

# Proportional Pressure Control Valve PPCP09 – PPRV HF



## PRODUCT CLASSIFICATION

Proportional valves

Directional valves

Smart products

Special designs

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

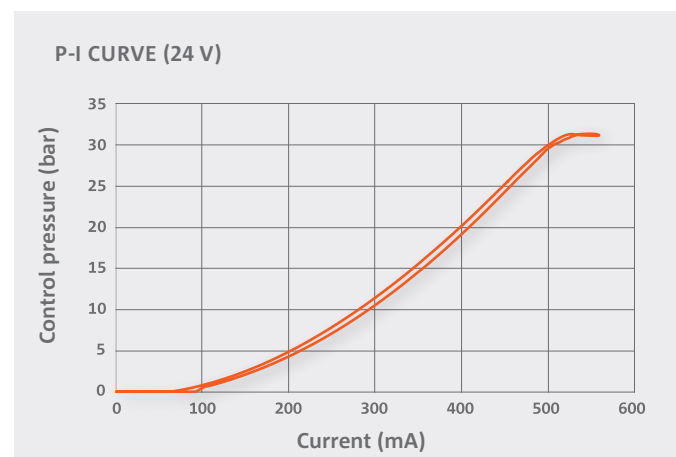
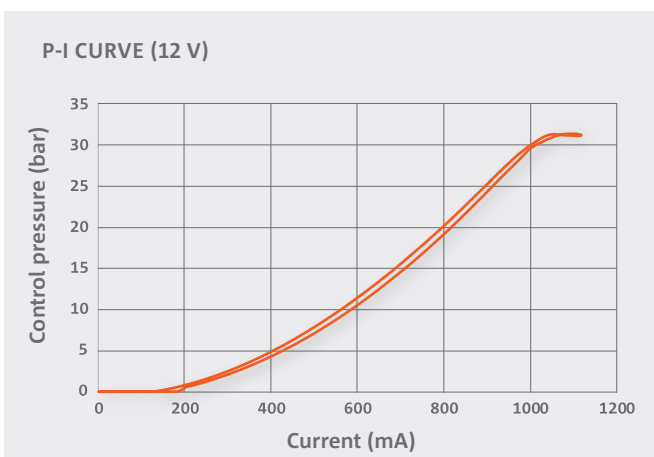
Max pressure pump	$P_p = 32$ bar
Max pressure tank	$P_T = 10$ bar
Max pressure work	$P_A = 30$ bar
Hysteresis	< 2 % of the nominal pressure at tbd. Hz PWM signal
Contamination level	Min Filtration: 18/15/13 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range fluid	-30°C to +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

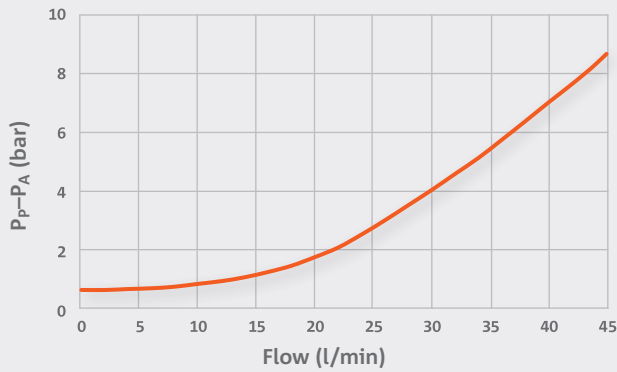
## CURRENT VS. PRESSURE (AVERAGE CHARACTERISTIC)



## FLOW CHARACTERISTICS (AVERAGE CHARACTERISTIC)

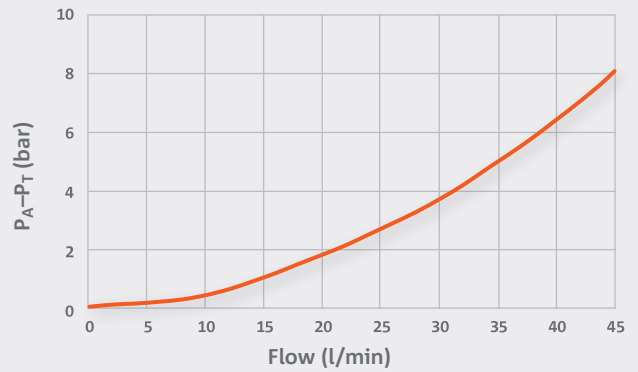
**PRESSURE DROP PUMP TO CONTROL PORT (P→A)**

Valve only

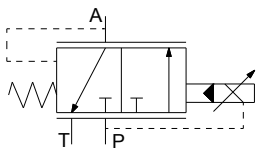


**PRESSURE DROP CONTROL PORT TO TANK (A→T)**

Valve only



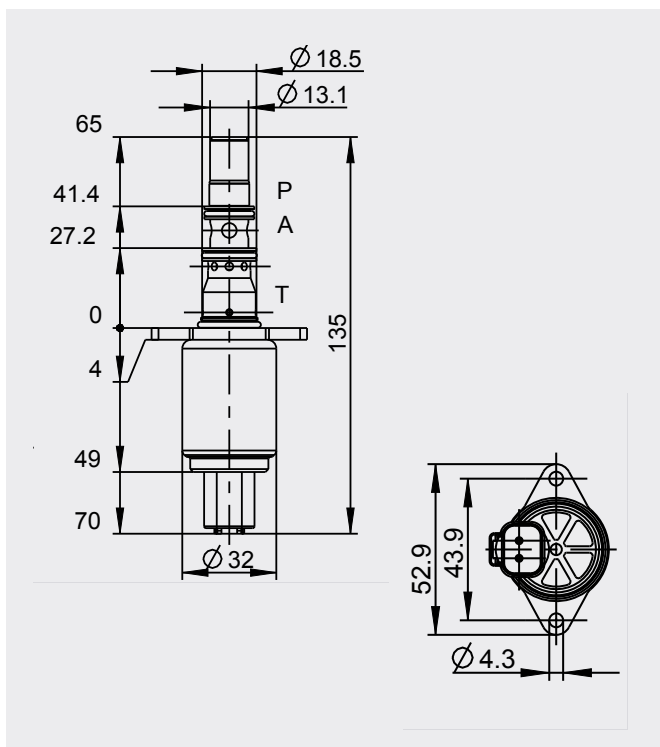
## HYDRAULIC SCHEMATIC



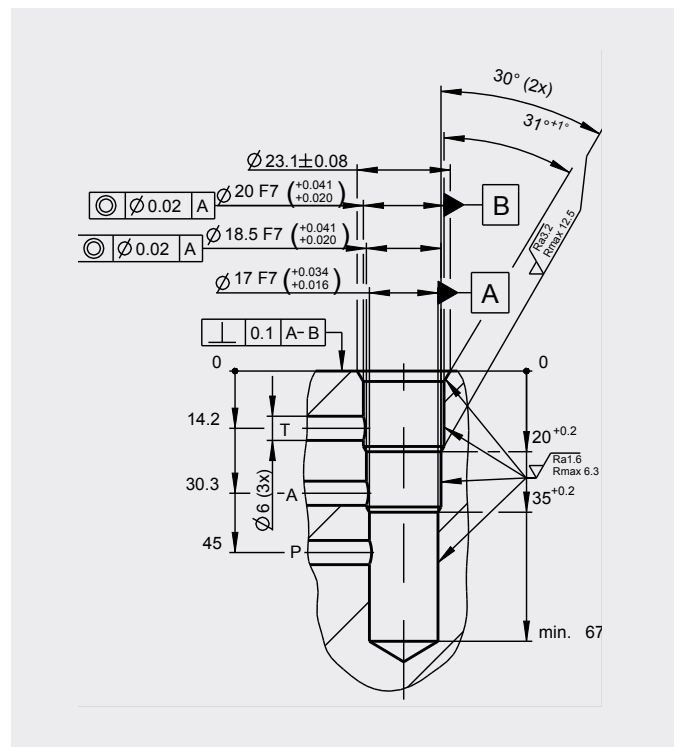
## ADDITIONAL DATA

<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	-0
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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**

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**DISCLAIMER**

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