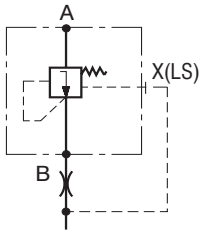


## 2-Way Pressure Compensator, Spool-Type, Direct-Acting

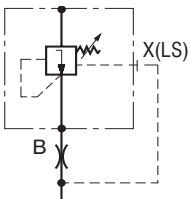
### TV2-102/S

M27x2 •  $Q_{max}$  80 l/min (21 GPM) •  $p_{max}$  350 bar (5100 PSI)

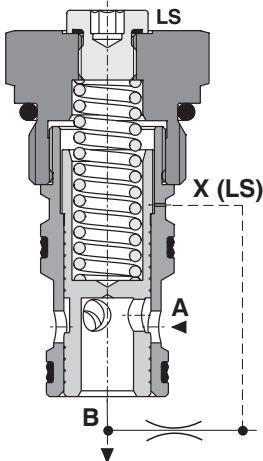
#### TV2-102/S\*C



#### TV2-102/S\*S(RP)



#### TV2-102/S\*C



#### Technical Features

- › The valve keeps the pressure drop between the inlet and the pilot connection at a constant level
- › Used as a load sensing valve with proportional directional and flow valves to control the flow rate independently of the pressure variations
- › Excellent stability throughout the flow range, rapid response to dynamic pressure changes
- › Spring setting of the variable adjustment compensator can be varied from 4 to 14 bar (58 to 203 PSI)
- › Quiet and modulate response to load changes
- › Integrated stroke limiter for reliable operation
- › Adjustable by allen key or hand knob, or delivered with fix setting
- › Hardened precision parts
- › High flow capacity
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

#### Functional Description

A normally open, direct-acting, spring loaded pressure compensator in the form of a screw-in cartridge. The outlet of the controlled directional or proportional flow valve can be connected back to the pressure compensator port X as a load sensing signal.

Typically, 2-way pressure compensators are used in serial connection with a flow restrictor valve to control raising or lowering a variable load at the same velocity.

The pressure compensator valve then keeps a nearly constant pressure difference between its pressure inlet and the pressure at the output port of the regulated flow valve.

When the pressure differential exceeds the pre-set value, the pressure compensator closes and restricts the flow to the flow valve. If there is no flow demand from the consumer, the compensator remains open.

#### Technical Data

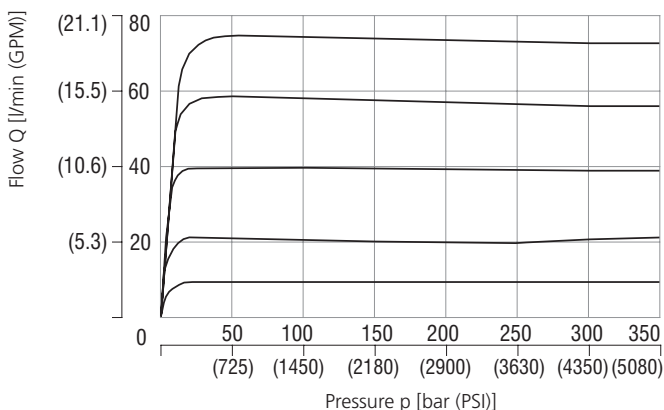
Valve size / Cartridge cavity		M27x2 / QM3
Max. operating pressure	bar (PSI)	350 (5080)
Max. flow	l/min (GPM)	80 (21.1)
Control pressure differential	bar (PSI)	4 ... 14 (58 ... 203)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)
Fluid temperature range (FPM)	°C (°F)	-20 ... +120 (-4 ... +248)
Mass	kg (lbs)	0.15 (0.3)

		Data Sheet	Type
General information		GI_0060	Products and operating conditions
Valve bodies	Sandwich mounted	SB-04(06)_0028	SB-*QM3*
Cavity details		SMT_0019	SMT-QM3*
Spare parts		SP_8010	

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

#### Regulated flow related to input pressure

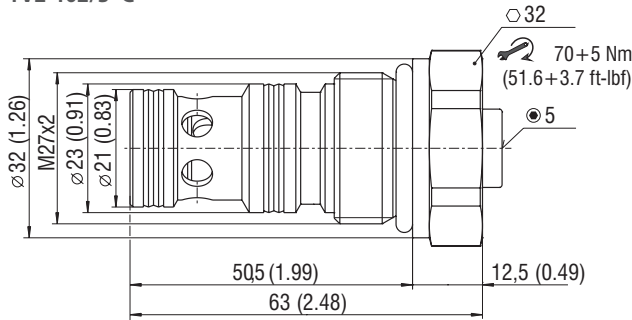
The characteristic of the pressure compensator corresponds to the flow rate of a PRM2-103Z11/60 proportional directional valve.



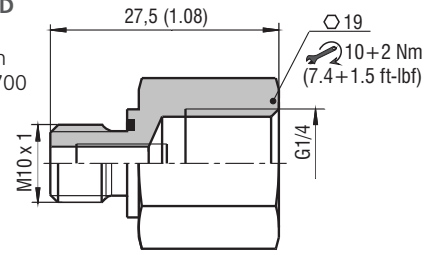
If the pressure resistance increases due to a flow rate increase, the pressure differential also has to increase in order to ensure correct regulation.

**Dimensions** in millimeters (inches)

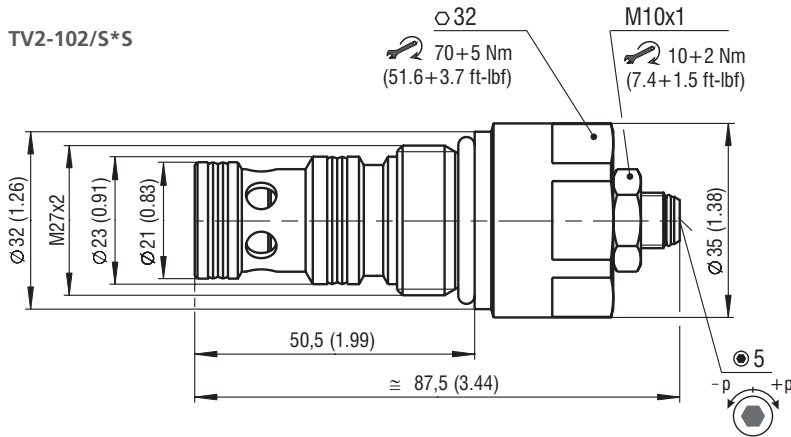
**TV2-102/S\*C**



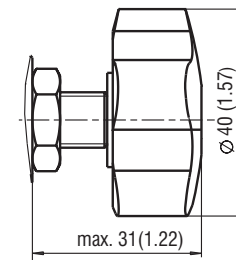
**Adapter M10x1/G1/4-ED**  
 addition of equipment  
 for external LS connection  
 Ordering number: 19860700



**TV2-102/S\*S**

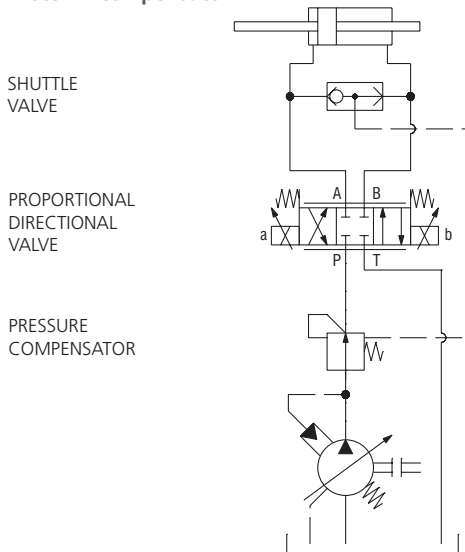


**TV2-102/S\*RP**

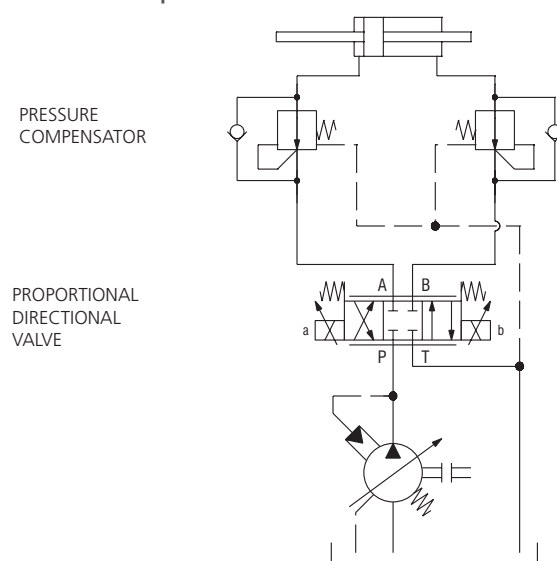


**Application Example**

**Meter-in compensator**



**Meter-out compensator**



**Ordering Code**

**2-Way pressure compensator, spool-type, direct-acting**

**Nominal size**  
 M27x2 / QM3

**2-way pressure compensator**

**Cartridge design**

**Control pressure differential**  
 4 - 12 bar (58 - 174 PSI), 10 bar (145 PSI) "C" Model **1**  
 10 - 14 bar (145 - 203 PSI), 14 bar (203 PSI) "C" Model **2**

**TV2-102/S**    -

**Surface treatment**  
 A zinc-coated (ZnCr-3), ISO 9227 (240 h)  
 B zinc-coated (ZnNi), ISO 9227 (520 h)

**Seals**  
 No designation NBR  
 V FPM (Viton)

**Adjustment option**  
 C fixed setting, not adjustable  
 S allen key (hex. 5), without protective cap  
 RP hand knob, plastic