

### 3 Way Pressure Compensator

TV2-103

TA1 P1

HA 5170 06/2010

Replaces HA 5170 11/2001

A1 B1 TB1

A2 B2 TB2

Size 10 (D 05) • p<sub>max</sub> ... 320 bar (4600 PSI) • Q<sub>max</sub> ... 80 L/min (21 GPM)

- ☐ Cartridge design
- Sandwich plate design for use in vertical stacking assemblies
- With integrated logic valve
- Installation dimensions to ISO 4401 and DIN 24 340-A10; NFPA T3.5.1M R1 and ANSI B 93.7 D 05
- Possiblity of LS-Signal through Adapter M10/G1/4-ED

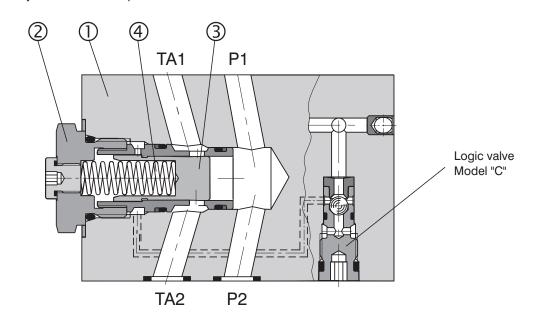


# **Functional Description**

The valve TV2-103 is designed as a sandwich and cartridge plate. Sandwich design consist of a body (1), cartridge pressure compensator (2) with control spool (3) and logic valve in model "C" - where the ports A and B are always connected through the logic valve seat with the spring side of spool. The higher pressure pushes the ball onto the seat that is affected by lower pressure. This always causes the channel with the higher pressure to be connected with the control spool spring room (4). The required pressure difference between port P and the spring room is adjusted. When the pressure difference

between P and the spring room exceeds the value set, the control spool shifts, causing the part of pressure fluid to pass from P to T until the desired pressure difference has been restored.

Usually, this pressure compensator is used in connection with a proportional directional valve. In this case, each value of the control signal a particular constant flow rate can be assigned, this being independent of load. The valve body is phosphated, all other parts are zinc coated.



## **Ordering Code** TV2 - <u>10</u> <u>3</u>/ **Pressure Compensator** Seals without designation **NBR** FPM (Viton) **Nominal size** 10 (D05) 3 Way Pressure Compensator Model function in channel A Design В S Cartridge functin in channel B C function in channels A and B Sandwich plate

#### **Technical Data** Nominal size mm (US) 10 (D 05) Maximum flow L/min (GPM) 80 (21) bar (PSI) Max. operating pressure 320 (4600) Pressure drop on valve ∆p bar (PSI) 10 (145) Hydraulic oils of power classes (HL, HLP) to DIN 51524; Hydraulic fluid (Petroleum oils (HM, HL, HLP), Phosphate ester fluids (HFD-R)) Maximum degree of fluid contamination Class 21/18/15 to ISO 4406 (1999). Weight TV2-103/MA (MB, MC) 3.70 (8.2) kg (lbs) TV2-103/S 0.15 (0.3) Valve tightening torque for design S Nm (lbf.ft) 70 (51.63) Mounting position optional (any)

# **Functional Symbols**

# Model S



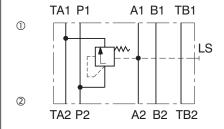
① valve side

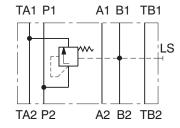
② plate side

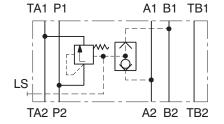
Model MA

Model MB

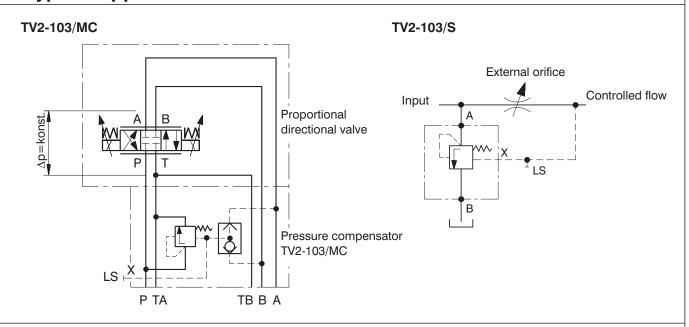
**Model MC** 







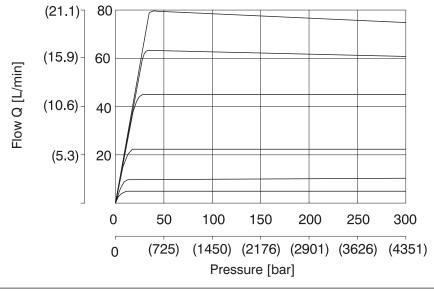
# **Typical Applications**



# **Characteristics**

Measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

The characteristic of the pressure compensator corresponds with the flow rate of a PRM2-103Z11/60 proportional directional valve.

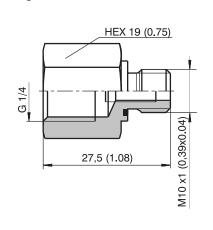


## **Valve Dimensions**

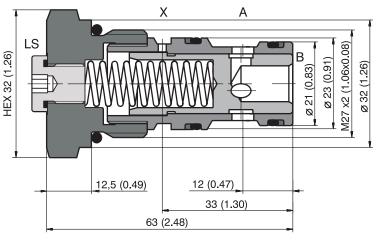
Dimensions in millimeters (inches)

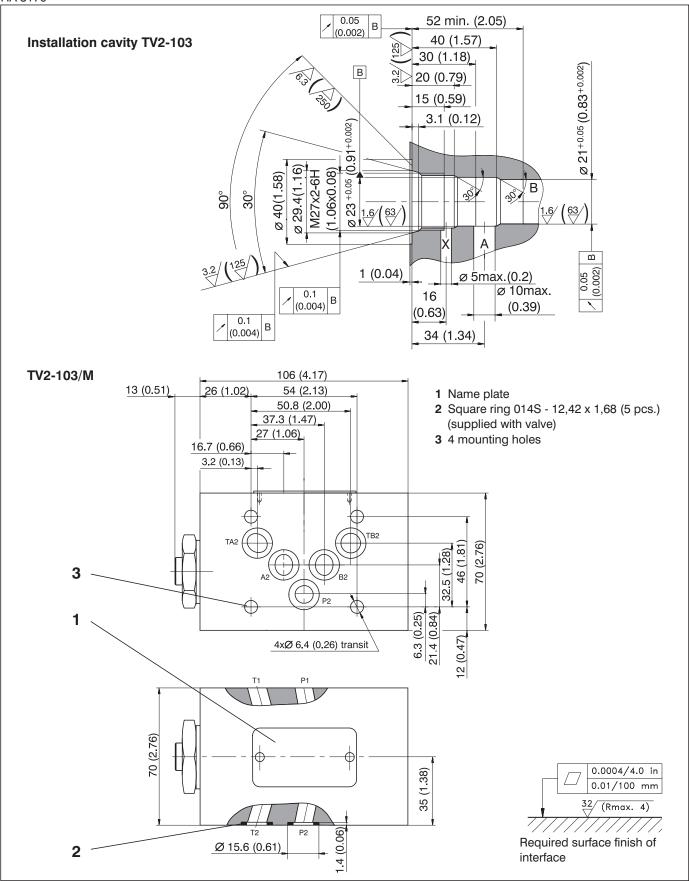
## Adaptor M10/G1/4-ED

addition of equipment for LS connection Ordering number:19860700



#### TV2-103/S





# Caution!

- The packing foil is recyclable. The protective plate can be returned to manufacturer.
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

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