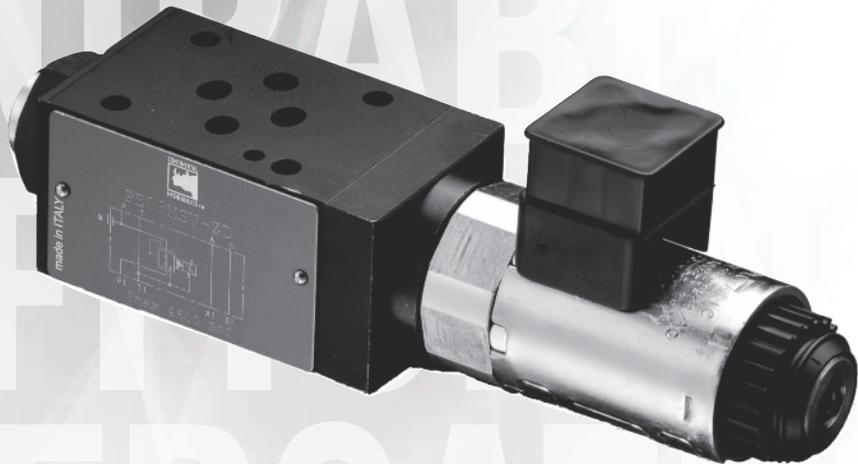




CONTINENTAL HYDRAULICS

VEP03MSV-PDRP

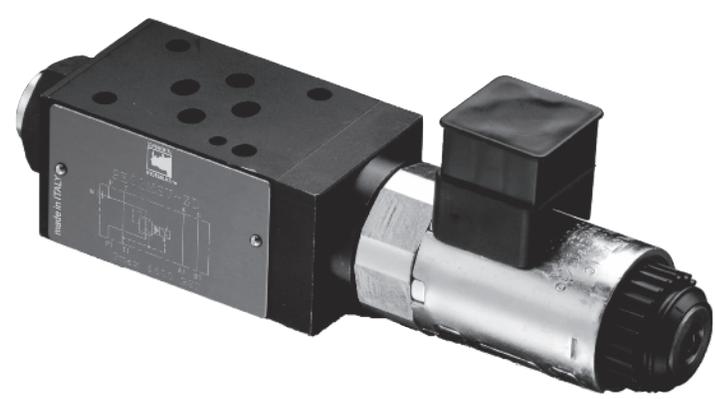
3-WAY PROPORTIONAL PRESSURE REDUCING/RELIEVING VALVES



VEP03MSV-PDRP - 3-WAY PROPORTIONAL PRESSURE REDUCING/RELIEVING VALVES

VEP03MSV-PDRP

3-WAY PROPORTIONAL PRESSURE REDUCING/RELIEVING VALVES



DESCRIPTION

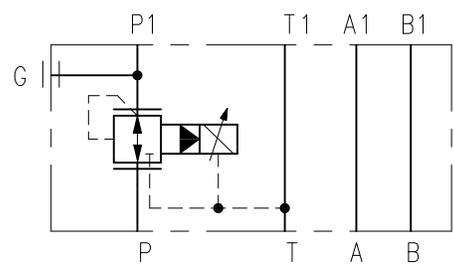
The VEP03MSV-PDRP is a D03 modular three-way proportional pressure reducing/relieving valve conform to NFPA D03/ISO 4401 mounting standards.

OPERATION

These valves are designed to provide remote variable pressure control in the pressure port of a secondary circuit. The controlled pressure is proportional to the amount of current supplied to the solenoid.

As flow demands change, the valve opening will modulate to maintain the circuit pressure. The VEP03MSV-PDRP will also relieve the tank to vent a load induced pressure spike. In event of a loss in electrical power, the valve spool will return to the low pressure condition.

The proportional solenoids can be driven by a variable current power supply or by use of external Power Amplifier Cards designed to maximize the valve performance.



TYPICAL PERFORMANCE SPECIFICATIONS

MAXIMUM OPERATING PRESSURE	P - A - B Ports	4600 psi	320 bar
	T Port	30 psi	2 bar
MAXIMUM FLOW RATE	Controlled line	8 gpm	30 l/min
	Free line	13.2 gpm	50 l/min
	Drainage	24 in ³ /min	0.4 l/min
MOUNTING SURFACE	NFPA D03 ISO 4401-03-02-0-05		
STEP RESPONSE WITH Q = 6.6 gpm	0 → 100%	100 ms	
	100 → 0%	80 ms	
HYSTERESIS WITH PWM 200	% of p nom	< 3%	
REPEATABILITY	% of p nom	< ± 1.5%	
POWER SUPPLY	12V DC or 24V DC		
CONNECTION	DIN 43650		
PROTECTION	IEC 60529	IP 65	
WEIGHT		4 lbs	1.8 kg

IDENTIFICATION CODE

VEP03MSV - PDRP - [] - [] - K1 [] D - [] _____ DESIGN LETTER

Control on 'P' port

PRESSURE RANGE	
70	100 - 1000 psi (7 - 70 bar)
150	107 - 2175 psi (7.5 - 150 bar)
230	114 - 3300 psi (8 - 230 bar)

SEAL	
A	Buna (STD)
G	Viton

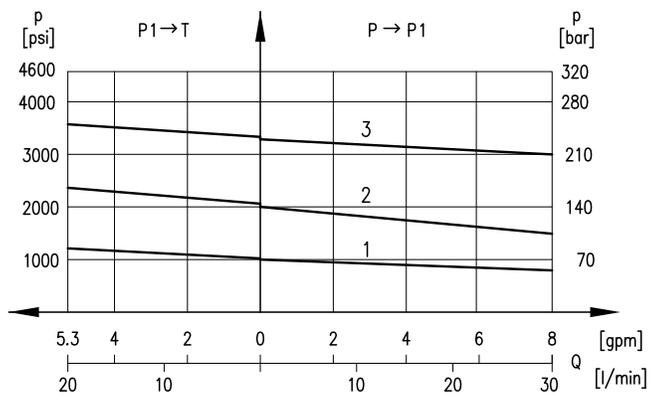
CONNECTION	
K1	DIN 43650

VOLTAGE	
12	12V DC
24	24V DC

TYPICAL ORDERING CODE:
VEP03MSV-PDRP-70-A-K112D-A

CHARACTERISTICS - VARIABLE ADJUSTMENT

PRESSURE REGULATION



CURVE	PRESSURE CODE
1	070
2	150
3	230

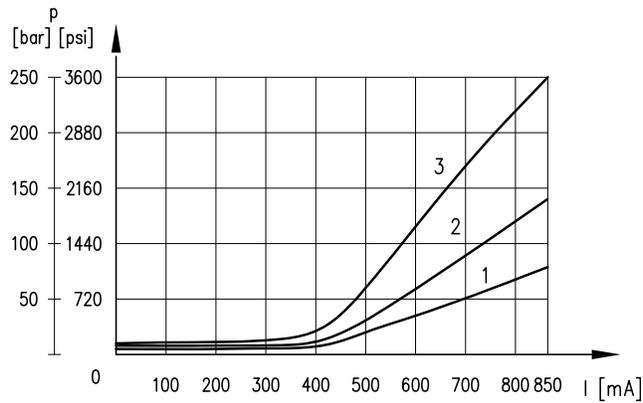
NOTES:

1. Curves obtained with mineral oil viscosity of 170 sus (36 cSt) at 122°F (50°C).
2. The curves have been obtained with inlet pressure 725 psi (50 bar) higher than the nominal pressure. Pressure values in P1 higher than 725 psi (50 bar) reduce flow values considerably.



CHARACTERISTICS - VARIABLE ADJUSTMENT

PRESSURE CONTROL

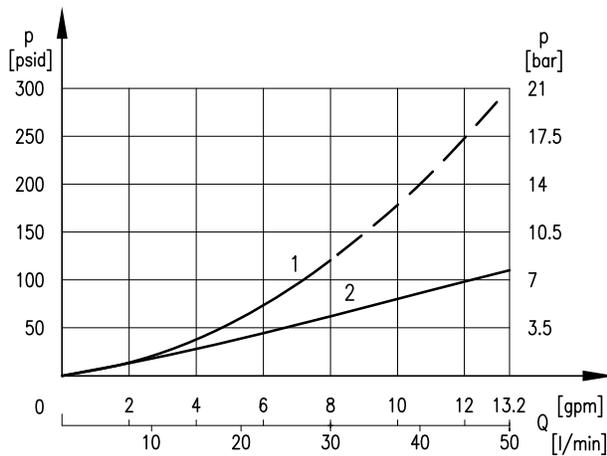


CURVE	PRESSURE CODE
1	070
2	150
3	230

NOTES:

1. Curves obtained with mineral oil viscosity of 170 sus (36 cSt) at 122°F (50°C).
2. The curves have been obtained without flow on the A and B ports.

PRESSURE DROPS



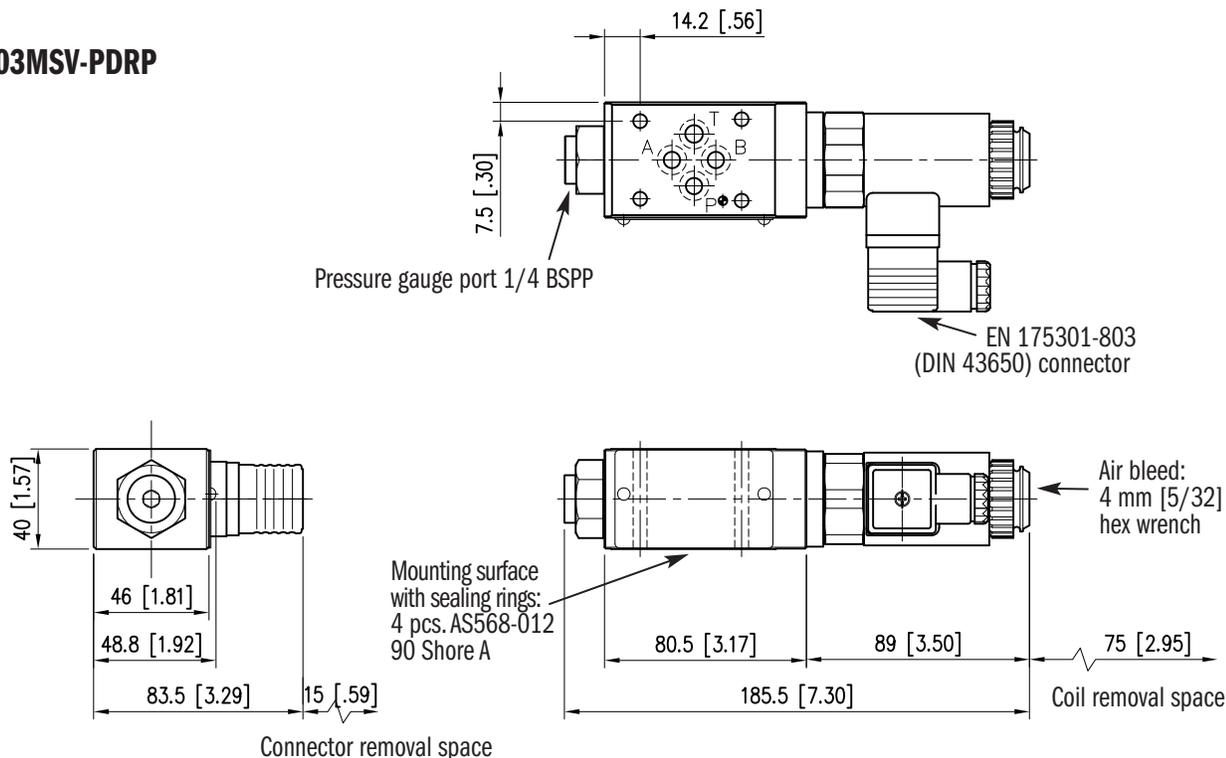
NOTES:

1. Pressure drops P → P1
2. Pressure drops on through ducts (ex: A ↔ A1)

OVERALL AND MOUNTING DIMENSIONS

Dimensions in mm [IN]

VEP03MSV-PDRP



ELECTRICAL CHARACTERISTICS

The proportional solenoid consists of tube and coil. The coil is mounted on the tube and fastened to it by a ring retainer.

The coils may be mounted in any position depending on the installation requirements.

The declared IP degree is guaranteed for all valves only if the connector has been wired and mounted correctly on the coil.

ACCESSORY ELECTRONICS

Some external digital amplifiers are available to be coupled to the valve for better control and to improve the valve performances.

See Continental Hydraulics Control Amplifier Catalog for products to match your requirements.

VEA-3F-A: DIN Connector - Black

NOMINAL VOLTAGE	V DC	12	24
RESISTANCE AT 68° F		3.66 Ω	16.6 Ω
CURRENT AT 68° F		1.9 A	0.85 A
DUTY CYCLE		100%	
ELECTROMAGNETIC COMPATIBILITY (EMC)		European Directive 2004/108/EC	
PROTECTION AGAINST ATMOSPHERIC AGENTS	IEC 60529	IP 65	
CLASS OF PROTECTION FOR INSULATION	Copper Wire	Class H (356° F)	
	Coil	Class F (311° F)	



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CURATE
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URABLE
EFFICIENT
ERCATTLE

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.

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