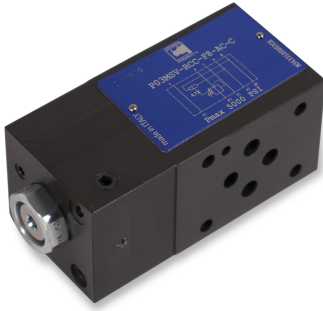




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CONTINENTAL



HYDRAULICS™

## P03MSV-RCC/BCC

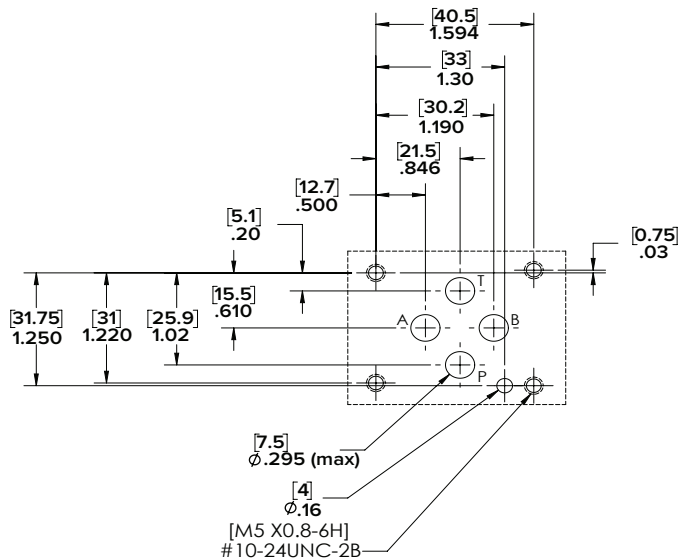
### RESTRICTIVE AND BYPASS STYLE PRESSURE COMPENSATORS

**MODULAR VERSION**  
**NFPA D03 ISO 4401-03**  
**MOUNTING INTERFACE**

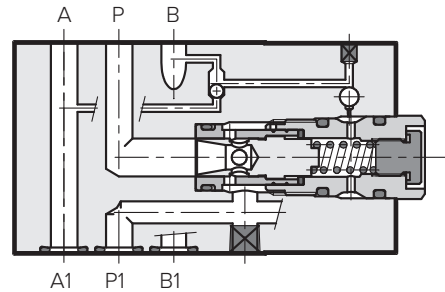
DIMENSIONS: INCHES [mm]

NFPA D03

ISO 4401-03-02-0-05



### OPERATING PRINCIPLE



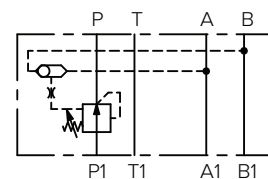
- The P03MSV-RCC/BCC pressure compensator stack valves are available in a restrictive or bypass style. The mounting interface is according to NFPA D03/ISO 4401-03 standards.
- Its function is to maintain the pressure drop across P port and the active cylinder port at a constant level.
- It is used together with a proportional directional control valve in order to control the flow rate independent of pressure variations.
- The selection of the pilot pressure on the A and B lines is carried out automatically with a shuttle check valve built into the compensator.
- The pressure drop setting of the variable adjustment compensator can be varied from 100 - 480 psi [7 - 33 bar] with a socket hex head adjustment screw.
- The fixed adjustment compensator is available with pressure drop settings of 58 psi [4 bar] and 116 psi [8 bar].

### PERFORMANCES (measured with mineral oil of viscosity 36cSt at 120°F [50°C])

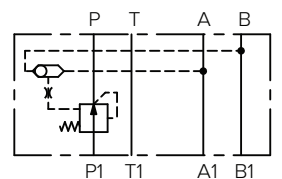
Maximum operating pressure	PSI [bar]	5000 [350]
Pressure Drop Setting: fixed adjustment variable adjustment	PSI [bar]	58 & 116 [4 & 8] 100-480 [7-33]
Max flow rate	GPM [l/min]	10 [40]
Ambient temperature range	°F [°C]	-4 to 140 [-20 to +60]
Fluid temperature range	°F [°C]	-4 to 176 [-20 to +80]
Fluid viscosity range	cSt	10 - 400
Fluid contamination degree	According to ISO 4406:1999 class 20/18/15	
Recommended viscosity	cSt	25
Mass:	lbs [kg]	3.3 [1,5]

### HYDRAULIC SYMBOLS

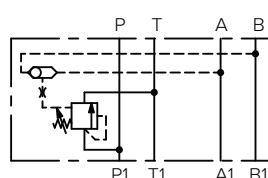
#### P03MSV-RCC-A\*



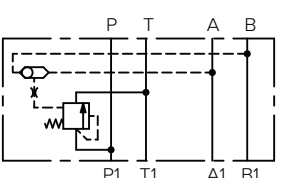
#### P03MSV-RCC-F\*



#### P03MSV-BCC-A\*



#### P03MSV-BCC-F\*

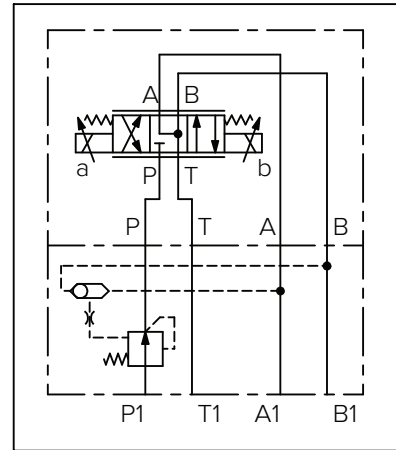


# P03MSV-RCC/BCC

## APPLICATION EXAMPLES

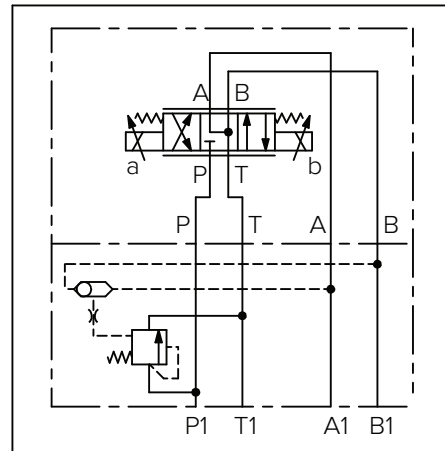
Restrictive (two-way) compensator with fixed adjustment, combined with a proportional valve model VED03M-3FC-\*

**RESTRICTIVE - 2 WAY**



Bypass (three way) compensator with fixed adjustment, combined with a proportional valve model VED03M-3FC-\*

**BYPASS - 3 WAY**



## 1 - IDENTIFICATION CODE

**P03MSV -**   **C** -   -   -   **C** - **C**

**VALVE TYPE**

PRESSURE CONTROL
------------------

**VALVE SERIES**

CODE	NFPA SIZE
03	D03 INTERFACE

**VALVE FUNCTION**

CODE	FUNCTION	AVAIL WITH PORTS
RC	RESTRICTIVE (2-way)	A & B
BC	BYPASS (3-way)	A & B

**PORT**

CODE	PORT
C	P

**PRESSURE ADJUSTMENT RANGE**

CODE	PSI	BAR
F4	58	4
F8	100	8
A33	116 to 480	7 to 33

**SEAL MATERIAL**

CODE	DESC.
A	BUNA-N
G	VITON

**MATERIAL SELECTION**

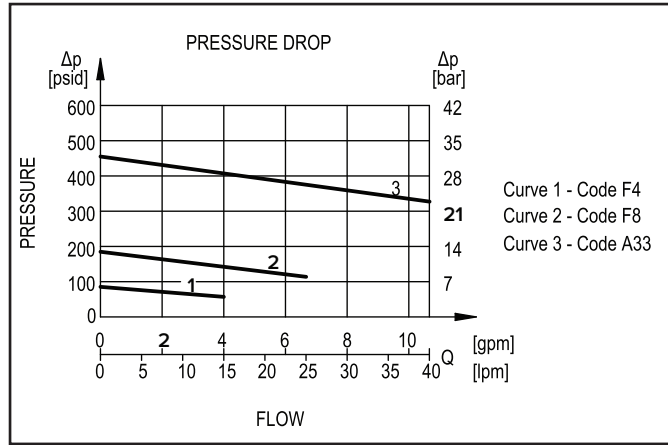
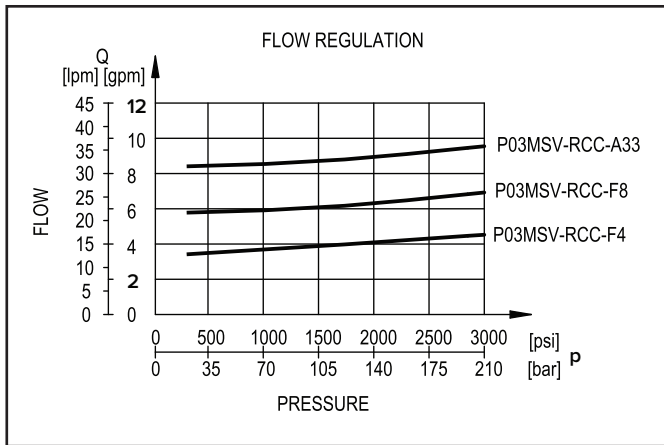
CODE	DESCRIPTION
C	CAST IRON

**DESIGN LETTER**

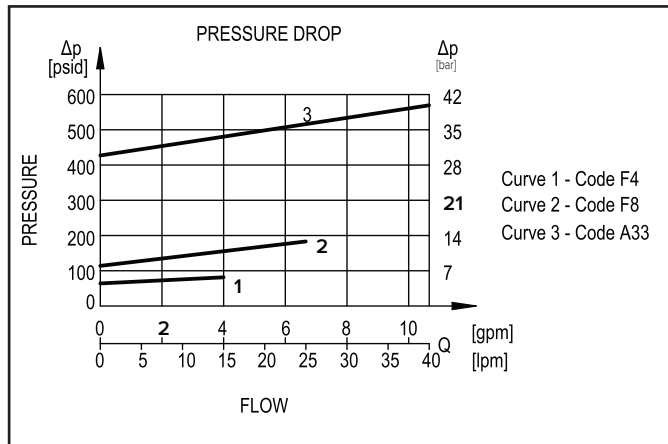
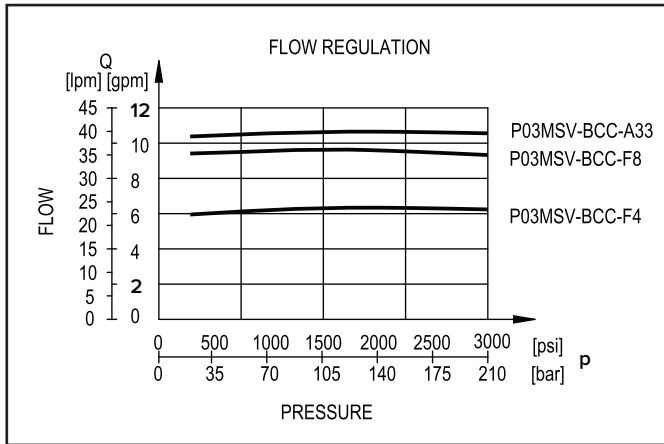
# P03MSV-RCC/BCC

## 2 CHARACTERISTIC CURVES (values obtained with viscosity of 36 cSt at 120°F [50°C])

### 2.1 RESTRICTIVE (TWO-WAY) COMPENSATOR



### 2.2 BYPASS (THREE-WAY) COMPENSATOR



## 3 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals (code A). For fluids HFDR type (phosphate esters) use FPM seals (code G). For the use of other kinds of fluid such as HFA, HFB, HFC, please consult our technical department. Using fluids at temperatures higher than 176°F [80°C] causes a faster degradation of the fluid and of the seals characteristics.

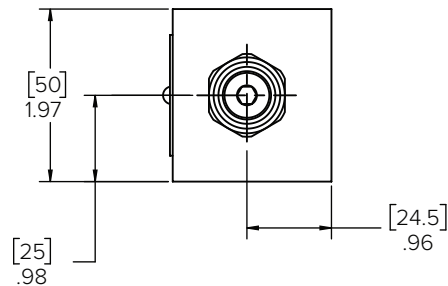
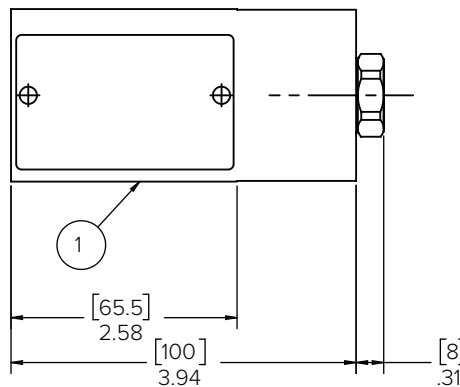
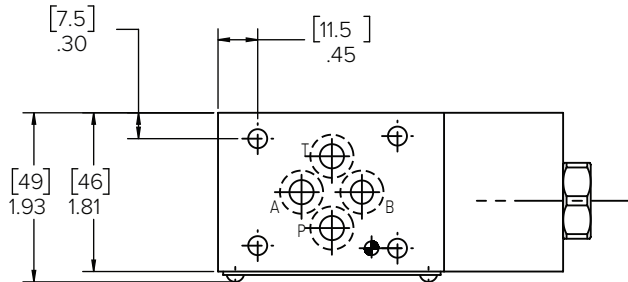
The fluid must be preserved in its physical and chemical characteristics.

## 4 - OVERALL AND MOUNTING DIMENSIONS

### P03MSV-BCC-F P03MSV-RCC-F

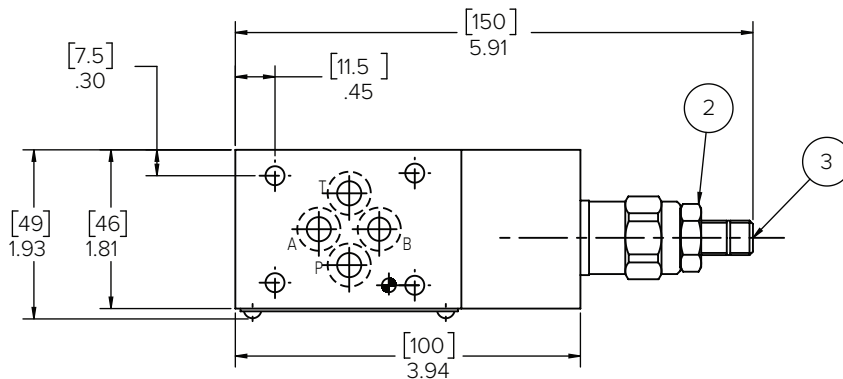
DIMENSIONS IN INCHES [mm]

FIXED ADJUSTMENT



### P03MSV-BCC-A P03MSV-RCC-A

VARIABLE ADJUSTMENT



1	Qty. 4 O-rings - size AS568-012 (.364 ID x .070 CS) 90 Shore
2	Locking nut: 17 mm wrench
3	Countersunk hex adjustment screw: 5mm allen wrench Rotate clockwise to increase pressure



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