

# PCM3

## TWO AND THREE-WAY PRESSURE COMPENSATOR WITH FIXED OR VARIABLE ADJUSTMENT SERIES 10

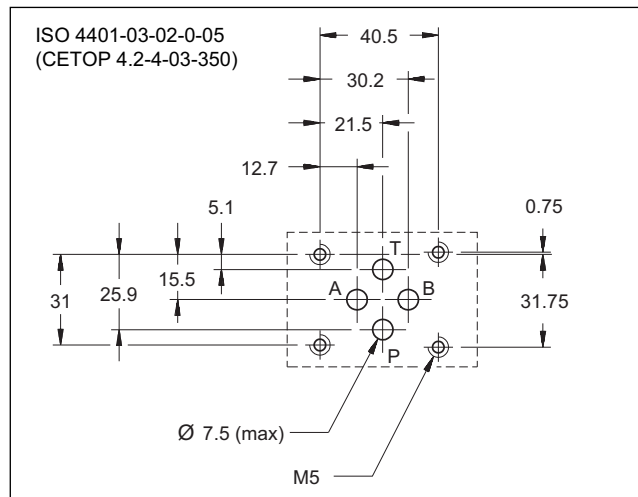
### MODULAR VERSION ISO 4401-03

p max 350 bar

Q max 40 l/min

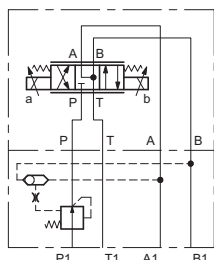


### MOUNTING INTERFACE

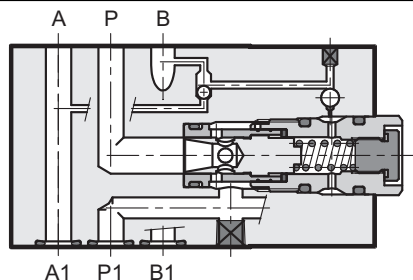


### APPLICATION EXAMPLES

Two-way compensator with fixed adjustment, combined with a proportional valve type DSE3-A\*



### OPERATING PRINCIPLE



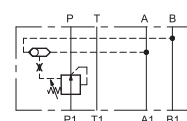
- The PCM3 valve is available as two or three-way pressure compensator, developed as modular version with mounting surface according to the ISO 4401.
- Its aim is to keep the pressure drop setting (characteristic  $\Delta p$ ) between the line P and alternatively the lines A and B, at a constant level.
- It is used together with proportional directional valves, in order to control the flow rate independently of pressure variations.
- The selection of the pilot pressure on the lines A and B is carried out automatically via a shuttle check valve built into the compensator.
- The setting of the variable adjustment compensator (characteristic  $\Delta p$ ) can be varied from 7 to 33 bar, via a socket hex adjustment screw or an adjustment knob.
- The fixed adjustment compensator is available with setting (characteristic  $\Delta p$ ) of 4 and 8 bar.

### PERFORMANCES (working with mineral oil of viscosity of 36 cSt at 50°C)

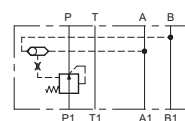
|                                                                     |                                              |                 |
|---------------------------------------------------------------------|----------------------------------------------|-----------------|
| Max operating pressure                                              | bar                                          | 350             |
| Characteristic $\Delta p$ : fixed adjustment<br>variable adjustment | bar                                          | 4 - 8<br>7 ÷ 33 |
| Max flow rate                                                       | l/min                                        | 40              |
| Ambient temperature range                                           | °C                                           | -20 / +60       |
| Fluid temperature range                                             | °C                                           | -20 / +80       |
| Fluid viscosity range                                               | cSt                                          | 10 ÷ 400        |
| Fluid contamination degree                                          | According to ISO 4406:1999<br>class 20/18/15 |                 |
| Recommended viscosity                                               | cSt                                          | 25              |
| Mass                                                                | kg                                           | 1,5             |

### HYDRAULIC SYMBOLS

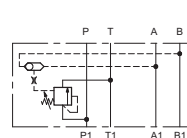
PCM3-PV/10



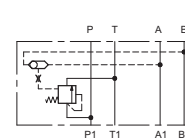
PCM3-P\*/10



PCM3-PTV/10



PCM3-PT\*/10



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Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

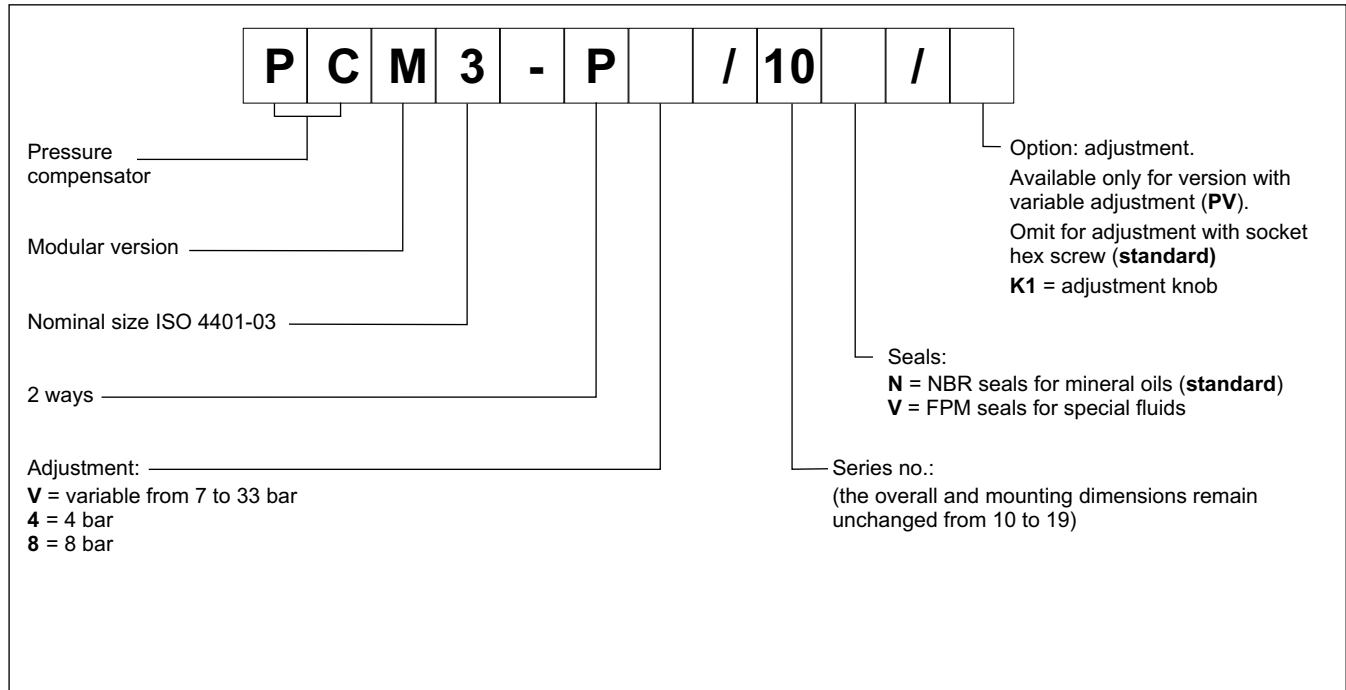
Россия (495)268-04-70

Казахстан (772)734-952-31

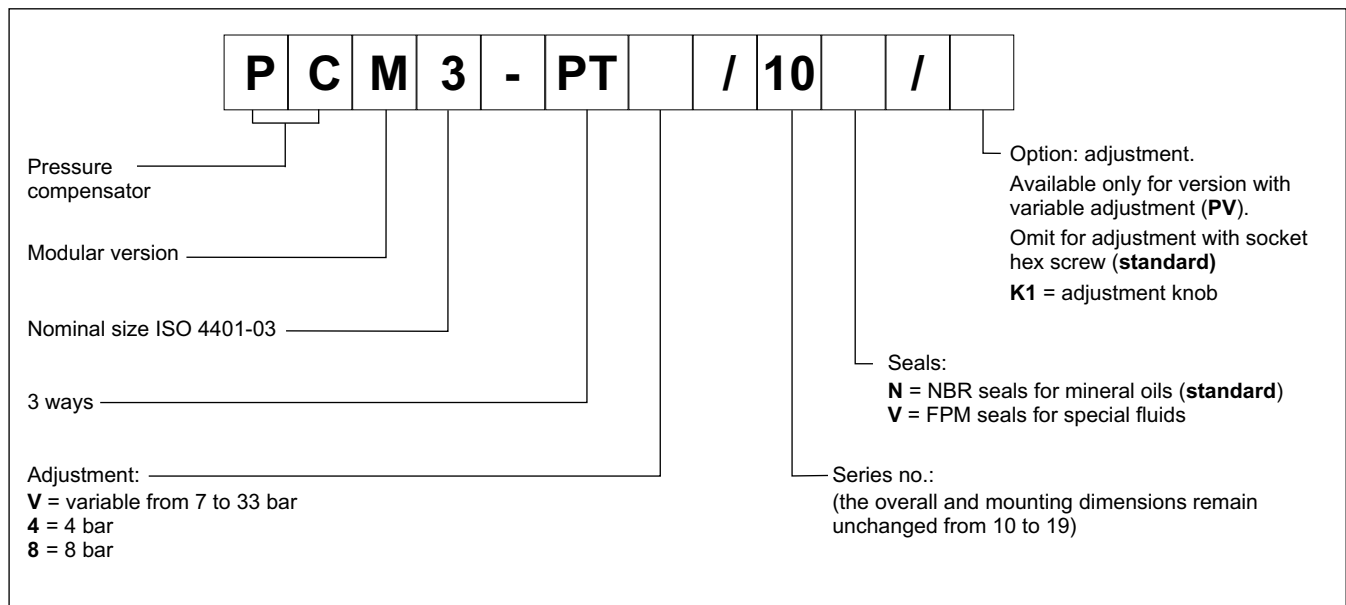


## 1 - IDENTIFICATION CODE

### 1.1 - Two-way compensator



### 1.2 - Three-way compensator

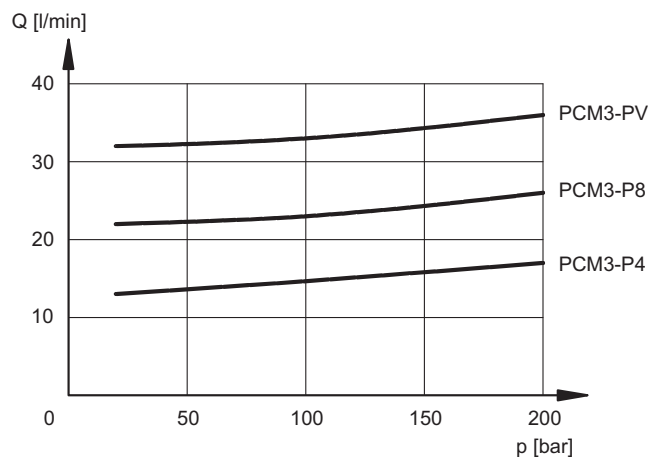


## 2 - CHARACTERISTIC CURVES

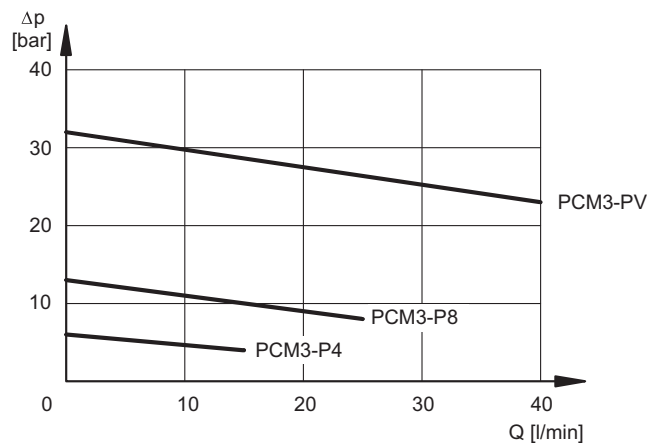
(values obtained with viscosity of 36 cSt at 50°C)

### 2.1 - Two-way compensator

FLOW RATE - PRESSURE  $Q = f(p)$

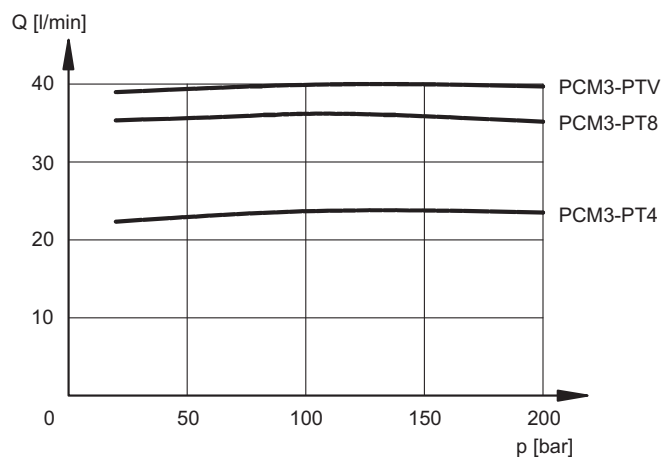


PRESSURE DROPS  $\Delta p = f(Q)$

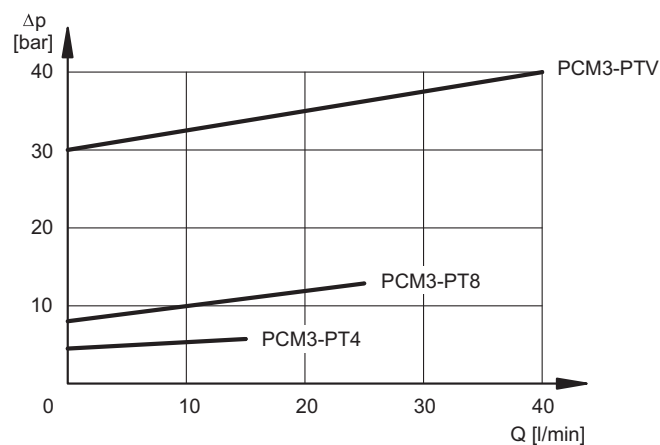


### 2.2 - Three-way compensator

FLOW RATE - PRESSURE  $Q = f(p)$



PRESSURE DROPS  $\Delta p = f(Q)$



## 3 - HYDRAULIC FLUIDS

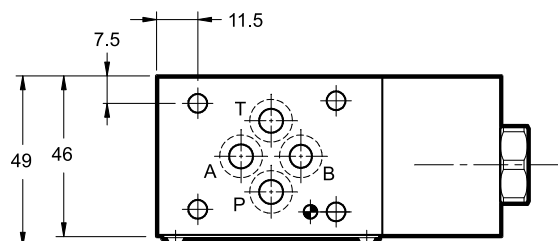
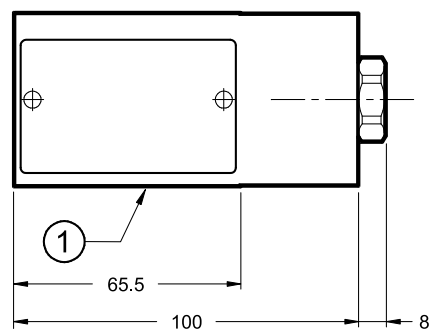
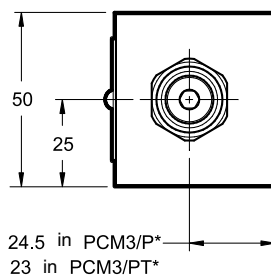
Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. With this kind of fluids, use NBR seals type (code N). With fluids HFDR type (phosphate esters) use FPM seals (code V). Using other fluid types such as HFA, HFB, HFC, please consult our technical department.

Using fluids at temperatures higher than 80 °C causes a faster degradation of the fluid itself and of the seals characteristics. The fluid must be preserved in its physical and chemical characteristics.

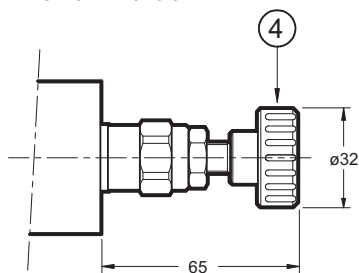
#### 4 - OVERALL AND MOUNTING DIMENSIONS

dimensions in mm

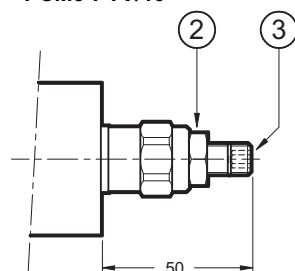
**PCM3-P\*/10**  
**PCM3-PT\*/10**



**PCM3-PV/10\*/K1**  
**PCM3-PTV/10\*/K1**



**PCM3-PV/10**  
**PCM3-PTV/10**



|   |                                                                                         |
|---|-----------------------------------------------------------------------------------------|
| 1 | Mounting surface with sealing rings:<br>4 OR type 2037 - (9.25x1.78)<br>90 shore        |
| 2 | Locking nut: spanner 17                                                                 |
| 3 | Socket hex adjustment screw:<br>spanner 5<br>Clockwise rotation to increase<br>pressure |
| 4 | Adjustment knob: <b>K1</b>                                                              |

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