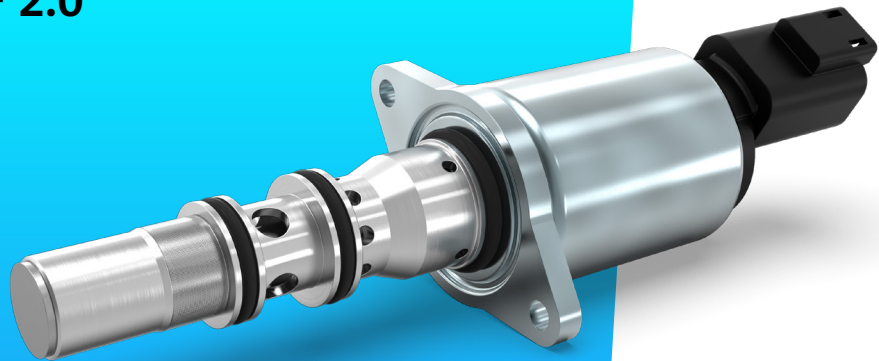


# Proportional Pressure Control Valve PPCP09 – PPRV HF 2.0



preliminary August 2023 //  
now also available with 90° connector

Proportional  
valves

Directional  
valves

Smart  
products

Special  
designs

## Product classification

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>	Pilot operated
PPCP 13	72 l/min	



### Hydraulic Data

Max pressure pump	$P_p = 32 \text{ bar}$
Max pressure tank	$P_T = 10 \text{ bar}$
Max pressure work	$P_A = 30 \text{ bar @ } 1000\text{mA} / 500\text{mA}$ $P_A = 22 \text{ bar @ } 1000\text{mA} / 500\text{mA}$
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 $\mu\text{m}$ (P-Port)

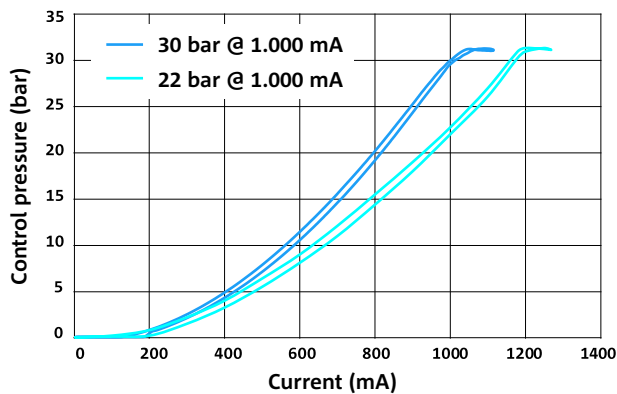
### Electrical Data

Voltage	12 V	24 V
Max current	1000 mA	500 mA
Resistance	5,3 $\Omega \pm 5\%$ (7,7 $\Omega \pm 5\%$ )	21,2 $\Omega \pm 5\%$ (31,0 $\Omega \pm 5\%$ )
Type of control	Recommended: Dither 100 Hz (Amplitude PTP: 400mA @ 12V, 200mA @ 24V)	
Connector	AMP Junior timer Deutsch Connector DT04-2P 90° Deutsch Connector DT04-2P	
Protection class	up to IP6K6 / IPX9K / IPX7	
Switching time	$t_{on} < 60 \text{ ms}$ (pA = 0% to 90%) $t_{off} < 60 \text{ ms}$ (pA = 100% to 10%)	

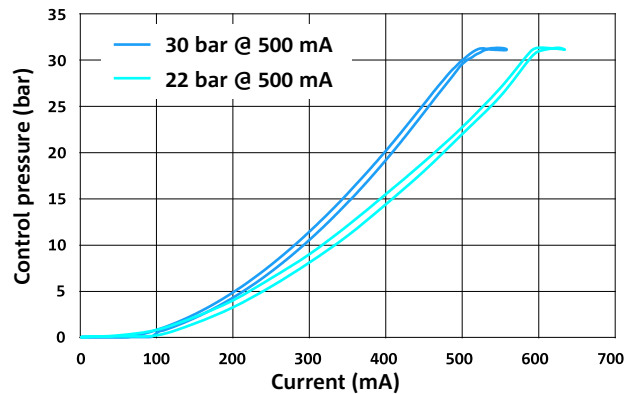
\* The reported data are measured @  $P_p = 32 \text{ bar}$  and an oil viscosity of 32 cSt

### Current vs. Pressure (average characteristic)

P-I CURVE (12 V)



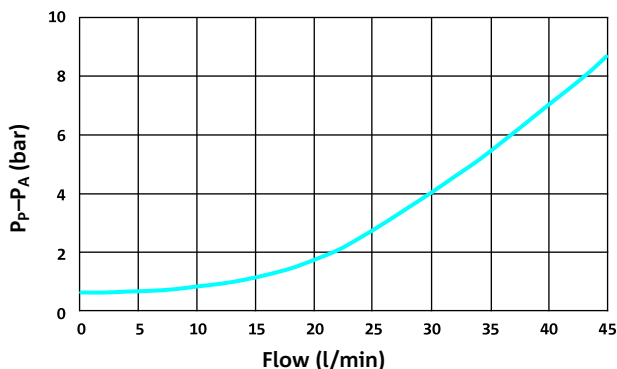
P-I CURVE (24 V)



### Flow characteristics (Average characteristic)

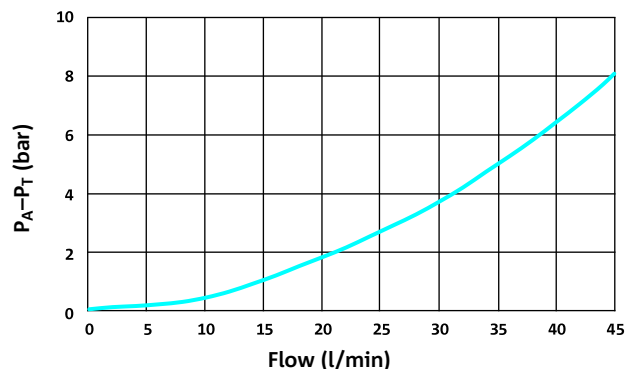
PRESSURE DROP PUMP TO CONTROL PORT (P→A)

Valve only



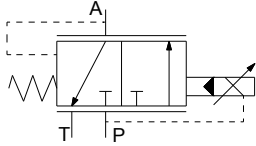
PRESSURE DROP CONTROL PORT TO TANK (A→T)

Valve only





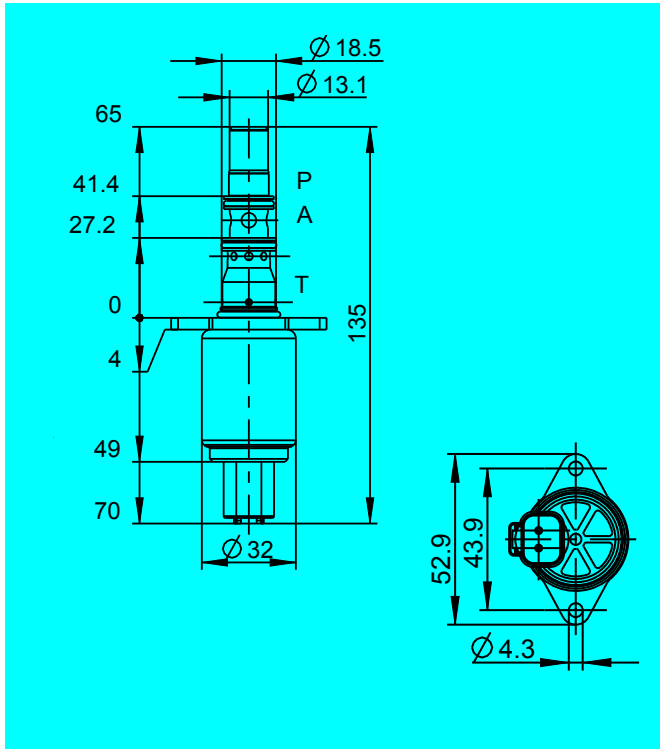
## Hydraulic schematic



## Additional data

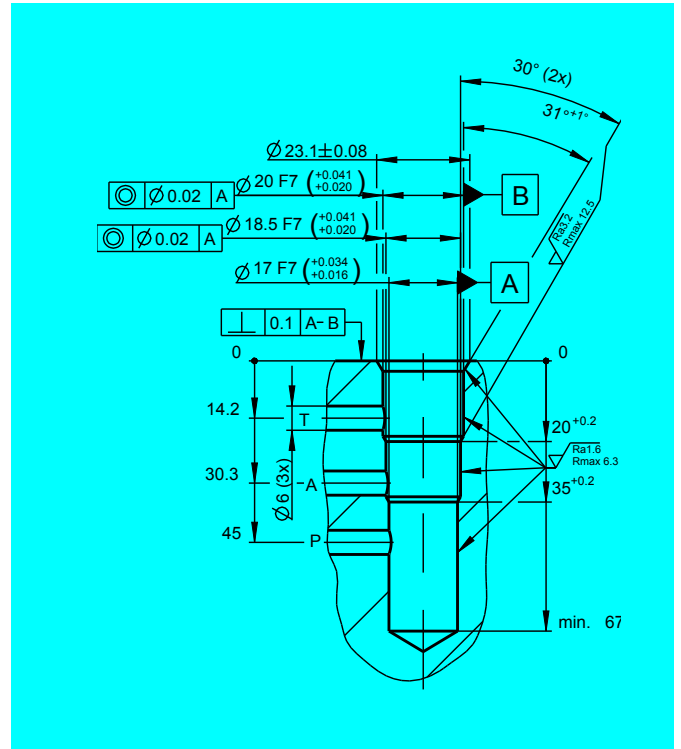
<b>Weight</b>	approx. 270 g
<b>Mounting position (recommended)</b>	any
<b>MTTF<sub>d</sub>-value</b>	150 years
<b>Reference</b>	Valve specifications according to Thomas LHP 79

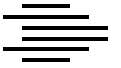
## Dimensions with Deutsch Connector\* (All dimensions in mm)



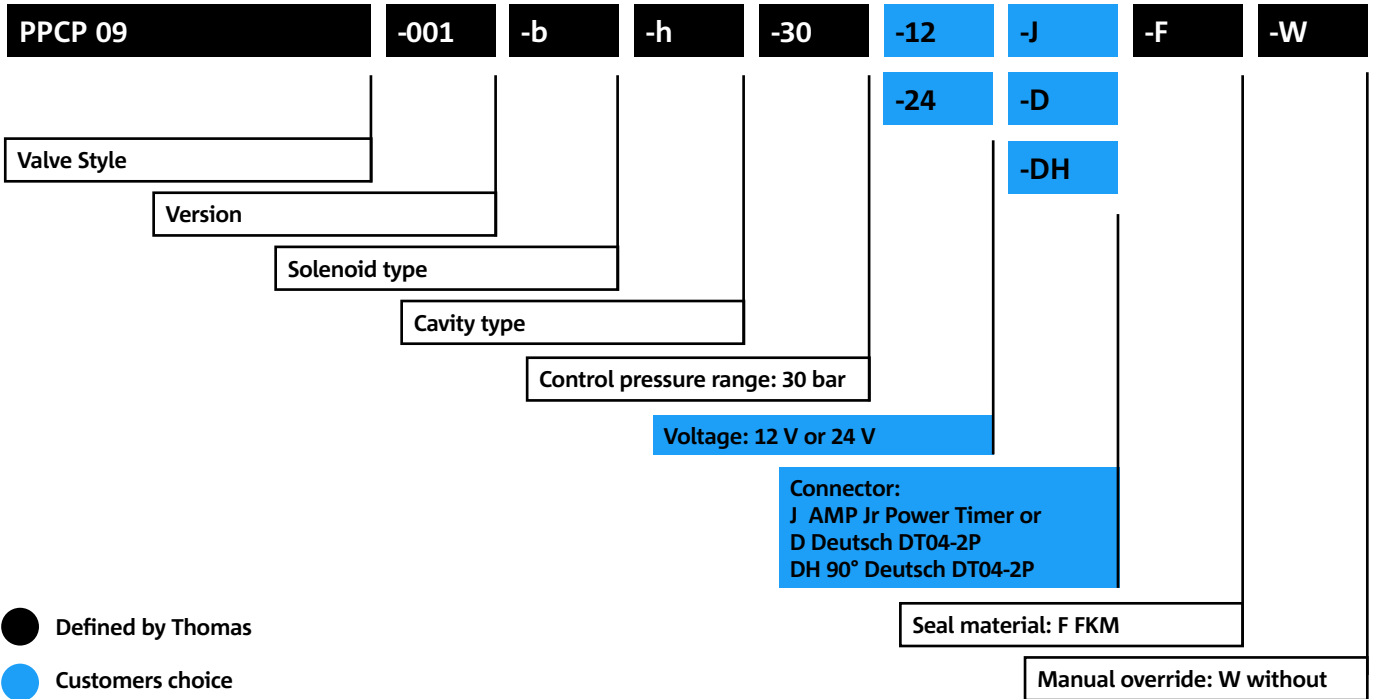
\* Dimensions for AMP Jr. Connector available on request.

## Cavity Dimensions (All dimensions in mm)





## Model code



- Defined by Thomas
- Customers choice

### CONTACT DETAILS

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