

CONTINENTAL



CONTINENTAL HYDRAULICS

# P03MSV-PDR\*

PRESSURE REDUCING / RELIEVING VALVE



P03MSV-PDR\* - PRESSURE REDUCING / RELIEVING VALVE

# EFFICIENT

## P03MSV-PDR\*

### PRESSURE REDUCING / RELIEVING VALVE



## DESCRIPTION

The P03MSV-PDR valve is a modular three-way spool type direct operated pressure reducing / relieving valve. It is available with fixed or variable adjustment.

This valve is available with reduced pressure control on port A, B or P.

The valve construction provides good adjustment sensitivity with reduced drainage flow. The drainage is connected to line T inside the valve.

The three-way design provides protection of the secondary circuit from pressure surges since it allows a reverse flow from the actuator to the T discharge line.

The variable adjustment version is supplied with a hexagonal head adjustment screw.

The fixed adjustment version is available preset to 285 psi (20 bar) 360 psi (25 bar) or 430 psi (30 bar) pressure.

## OPERATIONS

The valve is normally open passing hydraulic fluid freely from P to P1 until the control port pressure reaches the pressure setting. The valve will shift to deliver just enough flow to maintain the controlled pressure. The valve will divert flow to the T port to relieve the control port pressure when it exceeds the pressure setting.

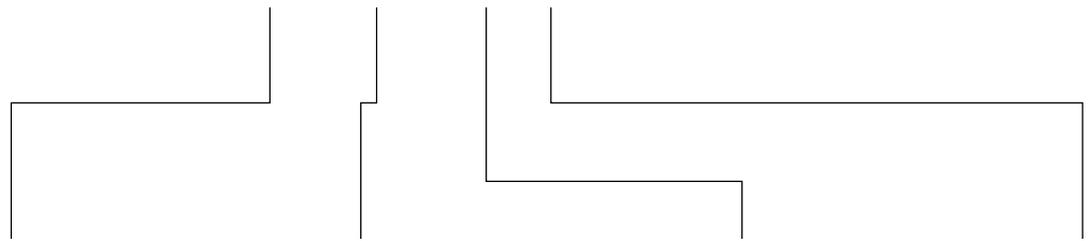
## TYPICAL PERFORMANCE SPECIFICATIONS

<b>MAXIMUM OPERATING PRESSURE</b>		5000 psi	350 bar
<b>MAXIMUM PRESSURE</b>	T Port	145 psi	10 bar
<b>MAXIMUM FLOW RATE</b>	Controlled Lines	13 gpm	50 l/min
	Free Lines	20 gpm	75 l/min
	Drainage	≤ 4.9 in <sup>3</sup> /min	≤ 0.08 l/min
<b>MOUNTING SURFACE</b>		NFPA D03 ISO 4401-03-02-0-05	
<b>WEIGHT</b>		3.1 lbs	1.4 Kg

<b>RANGE TEMPERATURES</b>	Ambient	-4 to +130 °F	-20 to +54 °C
	Fluid	-4 to +180 °F	-20 to +82 °C
<b>FLUID VISCOSITY</b>	Range	60-1900 SUS	10-400 cSt
	Recommended	120 SUS	25 cSt
<b>FLUID CONTAMINATION</b>		ISO 4406:1999 Class 20/18/15	

# IDENTIFICATION CODE

**P03MSV-PDR**  -  -  **C** -  \_\_\_\_\_ DESIGN LETTER



CONTROL PORT	
<b>A</b>	Port A
<b>B</b>	Port B
<b>P</b>	Port P

ADJUSTMENT	
<b>F28</b>	285 psi (20 bar) Fixed
<b>F36</b>	360 psi (25 bar) Fixed
<b>F43</b>	430 psi (30 bar) Fixed
<b>A50</b>	45 - 500 psi (3 - 35 bar) Adj.
<b>A100</b>	145 - 1000 psi (10 - 70 bar) Adj.
<b>A200</b>	430 - 2000 psi (30 - 140 bar) Adj.
<b>A400</b>	870 - 4000 psi (60 - 280 bar) Adj.

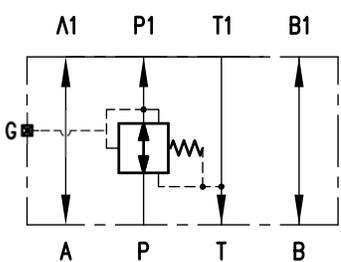
SEAL	
<b>A</b>	Buna (STD)
<b>G</b>	Viton

BODY MATERIAL	
<b>C</b>	Cast Iron

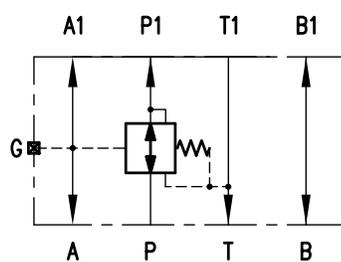
TYPICAL ORDERING CODE:  
**P03MSV-PDRP-F28-AC-C**

## AVAILABLE VERSIONS - FIXED ADJUSTMENT

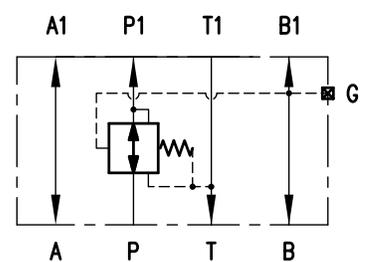
**P03MSV-PDRP-F\***



**P03MSV-PDRA-F\***

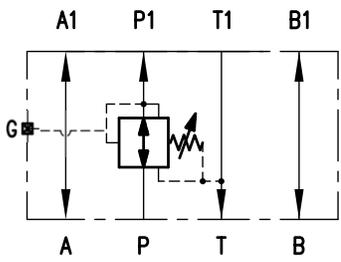


**P03MSV-PDRB-F\***

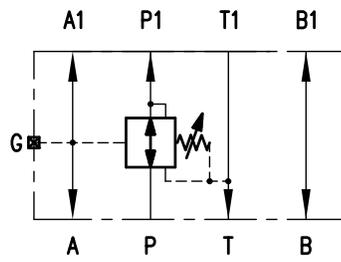


## AVAILABLE VERSIONS - VARIABLE ADJUSTMENT

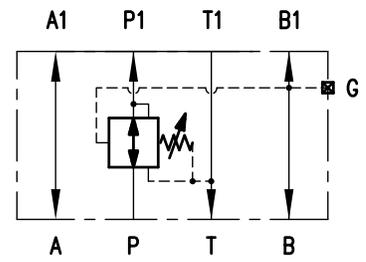
**P03MSV-PDRP-A\***



**P03MSV-PDRA-A\***

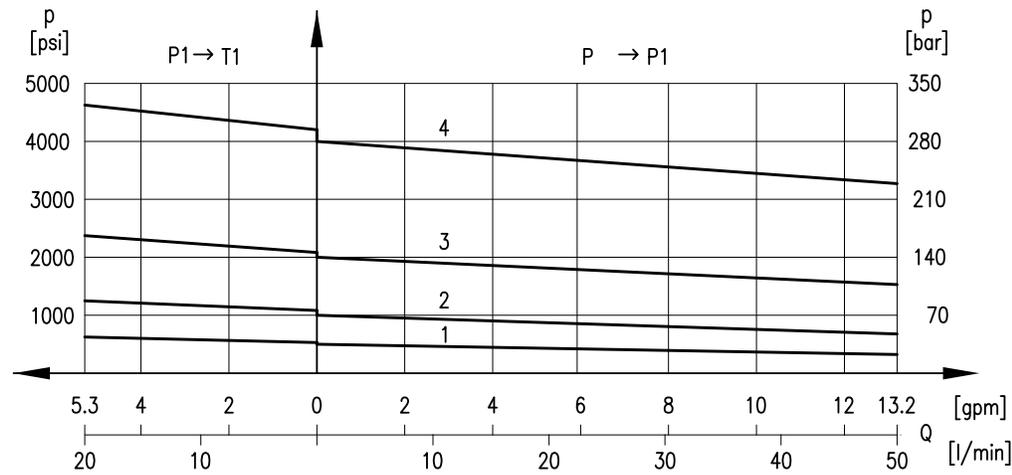


**P03MSV-PDRB-A\***



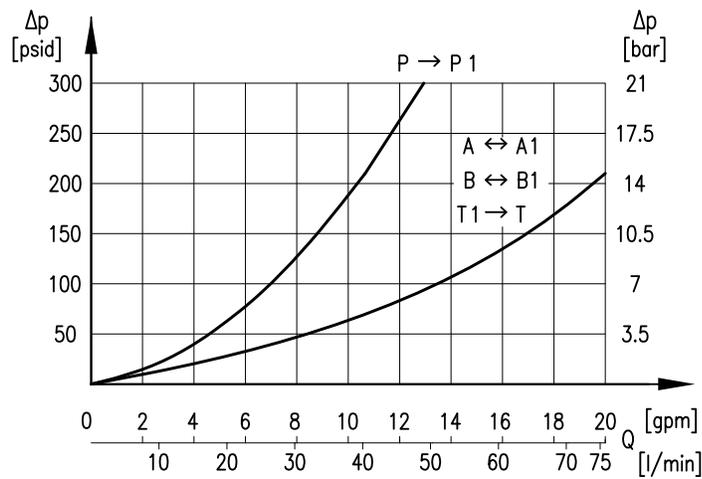
# CHARACTERISTICS - VARIABLE ADJUSTMENT

## PRESSURE REGULATION



CURVE	PRESSURE CODE
1	A50
2	A100
3	A200
4	A400

## PRESSURE DROPS $\Delta p$ - Q



**NOTE:**

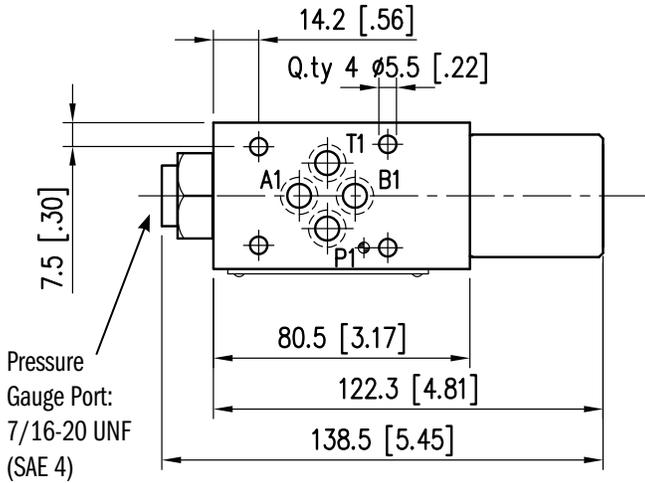
Curves obtained with mineral oil with viscosity of 170 SUS (36 cSt) at 122°F (50°C).

P03MSV-PDR\* - PRESSURE REDUCING / RELIEVING VALVE

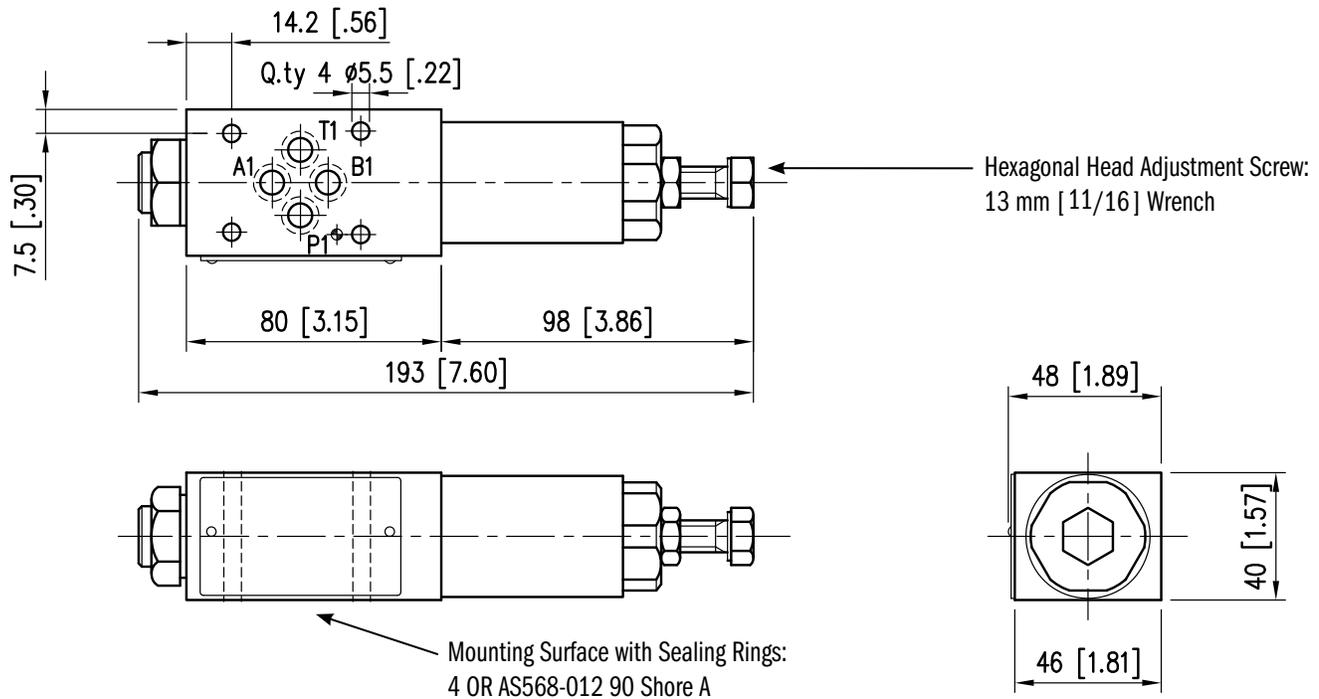
## DIMENSIONS

Dimensions in mm [IN]

### FIXED ADJUSTMENT



### VARIABLE ADJUSTMENT



### SEAL KIT

BUNA SEAL KIT	1013661
VITON SEAL KIT	1013662

PO3MSV-PDR\* - PRESSURE REDUCING / RELIEVING VALVE

POWERFUL  
ACCURATE  
INNOVATIVE  
PRECISE  
DURABLE  
EFFICIENT  
VERSATILE

## ABOUT CONTINENTAL HYDRAULICS

Rugged, durable, high-performance, efficient—the reason Continental Hydraulics' products are used in some of the most challenging applications across the globe. With a commitment to quality customer support and innovative engineering, Continental's pumps, valves, power units, mobile and custom products deliver what the markets demand. Continental has been serving the food production, brick and block, wood products, automotive and machine tool industries since 1962. Learn how our products survive some of the most harsh environments.

[SALES@CONTHYD.COM](mailto:SALES@CONTHYD.COM)

4895 12TH AVENUE EAST • SHAKOPEE, MN 55379 / PH: 952.895.6400 / FAX: 952.895.6444 / [WWW.CONTINENTALHYDRAULICS.COM](http://WWW.CONTINENTALHYDRAULICS.COM)

FORM NO. 1013019. REV. 12/2011. © 2011 CONTINENTAL HYDRAULICS. ALL RIGHTS RESERVED. PRODUCT SPECIFICATIONS AND APPEARANCE ARE SUBJECT TO CHANGE WITHOUT NOTICE.

CONTINENTAL



HYDRAULICS