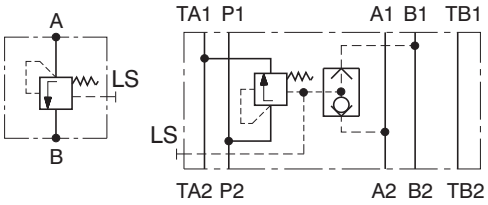
3 Way Pressure Compensator TV2-103

Size 10 (D 05) • p_{max} 350 bar (5076 PSI) • Q_{max} 80 L/min (21 GPM)

HA 5170
2/2013

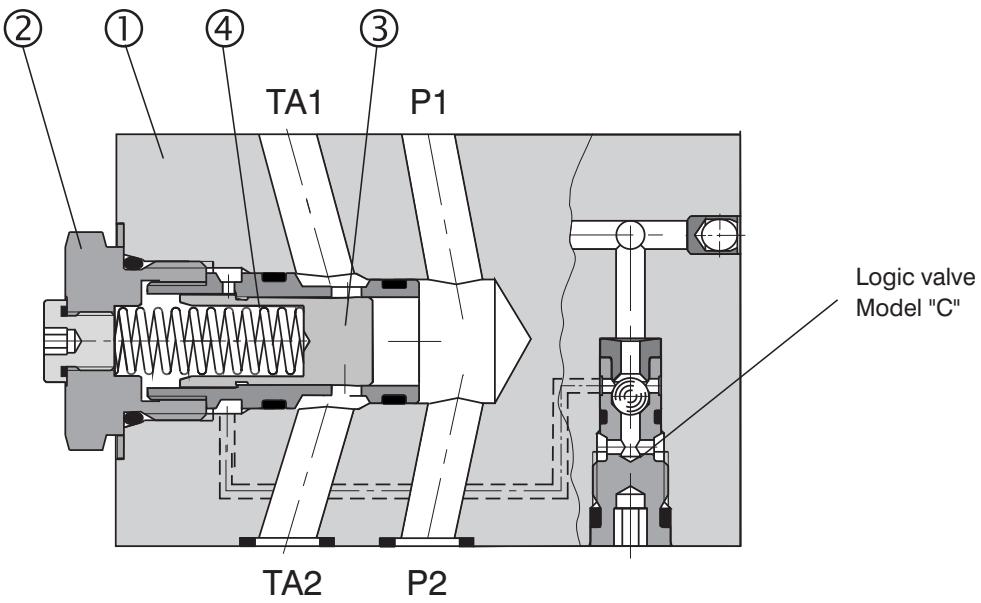
Replaces
HA 5170 6/2010



- ❑ **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 - 10 3/ □ □ □

Pressure Compensator

Nominal size — **10 (D05)**

3 Way Pressure Compensator

Design
Cartridge — **S**
Sandwich plate — **M**

Seals
without designation — NBR
V — FPM (Viton)

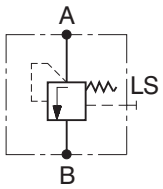
Model
A — function in channel A
B — functin in channel B
C — function in channels A and B

Technical Data

Nominal size	mm (US)	10 (D 05)
Maximum flow	L/min (GPM)	80 (21)
Max. operating pressure	bar (PSI)	350 (5076)
Pressure drop on valve Δp	bar (PSI)	10 (145)
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Maximum degree of fluid contamination		Class 21/18/15 to ISO 4406
Weight TV2-103/MA (MB, MC) TV2-103/S	kg (lbs)	3.70 (8.2) 0.15 (0.3)
Valve tightening torque for design S	Nm (lbf.ft)	70 (51.63)
Mounting position		unrestricted

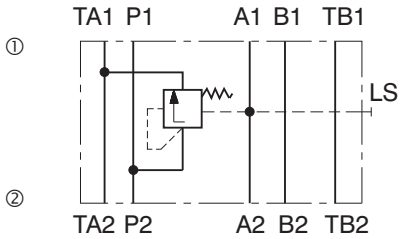
Functional Symbols

Model S

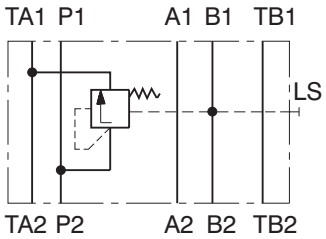


① valve side
② plate side

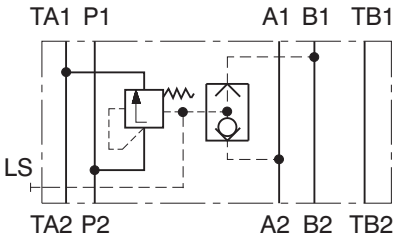
Model MA



Model MB

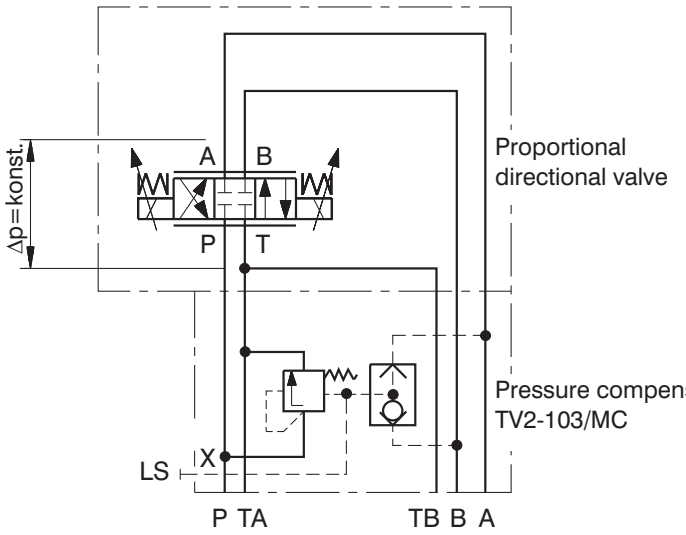


Model MC

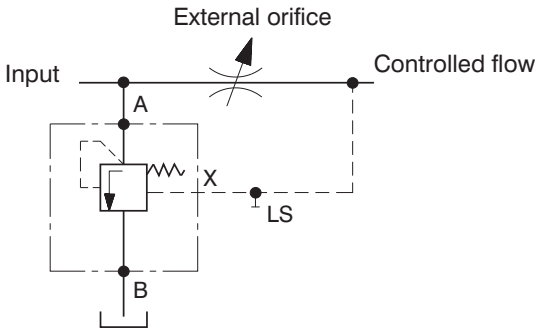


Typical Applications

TV2-103/MC



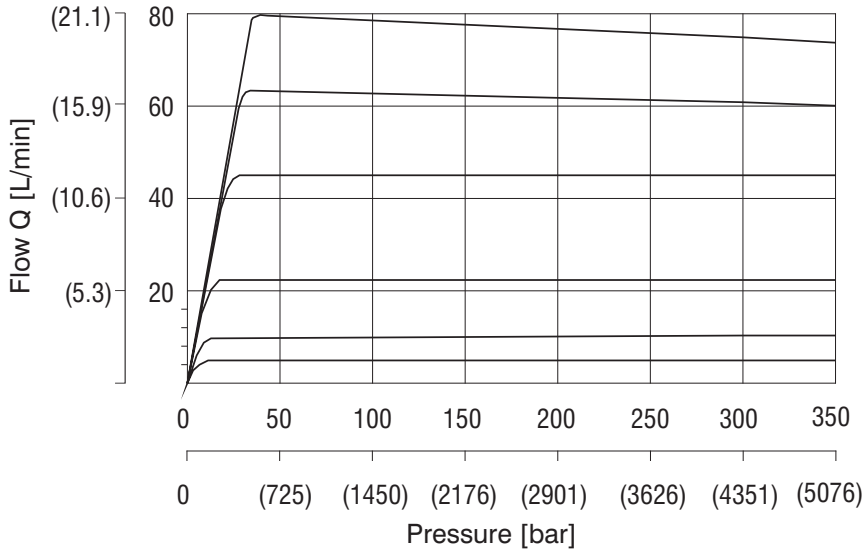
TV2-103/S



Characteristics

Measured at ν = 32 mm^2/s (156 SUS)

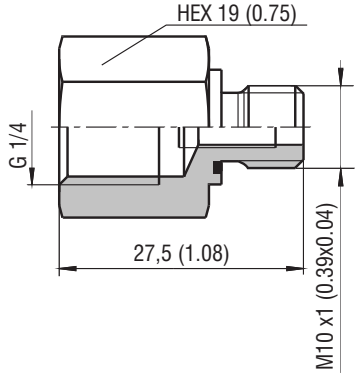
The characteristic of the pressure compensator corresponds with the flow rate of a PRM2-103Z11/60 proportional directional valve.



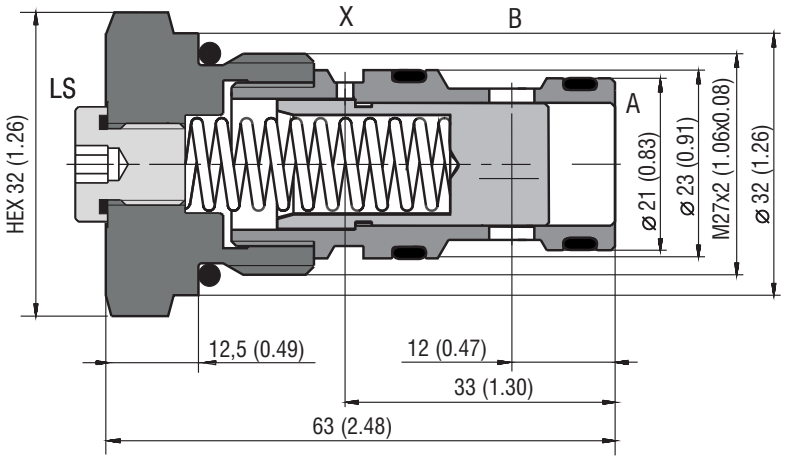
Valve Dimensions

Dimensions in millimeters (inches)

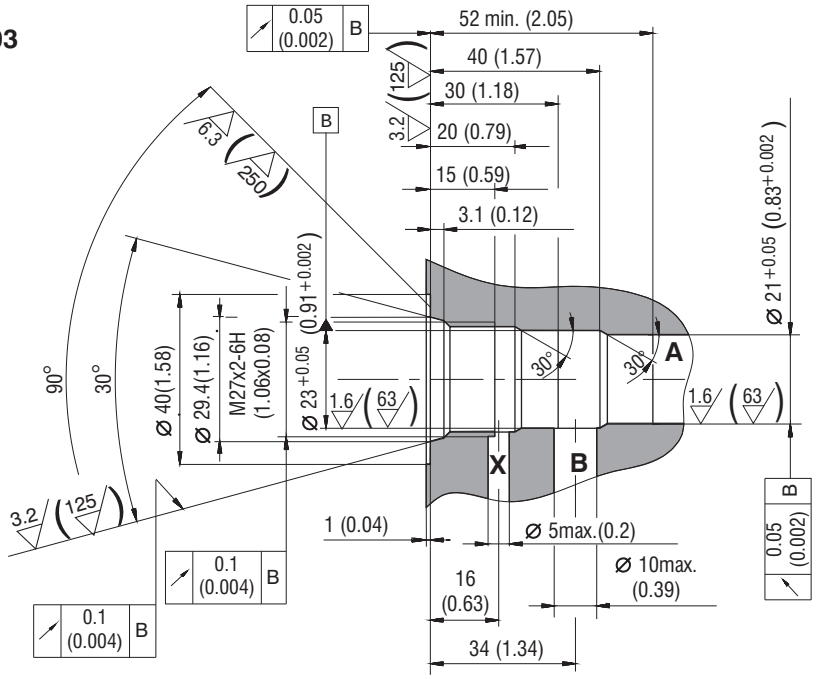
Adaptor M10/G1/4-ED
addition of equipment for LS connection
Ordering number:**19860700**



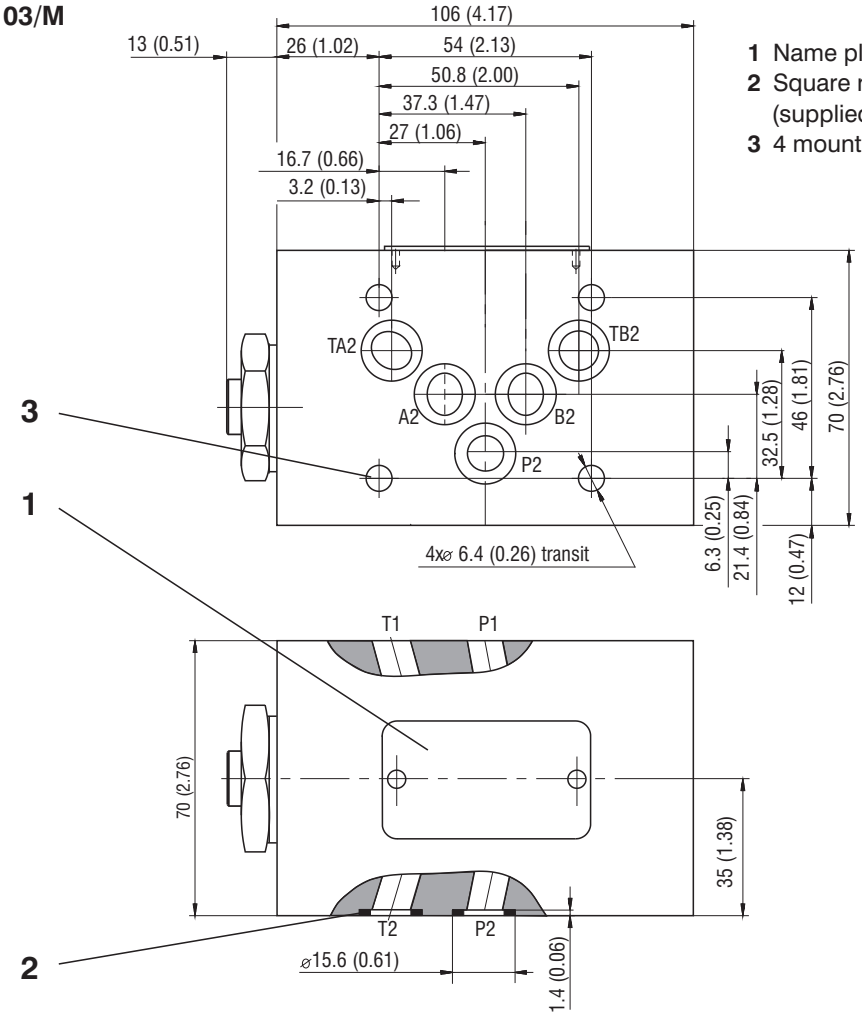
TV2-103/S



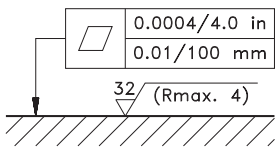
Installation cavity TV2-103



TV2-103/M



1 Name plate
2 Square ring 014S - 12,42 x 1,68 (5 pcs.) (supplied with valve)
3 4 mounting holes



Required surface finish of interface

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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