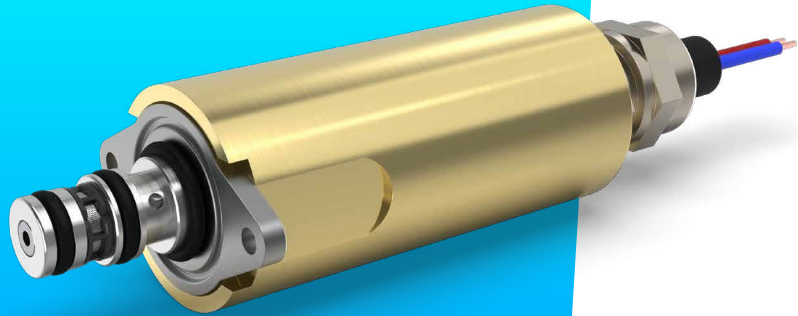


# Proportional Pressure Control Valve ATEX/IECEX PPCD04-PPRV



## Product classification

Name	Max volume flow @ 6 bar dp	
ATEX	2,5-5 l/min	Direct controlled
IPH		
IPRV		

Proportional valves

Directional valves

Smart products

Special designs



### 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	< 3,5 % 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	-20°C to +80°C
Leakage (internal)	< 0,1 l/min (de-energized) < 0,5 l/min (energized)
Filterscreen size	125 $\mu$ m (P-Port) available

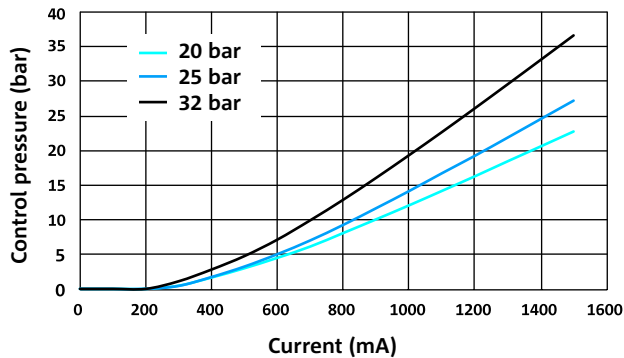
### Electrical Data

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	Shielded cable	
Protection class	up to IP6K6 / IPX7 / IPX9K	
Switching time	$t_{on} < 50$ ms (pA = 0% to 90%) $t_{off} < 50$ ms (pA = 100% to 10%)	

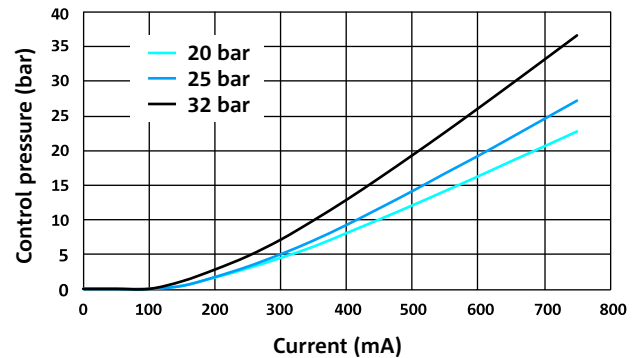
\* The reported data are measured @  $P_p=35$  bar (20 and 25 bar version) and 40 bar (32 bar version) an oil viscosity of 32 cSt

### Current vs. Pressure (average characteristic)

P-I CURVE (12 V)



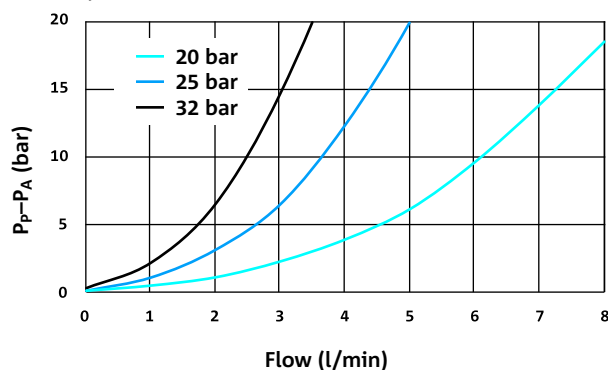
P-I CURVE (24 V)



### Flow characteristics (Average characteristic)

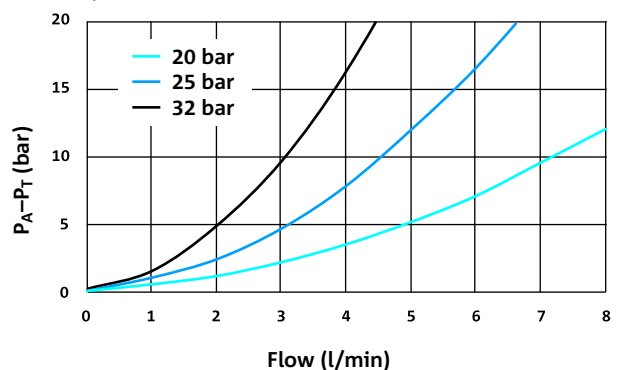
PRESSURE DROP PUMP TO CONTROL PORT (P→A)

Valve only



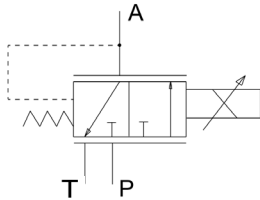
PRESSURE DROP CONTROL PORT TO TANK (A→T)

Valve only





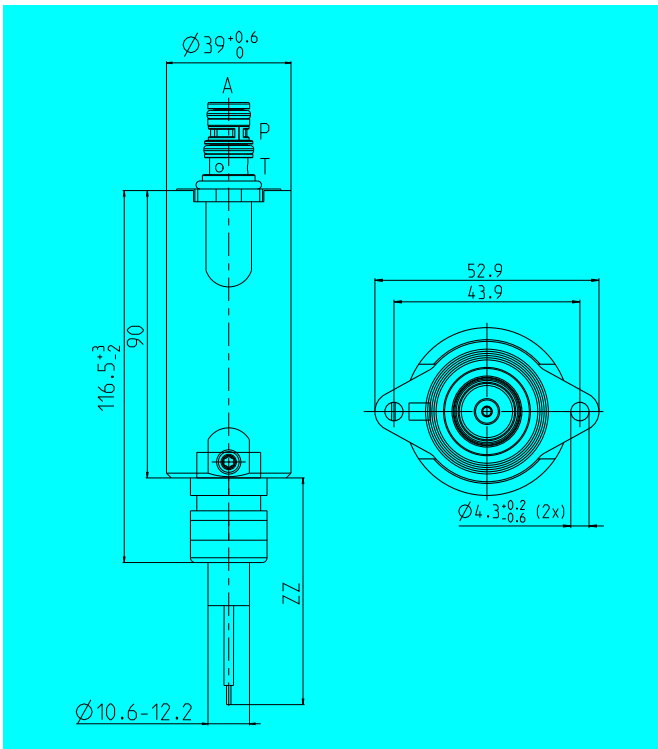
## Hydraulic schematic



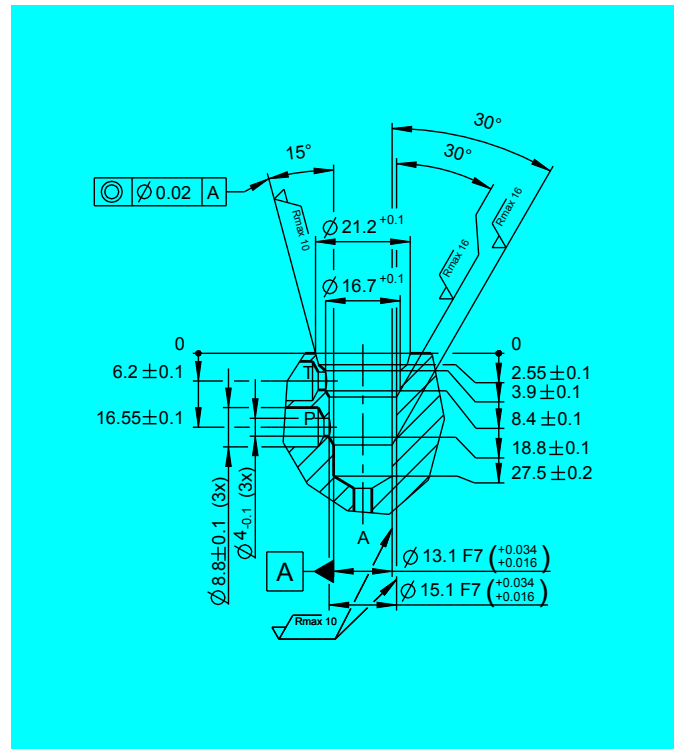
## Additional data

<b>Weight</b>	approx. 580 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)



## Certified field of operation

### Thomas Magnete GmbH

Ex - PPCD 04 / ec / 20/12/C/05 - 13.02.2015

TÜV13 ATEX 7418 X IECEx TUR - 13.0015

Ex I M2 Ex mb I Mb

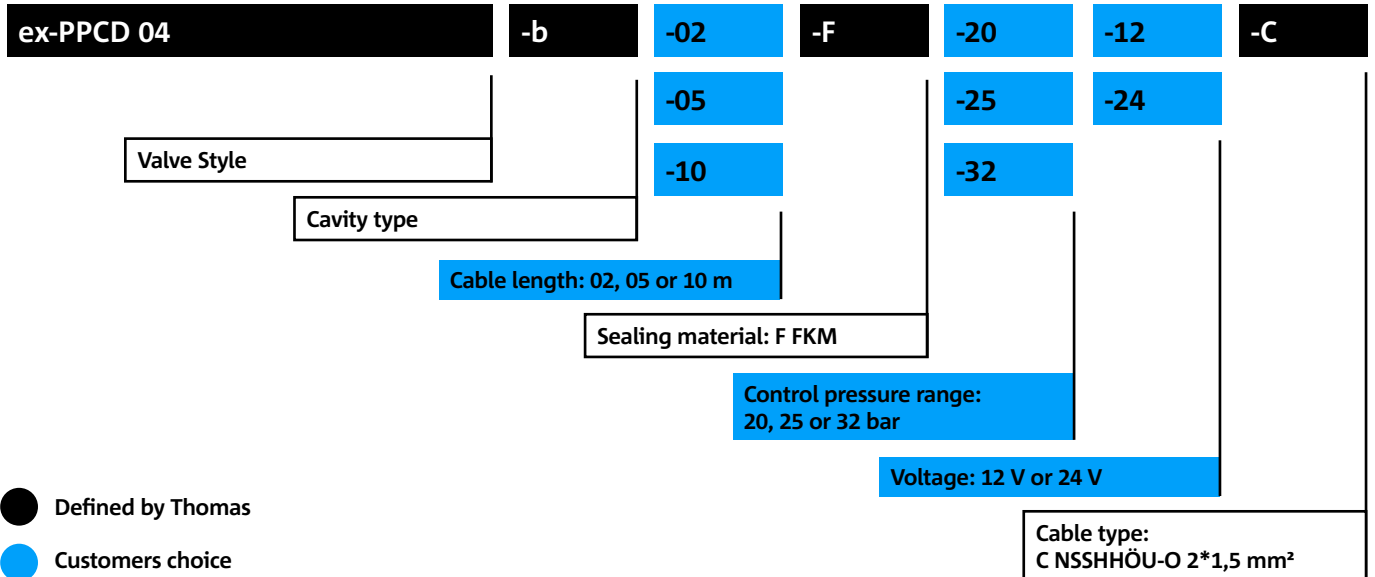
Ex II 2G Ex mb IIC T4 Gb

Ex II AD Ex mb IIIC T130°C Db

CE 0035



## Model code



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