

# Proportional Pressure Control Valve PPCP09 – PPRV HF



## 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	
<b>PPCP 09</b>	<b>35 l/min</b>	<b>Pilot operated</b>
PPCP 13	72 l/min	

## HYDRAULIC DATA

Max pressure pump	$P_p = 32$ bar
Max pressure tank	$P_T = 10$ bar
Max pressure work	$P_A = 30$ bar
Hysteresis	< 2 % of the nominal pressure at tbd. Hz PWM signal
Contamination level	Min Filtration: 18/15/13 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range fluid	-30°C to +105°C
Leakage (internal)	< 1,25 l/min (de-energized) < 1,5 l/min (energized) caused by the pilot flow
Filterscreen size	320 $\mu$ m (P-Port)

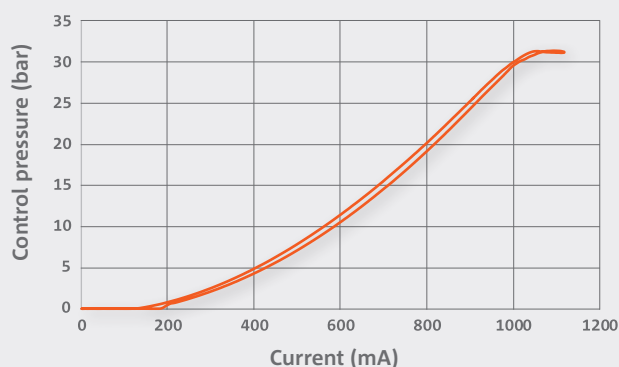
## ELECTRICAL DATA

Voltage	12 V	24 V
Max current	1000 mA	500 mA
Resistance	7,7 $\Omega \pm 5\%$	31,0 $\Omega \pm 5\%$
Type of control	PWM signal > 1000Hz + superimposed dither 150 to 200 Hz (200 mA peak to peak) recommended	
Connector	Deutsch Connector DT04-2P	
Protection class	up to IP6K6 / IPX9K	
Switching time	$t_{on} < 60$ ms (pA = 0% to 90%) $t_{off} < 60$ ms (pA = 100% to 10%)	

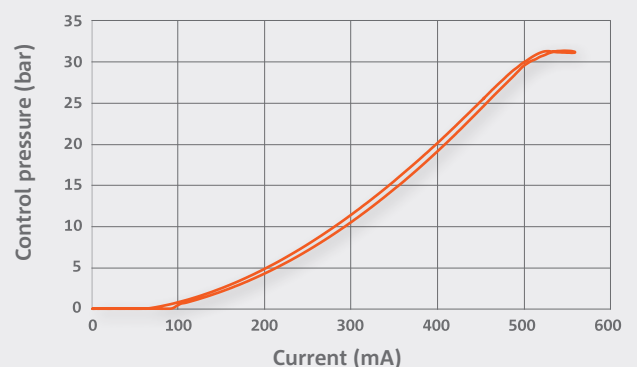
\* The reported data are measured @  $P_p = 32$  bar and an oil viscosity of 32 cSt

## CURRENT VS. PRESSURE (AVERAGE CHARACTERISTIC)

P-I CURVE (12 V)



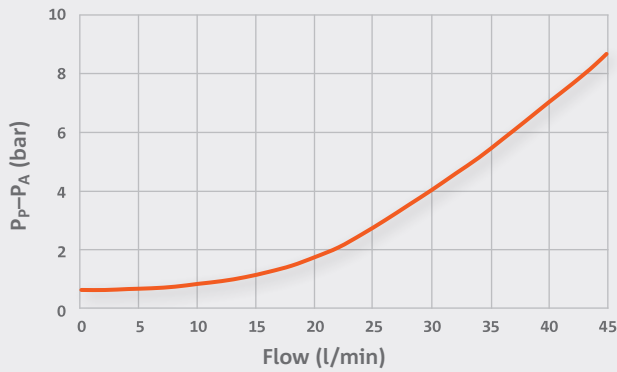
P-I CURVE (24 V)



## FLOW CHARACTERISTICS (AVERAGE CHARACTERISTIC)

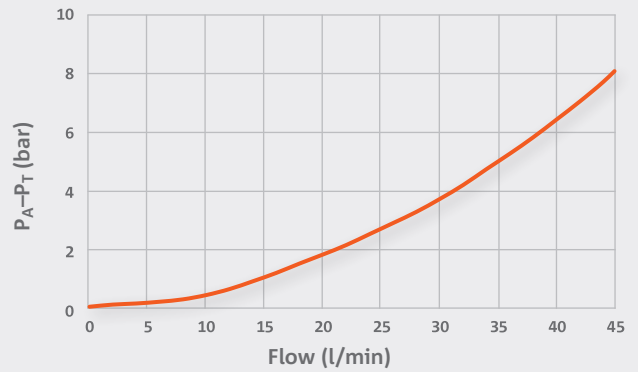
**PRESSURE DROP PUMP TO CONTROL PORT (P→A)**

Valve only

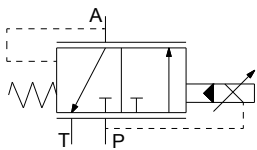


**PRESSURE DROP CONTROL PORT TO TANK (A→T)**

Valve only



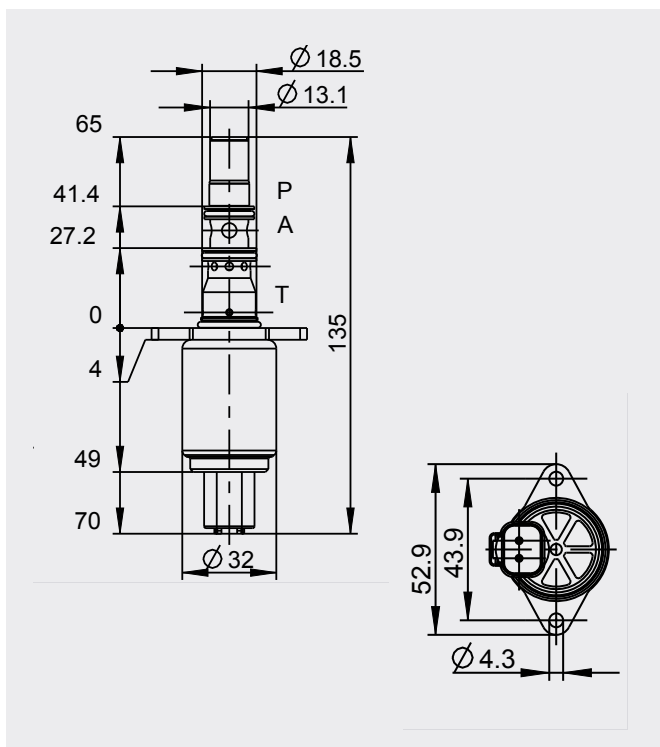
## HYDRAULIC SCHEMATIC



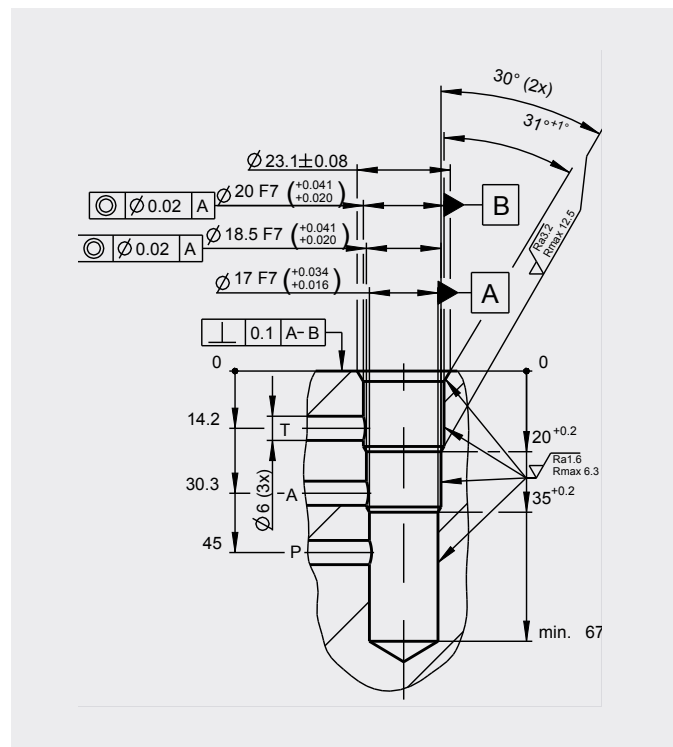
## ADDITIONAL DATA

<b>Weight</b>	approx. 270 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 - 79

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



## CAVITY DIMENSIONS (All dimensions in mm)



**MODEL CODE**

PPCP 09	-001	-b	-h	-30	-12	-D	-F	-W
---------	------	----	----	-----	-----	----	----	----

Valve Style

Version

Solenoid type

Cavity type

Control pressure range: 30 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**

**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.