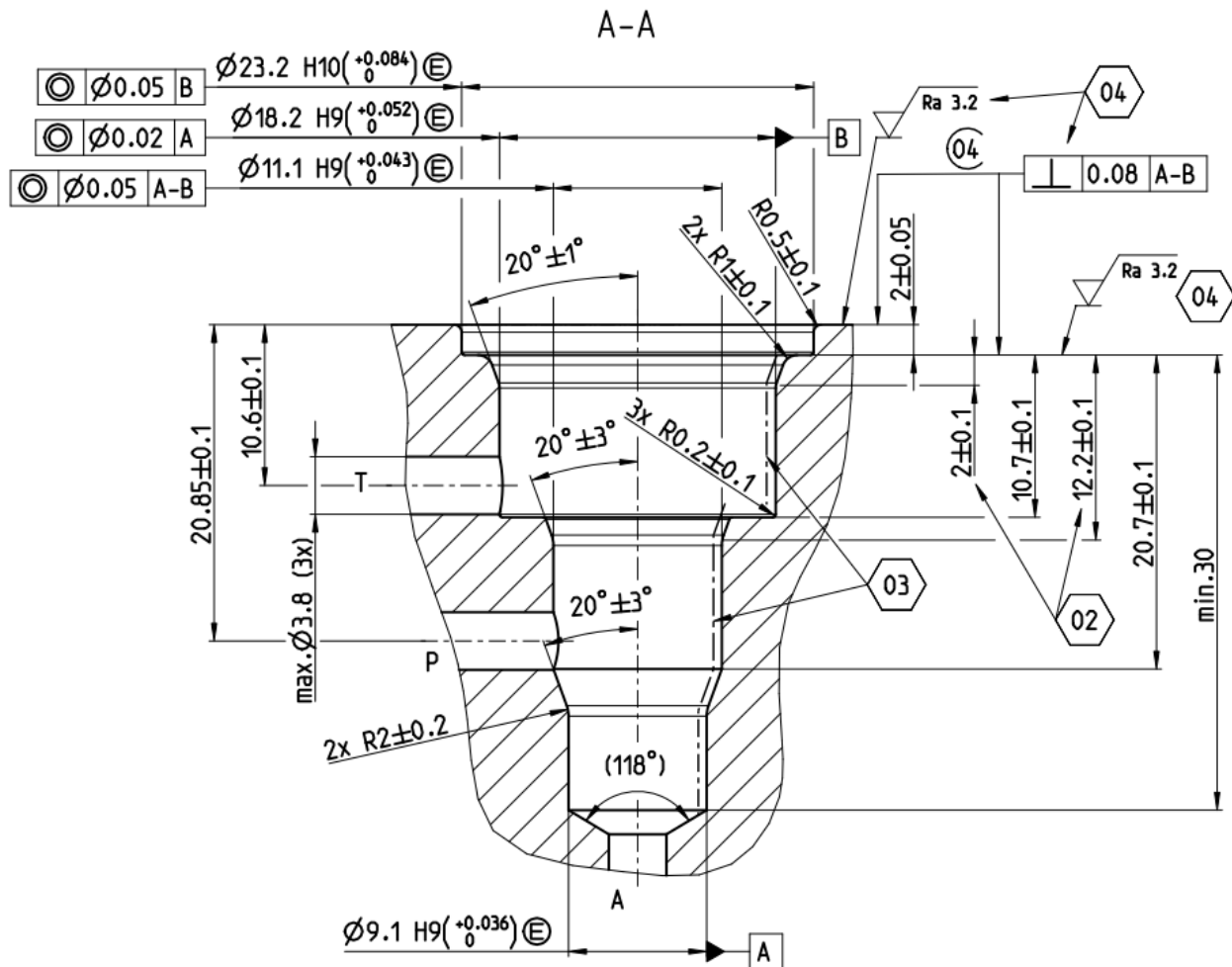
Weight	150 g
Mounting position	Any
MTTF _a -value	150 years According to ISO 13849-2 C1, C2
Reference	Valve specification according to Thomas LHP 100

Dimensions with Deutsch Connector [mm]





Cavity Dimensions (All dimensions in mm)





Model Code

PPCD04	-001	-k	-aa	-16	-12	-D60	-H	-W
				-20	-24			
				-25				
				-28				
Valve style								
Version								
Solenoid type								
Cavity type								
				Control pressure range: 16, 20 or 25 bar (28 bar on request)				
				Voltage: 12 V or 24 V				
						Connector: D Deutsch DT04-2P, 60°		
							Sealing material: H HNBR	
								Manual override: W without

- Defined by Thomas
- Customers choice

DISCLAIMER



The presented information is based on current knowledge and provides only non-binding information to the customer. Any liability in connection with this information is excluded. It is the responsibility of the customer to determine the suitability and appropriateness of the product for his intended purpose. We reserve the right to change the product with regard to technical progress and new developments.

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