

# Proportional Pressure Control Valve PPCD04 – PPRV



## 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
<b>PPCD 04</b>	<b>2,5–5 l/min</b>	
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	$P_A = 20, 25$ or 32 bar
Hysteresis	< 3 % of the nominal pressure at 100 Hz PWM signal
Contamination level	Min Filtration: 20/18/15 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range fluid	-30°C to +105°C
Leakage (internal)	< 0,1 l/min (de-energized) < 0,5 l/min (energized)
Filterscreen size	125 $\mu$ m (P-Port)

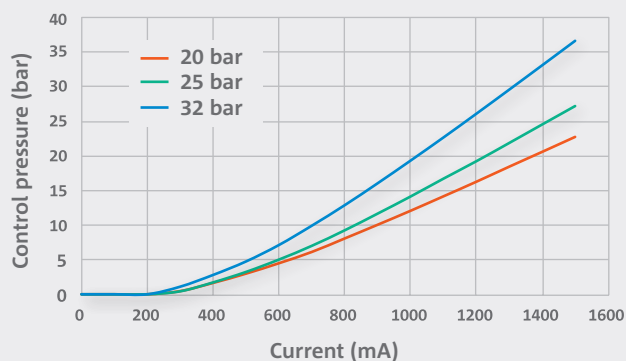
## ELECTRICAL DATA

Voltage	12 V	24 V
Max current	1500 mA	750 mA
Resistance	5,3 $\Omega \pm 5\%$	21,2 $\Omega \pm 5\%$
Type of control	Current control PWM 100 Hz recommended	
Connector	AMP Junior timer Deutsch Connector DT04-2P 90° Deutsch Connector DT04-2P	
Protection class	up to IP6K6 / IPX9K	
Switching time	$t_{on} < 50$ ms (pA = 0% to 90%) $t_{off} < 50$ ms (pA = 100% to 10%)	

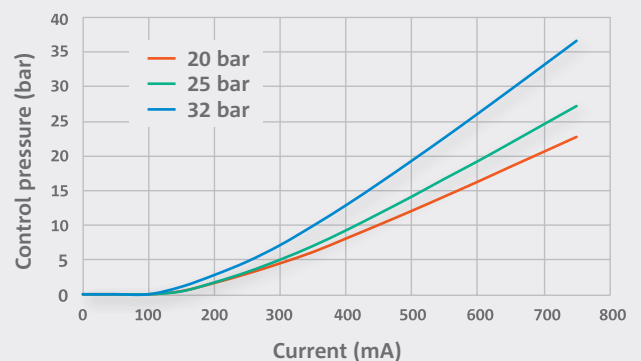
\* The reported data are measured @  $P_p=35$  bar (20 and 25 bar version and 40 bar (32 bar version) an oil viscosity of 32 cSt

## CURRENT VS. PRESSURE (AVERAGE CHARACTERISTIC)

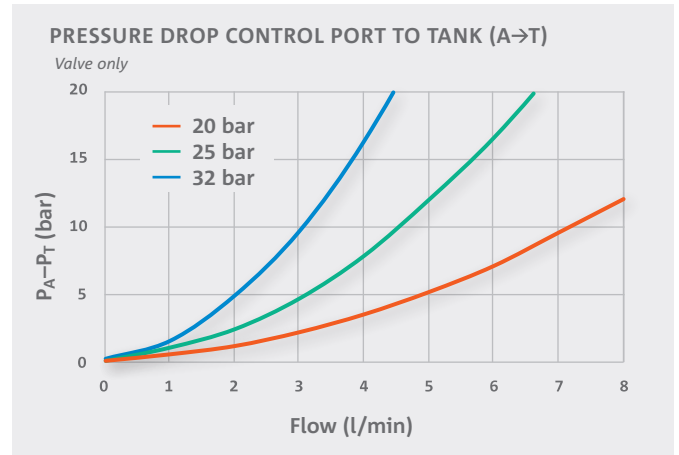
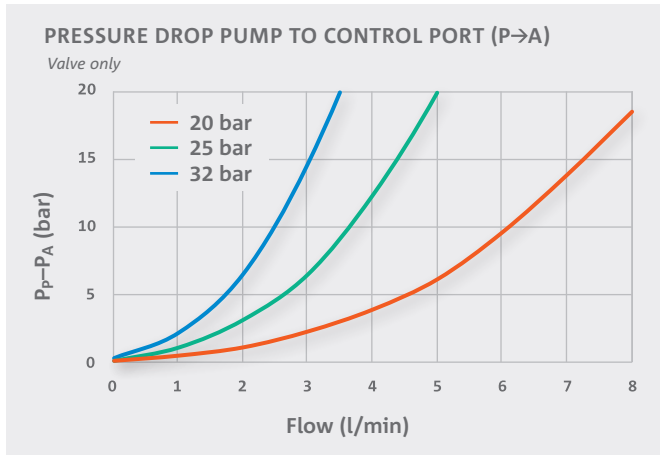
P-I CURVE (12 V)



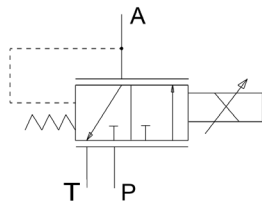
P-I CURVE (24 V)



## FLOW CHARACTERISTICS (AVERAGE CHARACTERISTIC)



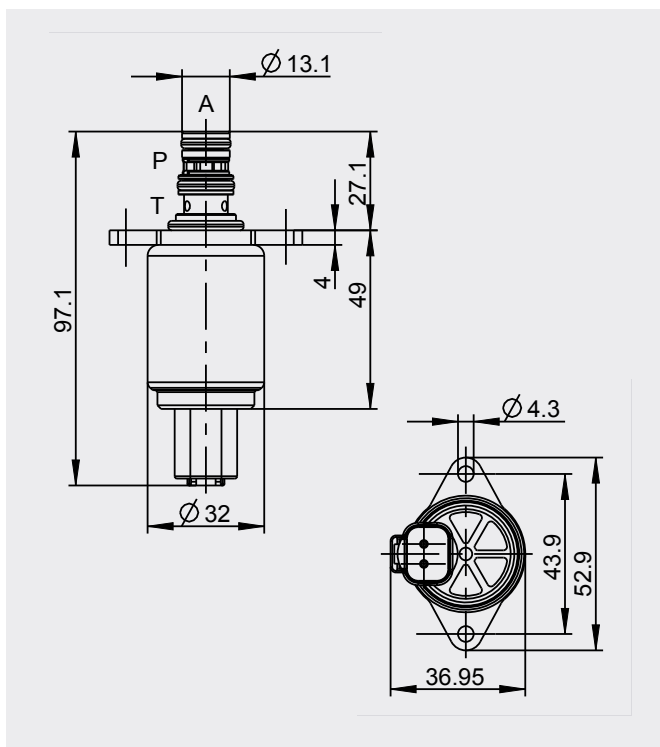
## HYDRAULIC SCHEMATIC



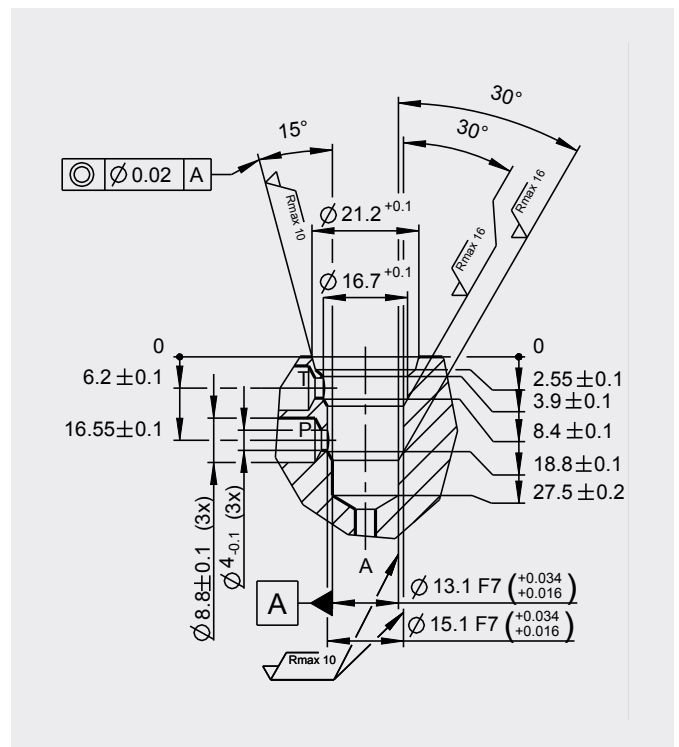
## ADDITIONAL DATA

<b>Weight</b>	approx. 230 g
<b>Mounting position (recommended)</b>	any
<b>MTTF<sub>d</sub>-value</b>	150 years
<b>Reference</b>	Valve specifications according to Thomas LHP 31

## DIMENSIONS WITH DEUTSCH CONNECTOR\* (All dimensions in mm)



## CAVITY DIMENSIONS (All dimensions in mm)



\*Dimensions for AMP Jr. Connector available on request.

### MODEL CODE

PPCD 04	-001	-b	-c	-20	-12	-J	-N	-W
				-25	-24	-D		-M
				-32		-DH		

Valve Style

Version

Solenoid type

Cavity type

Control pressure range:  
20, 25 or 32 bar

Voltage: 12 V or 24 V

Connector:  
J AMP Jr Power Timer or  
D Deutsch DT04-2P  
DH 90° Deutsch DT04-2P

Seal material: N NBR

Manual override: W without  
or M with (only with connector  
type J)

- Defined by Thomas
- Customers choice

### CONTACT DETAILS

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