

# Proportional Pressure Control Valve

## PPCD08–NG PPRV HF (preliminary Sept. 2020)



### 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                   |                   |
| <b>PPCD 08</b> | <b>20 l/min</b>            |                   |
| PPCD 09        | 30 l/min                   | Pilot operated    |
| PPCP 09        | 35 l/min                   |                   |
| PPCP 13        | 72 l/min                   |                   |

### HYDRAULIC DATA

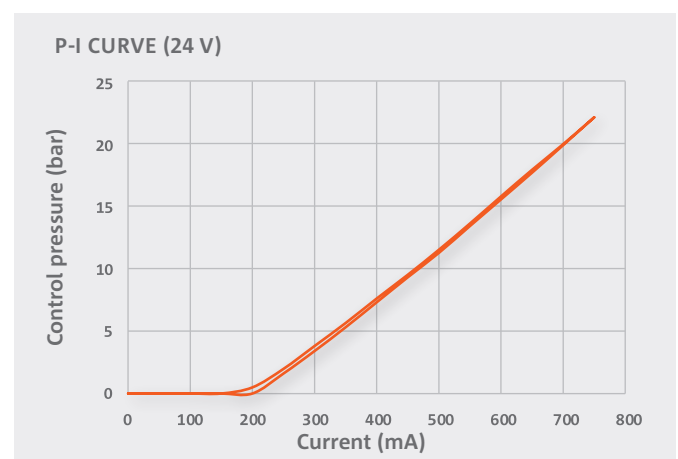
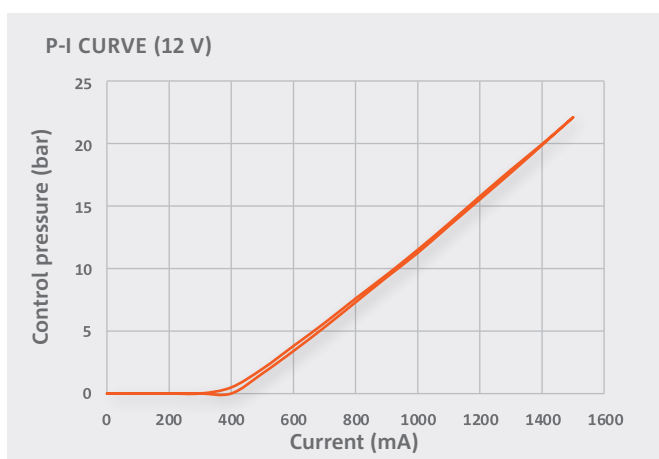
|                         |   |
|-------------------------|---|
| Max pressure pump       | $P_p = 50$ bar  |
| Max pressure tank       | $P_T = 30$ bar  |
| Max pressure work       | $P_A = 20$ bar  |
| Hysteresis              | < 3 % of the nominal pressure at tbd. Hz PWM signal   |
| Contamination level     | Min Filtration: 20/18/13<br>According to ISO 4406     |
| Fluid                   | Mineral Oil According to DIN 51524                    |
| Temperature range fluid | -40°C to +105°C                                       |
| Leakage (internal)      | < 0,05l/min (de-energized)<br>< 0,30l/min (energized) |
| Filterscreen size       | none  |

### ELECTRICAL DATA

|                  |   |                       |
|------------------|---|-----------------------|
| Voltage          | 12 V  | 24 V                  |
| Max current      | 1500 mA   | 750 mA                |
| Resistance       | 4,72 $\Omega \pm 5\%$   | 20,8 $\Omega \pm 5\%$ |
| Type of control  | Current control<br>PWM 150 Hz recommended   |                       |
| Connector        | Deutsch Connector DT04-2P   |                       |
| Protection class | up to IP6K6 / IPX9K   |                       |
| Switching time   | $t_{on} < 40$ ms ( $p_A = 0\%$ to $90\%$ )<br>$t_{off} < 40$ ms ( $p_A = 100\%$ to $10\%$ ) |                       |

\* The reported data are measured @  $P_p = 50$  bar and an oil viscosity of 32 cSt

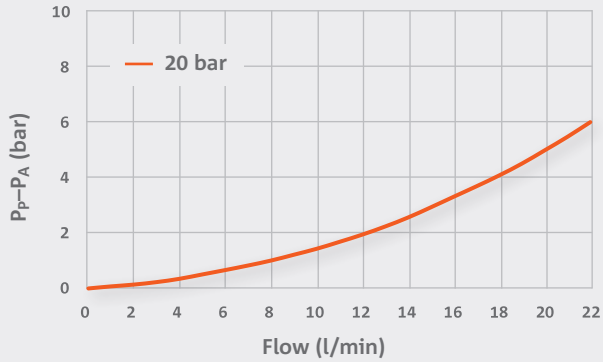
### CURRENT VS. PRESSURE (AVERAGE CHARACTERISTIC)



## FLOW CHARACTERISTICS (AVERAGE CHARACTERISTIC)

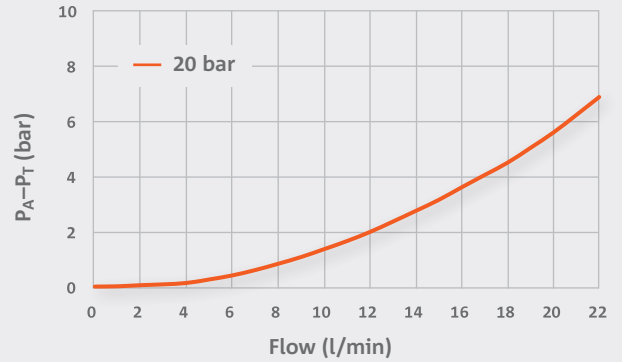
PRESSURE DROP PUMP TO CONTROL PORT (P→A)

Valve only

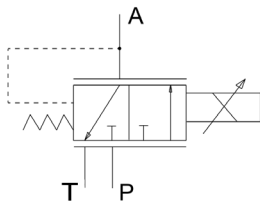


PRESSURE DROP CONTROL PORT TO TANK (A→T)

Valve only



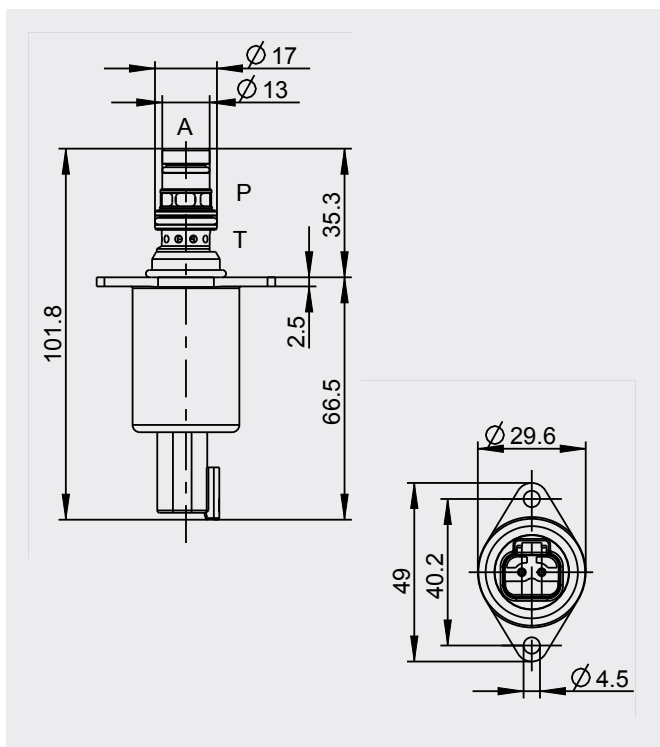
## HYDRAULIC SCHEMATIC



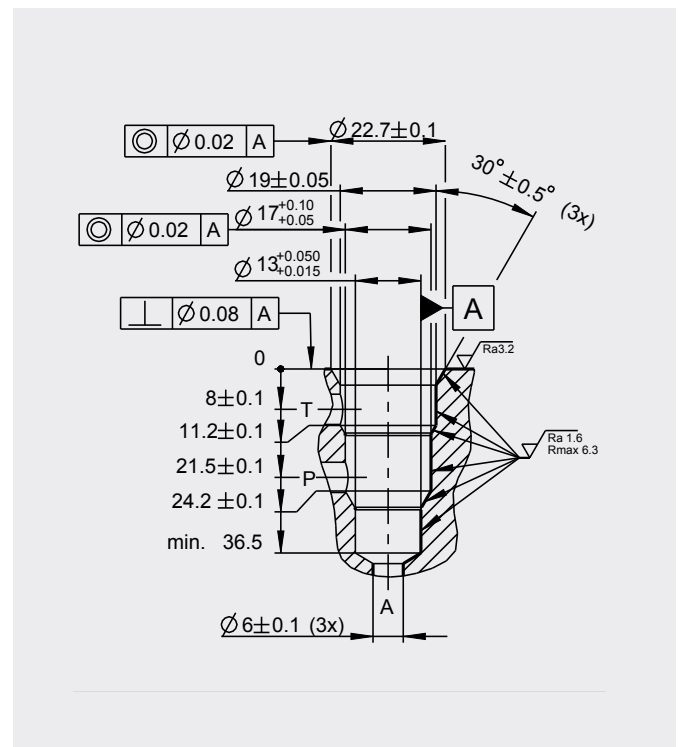
## ADDITIONAL DATA

|                                 |   |
|---------------------------------|---|
| Weight                          | approx. 235 g                                       |
| Mounting position (recommended) | any   |
| MTTF <sub>d</sub> -value        | 150 years   |
| Reference                       | Valve specifications according to Thomas LHP - tbd. |

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



## CAVITY DIMENSIONS (All dimensions in mm)



**MODEL CODE**

|         |      |    |    |     |     |    |    |    |
|---------|------|----|----|-----|-----|----|----|----|
| PPCD 08 | -001 | -b | -c | -20 | -12 | -D | -N | -0 |
|---------|------|----|----|-----|-----|----|----|----|

|                                |  |  |  |  |     |  |  |  |
|--------------------------------|--|--|--|--|-----|--|--|--|
| Valve Style                    |  |  |  |  | -24 |  |  |  |
| Version                        |  |  |  |  |     |  |  |  |
| Solenoid type                  |  |  |  |  |     |  |  |  |
| Cavity type                    |  |  |  |  |     |  |  |  |
| Control pressure range: 20 bar |  |  |  |  |     |  |  |  |
| Voltage: 12 V or 24 V          |  |  |  |  |     |  |  |  |
| Connector: D Deutsch DT04-2P   |  |  |  |  |     |  |  |  |
| Seal material: N NBR           |  |  |  |  |     |  |  |  |
| Manual override: 0 without     |  |  |  |  |     |  |  |  |

- Defined by Thomas
- Customers choice

**CONTACT DETAILS**

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**DISCLAIMER**

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