

# Proportional Pressure Control Valve

## PPCD09–NG PPRV HF (preliminary May 2021)



### 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	
<b>PPCD 09</b>	<b>30 l/min</b>	
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 +105°C
Leakage (internal)	< 0,05l/min (de-energized) < 0,4 l/min (energized)
Filterscreen size	140 $\mu$ m (P-Port)

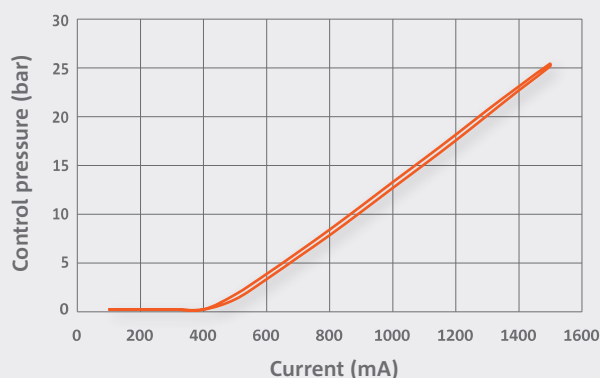
### ELECTRICAL DATA

Voltage	12 V	24 V	
Max current	1500 mA	<b>1400 mA</b>	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 <sub>24V</sub> /200 <sub>12V</sub> mA peak to peak)		
Connector	AMP Junior timer (except 8,15 $\Omega$ -coil) Deutsch Connector DT04-2P		
Protection class	up to IP6K6 / IPX9K		
Switching time	$t_{on} < 40$ ms ( $p_A = 0\%$ to 90%) $t_{off} < 40$ ms ( $p_A = 100\%$ to 10%)		

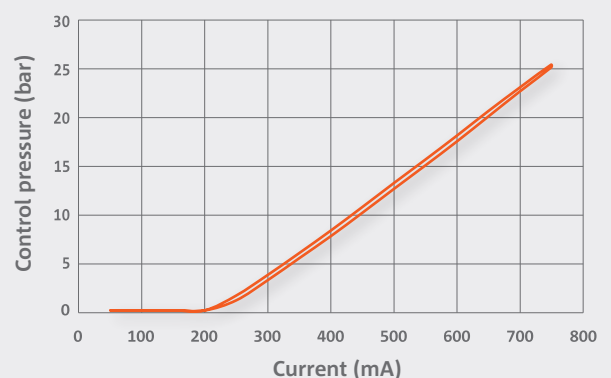
\* The reported data are measured @  $P_p = 35$  bar and an oil viscosity of 32 cSt

### CURRENT VS. PRESSURE

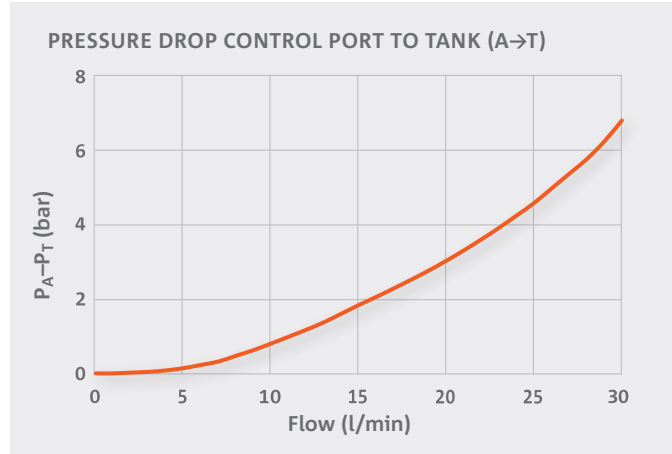
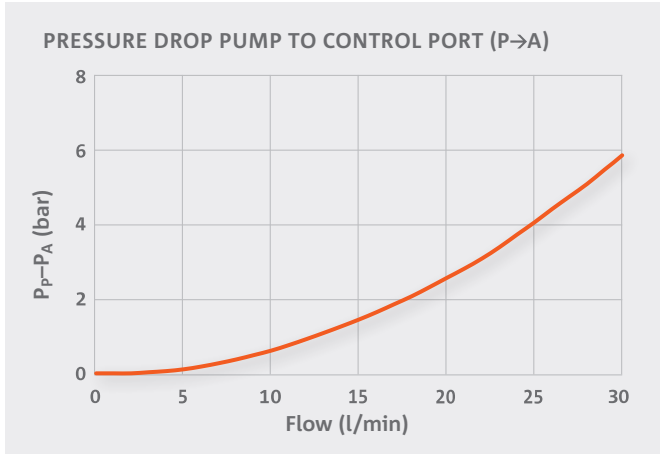
P-I CURVE (12 V)



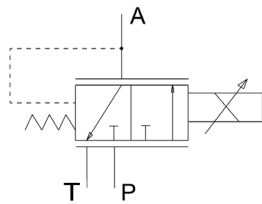
P-I CURVE (24 V)



## FLOW CHARACTERISTICS



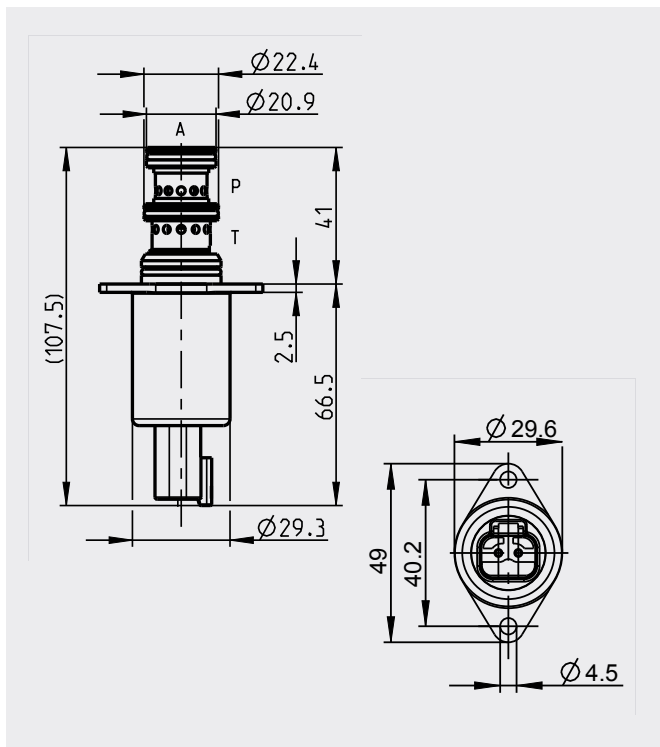
## HYDRAULIC SCHEMATIC



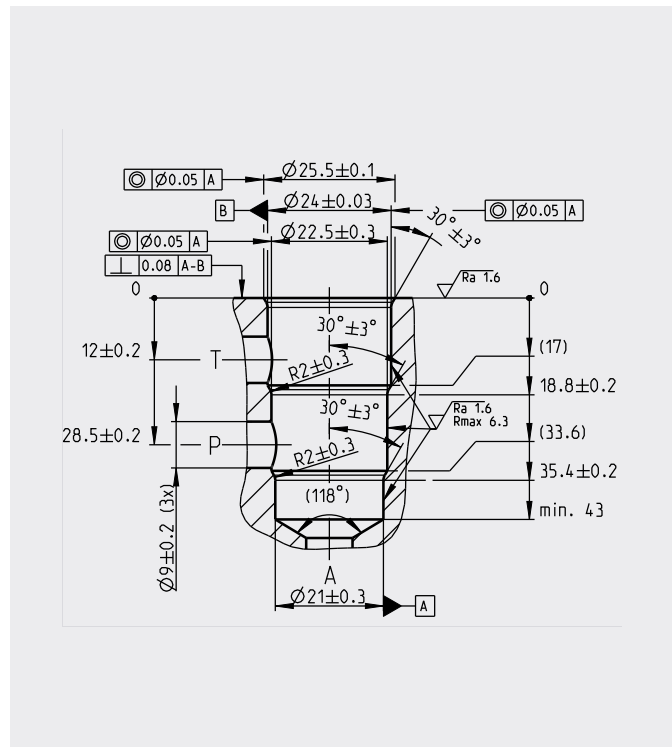
## ADDITIONAL DATA

<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 95

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



## CAVITY DIMENSIONS (All dimensions in mm)



**MODEL CODE**

PPCD 09	-001	-a	-s	-20	-12	-J	-F	-0
					-24	-D		

Valve Style

Version

Solenoid type

Cavity type

Control pressure range: 20 bar

Voltage: 12 V or 24 V

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

Seal material: F FKM

Manual override: 0 without

- Defined by Thomas
- Customers choice

**CONTACT DETAILS**

**Michael Lutz**

Thomas Magnete GmbH

- Innomotion Park 3  
57562 Herdorf, Germany
- Tel. +49 2744 929-220
- michael.lutz@thomas-magnete.com
- www.thomas-group.com

**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.