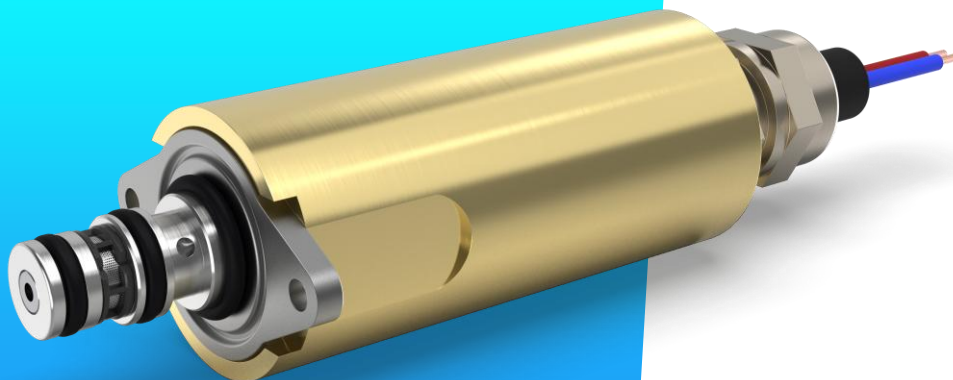


ATEX-PPCD04 Proportional Valve



Product classification

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

Proportional
valves

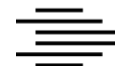
Directional
valves

Smart
products

Special
designs

Benefits and Application

- ATEXS and IECEx certified
- High durability under extreme conditions



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 μ m (P-Port) available

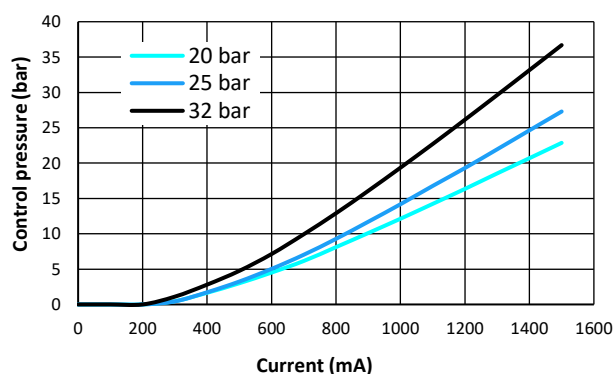
Electrical Data

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%)	

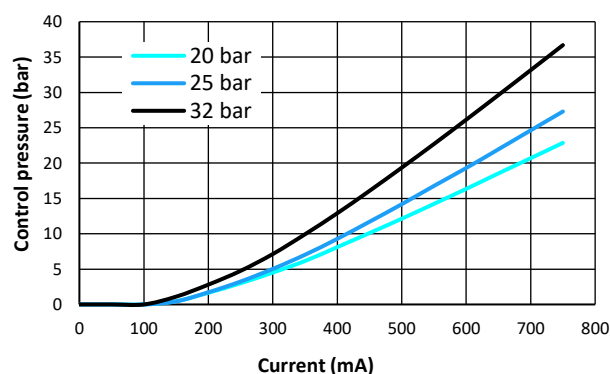
* The reported data are measured @ $P_p = 35$ bar (20 and 25 bar version) and 40 bar (32 bar version) an oil viscosity of 32 cSt

Current vs. Pressure (Average characteristic)

P-I CURVE (12 V)



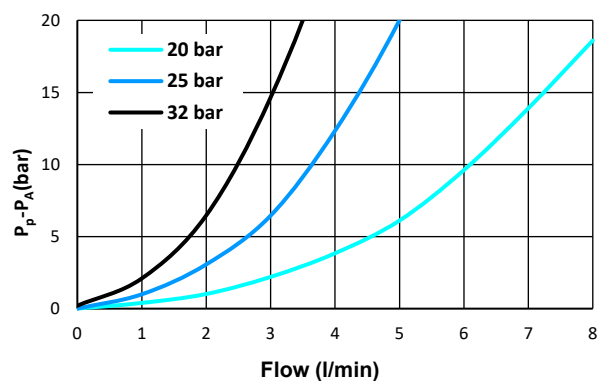
P-I CURVE (24 V)



Flow characteristics (Average characteristic)

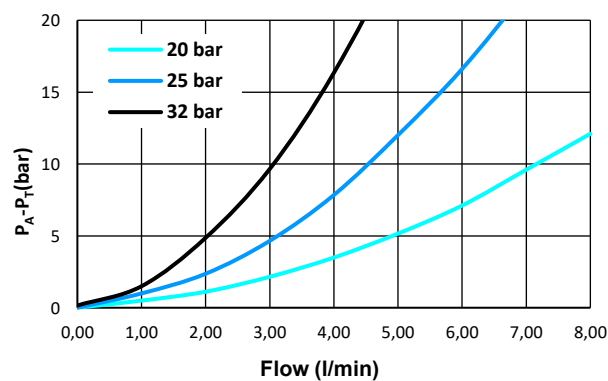
PRESSURE DROP PUMP TO CONTROL PORT (P→A)

Valve only



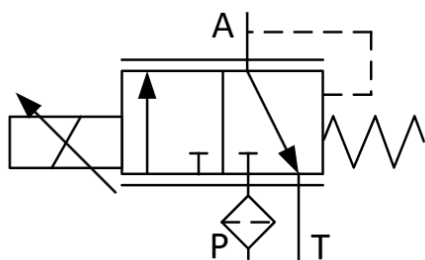
PRESSURE DROP CONTROL PORT TO TANK (A→T)

Valve only





Hydraulic schematic



Additional data

Weight	approx. 580 g
Mounting Position (recommended)	any
MTTF_d-value	150 years
Reference	Valve specifications according to Thomas LHP 31

Certified field of operation

Thomas GmbH

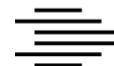
Ex - PPCD 04 / ec / 20/12/C/05 - 13.02.2015

Ex I M2 Ex mb I Mb

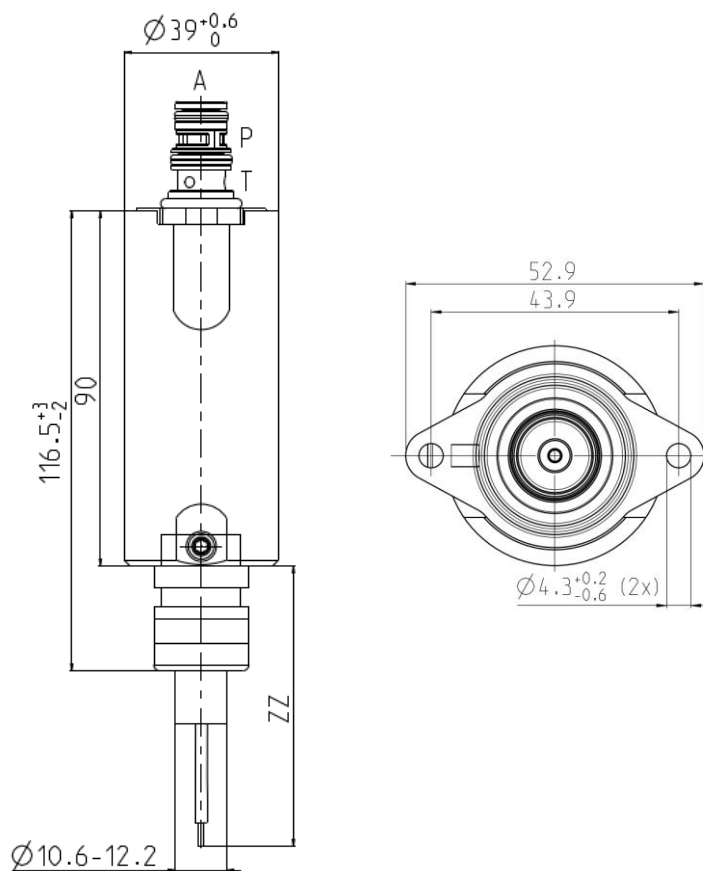
Ex II 2G Ex mb IIC T4 Gb

Ex II AD Ex mb IIIC T130°C Db

CE 0035

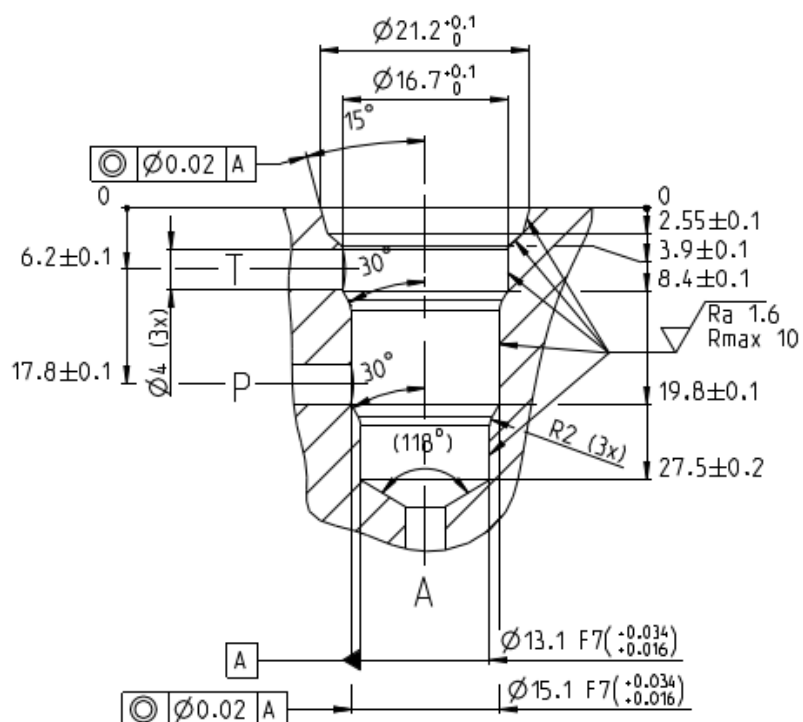


Dimensions with Flying Leads (All dimensions in mm)



Cavity Dimensions

(All dimensions in mm)





Model code

Ex-PPCD04	-b	-02	-F	-20	-12	-C
		-05		-25	-24	
Valve style		-10		-32		
	Cavity type					
		Cable length: 02, 05 or 10 m				
			Sealing material: F FKM			
				Control pressure range: 20, 25 or 32 bar		
					Voltage: 12 V or 24 V	
						Cable type: C NSSHÖU-O 2*1,5 mm²

Defined by Thomas

Customers choice

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.

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