

NEW VEP03M-3

PRESSURE CONTROL VALVES

PRESSURE REDUCING/RELIEVING, SUBPLATE MOUNTED



DESCRIPTION

These proportional valves are direct operated pressure reducing valves. They can be used to control pressure in parts of a circuit. This valve incorporates a pressure control spool with a pressure sensing piston to sense downstream pressure.

The single solenoid version, code B, will allow fluid flow from P port to B port when an electrical signal is applied. If the signal is decreased to zero, P port will be blocked and B port opened to the tank port. The code A version will allow flow from P to A.

The double solenoid version, code C, will allow flow from P to A (or P to B) when the signal is applied to the proper solenoid. A and B ports are used alternately for pressure reduction in the respective port. P and T ports are common.

These valves comply with the following European Community Directive:

89/336/EEC ECM Directive

Provided that all cables to the proportional control valve are shielded, and the shield is terminated at both ends.

The following standards were used to verify compliance with the Directives:

EN 55081-2, EN 50082-2, EN 55011: Class A, EN 61000-4-2, ENV 50140, E 61000-4-4, EN-50204, EN 50140

These devices are considered to be components, and will be incorporated into a larger system. The devices listed above are not to be placed into service until the machinery into which they are to be incorporated has been declared in conformity with the provisions of all relevant European Community Directives, and the completed machinery is appropriately CE marked.

TYPICAL PERFORMANCE SPECIFICATIONS

MOUNTING SURFACE	NFPA/T3.5.1M R2-2002 (D03) ISO/4401 SIZE 03		
MOUNTING POSITION	Unrestricted (Horizontal preferred)		
MAXIMUM OPERATING PRESSURE	P, A, B Ports T Port	4560 psi 400 psi	315 bar 28 bar
FLUID OPERATING VISCOSITY	30 - 350 SUS (0.3 - 75.5 Cs) Acceptable start-up 4000 SUS (863.0 Cs)		
HYSTERESIS (open loop)	With Dither	3%	
THRESHOLD (open loop)	Nominal w/Dither	3%	
REPEATABILITY	With Dither	1%	
VOLTAGE (Nominal)	Code 12	12 VDC	
	Code 24	24 VDC	
CURRENT (Maximum)	Code 12	2.2 Amp	
	Code 24	1.1 Amp	
WATTAGE (I ² R) @ 68° F. (20° C.) (Continuous)	Code 12	19	
	Code 24	19	
COIL RESISTANCE @ 68° F. (20° C.)	Code 12	3.8 Ohms	
	Code 24	15.2 Ohms	
INTERNAL LEAKAGE @ 0 VDC	@ 1000 psi (69 bar) ΔP	8 in. ³ /min. typical (131.1 ml/min.)	
FLUID TEMPERATURE RANGE	*Max. 150° F. (65° C.) For safety, over 130° F. (54° C.) is not recommended		
WEIGHT	Code A or B	4.3 lbs.	1.9 kg
	Code C	6.0 lbs.	2.7 kg
FILTRATION	ISO Code 18/16/13		

NOTE: Data taken with fluid temperature at 120°F. (49°C.) and viscosity at 100 SUS (20.6 Cs), using Continental Hydraulics ECM4 electronic controller.

* Temperatures over 150°F. (65°C.) may affect valve performance.

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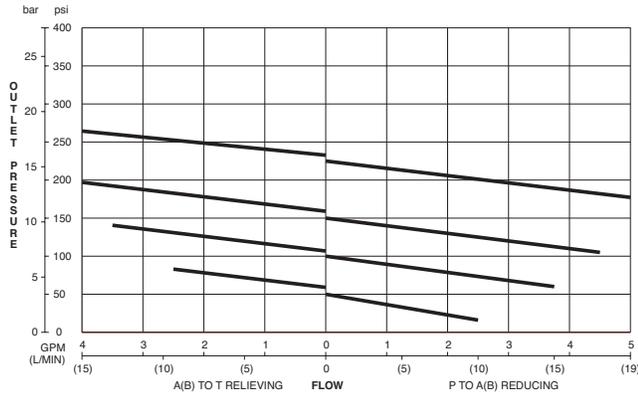
PRESSURE REDUCING/RELIEVING, SUBPLATE MOUNTED



PRESSURE VS. FLOW CURVES

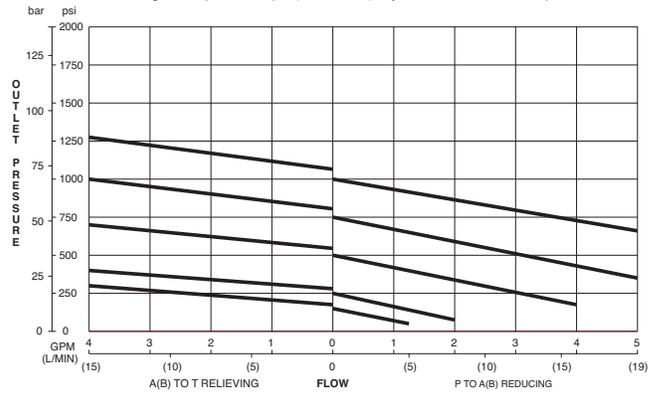
CODE 15

Control Pressure Range -- 29 psi to 217 psi (2 to 15 bar), System Pressure = 1500 psi



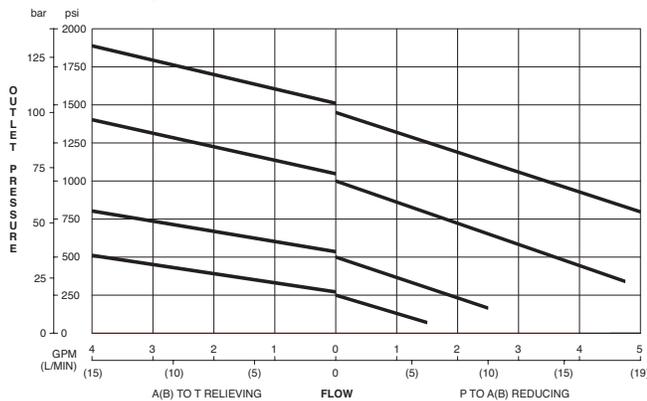
CODE 65

Control Pressure Range -- 29 psi to 940 psi (2 to 65 bar), System Pressure = 1500 psi



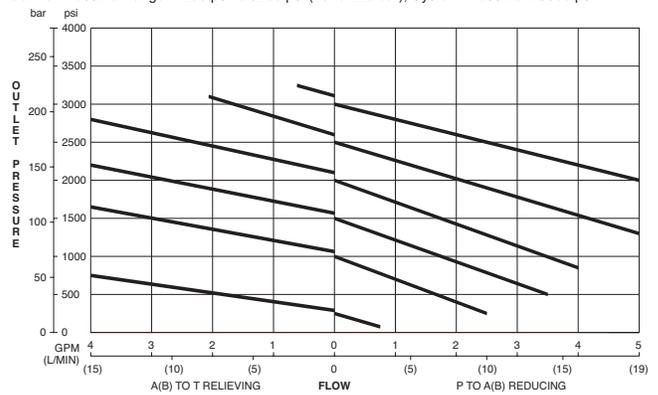
CODE 100

Control Pressure Range -- 72 psi to 1450 psi (5 to 100 bar), System Pressure = 3000 psi



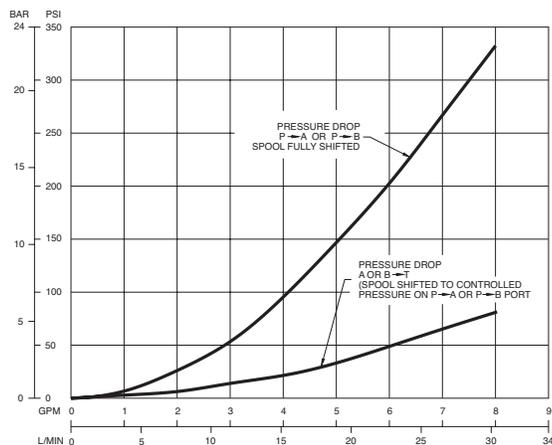
CODE 225

Control Pressure Range -- 290 psi to 3265 psi (20 to 225 bar), System Pressure = 3300 psi



PRESSURE DROP CURVES

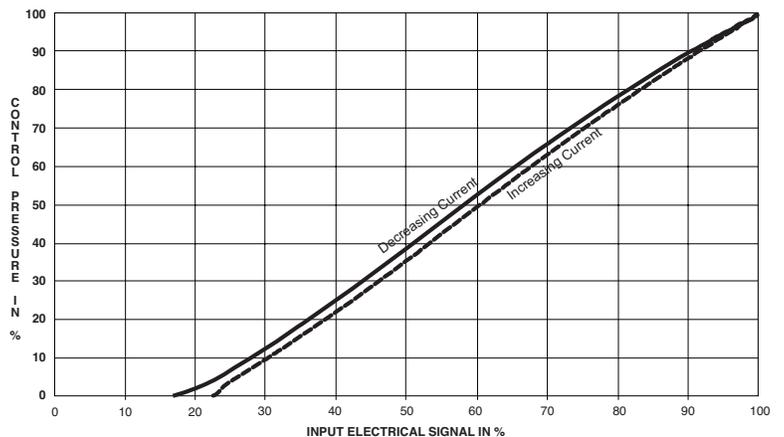
100 sus oil @ +120° F



CONTROL PRESSURE vs INPUT SIGNAL

Curve shown @ Zero Flow (Open Loop)

100 sus oil @ +120° F

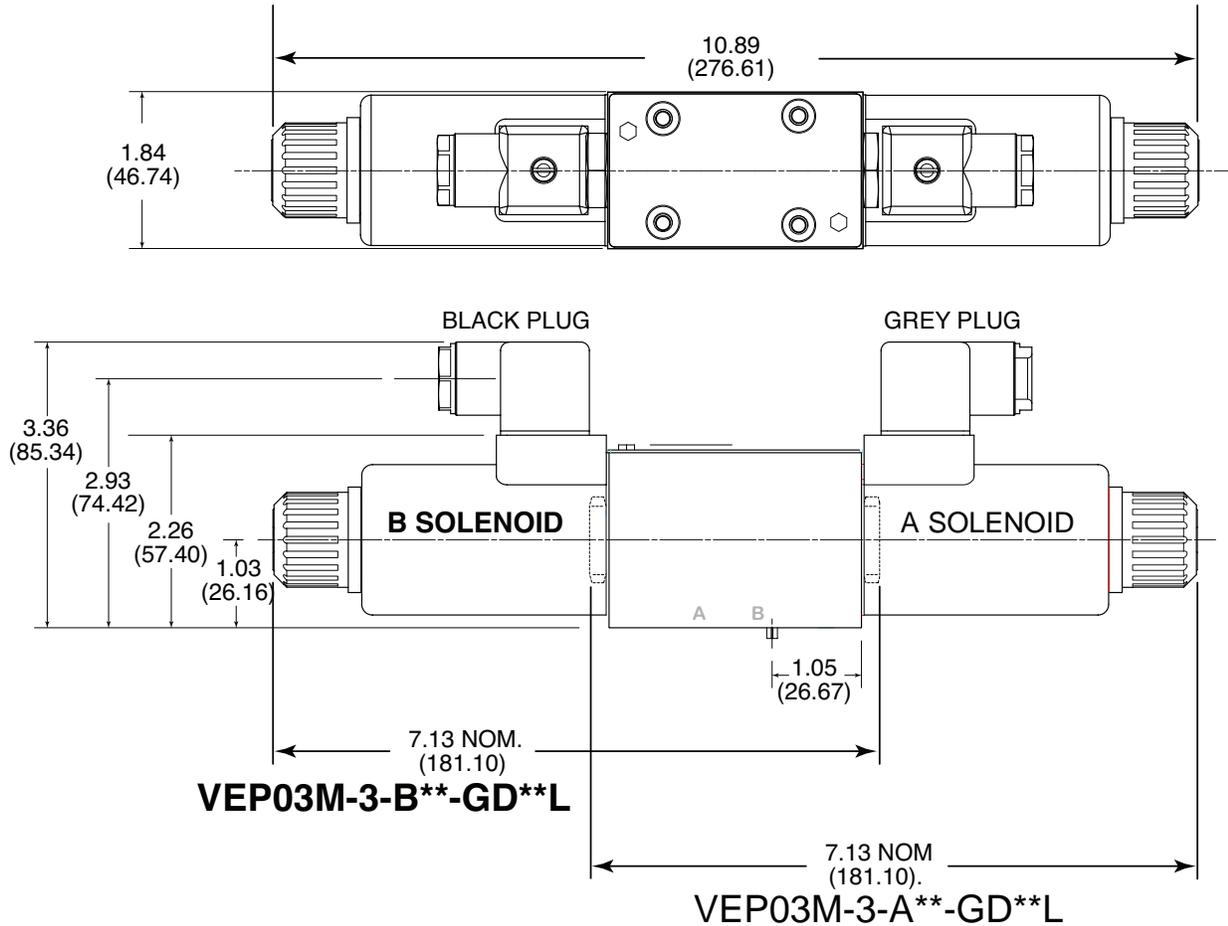


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DIN CONNECTORS DIMENSIONS

Shown in: Inches
 (millimeters)

NFPA D03 Size

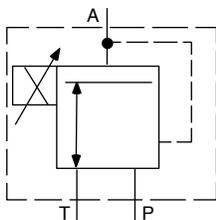


NOTE:

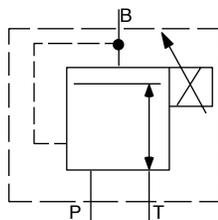
Four (4) mounting bolts are torqued to 10 - 12 lbs.-ft. (13.5 - 16.3 Nm).

VEP03M-3 SCHEMATICS

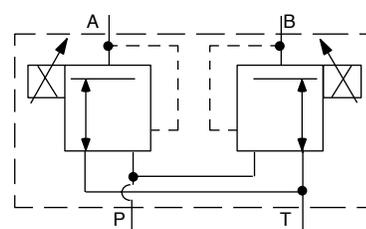
Code A



Code B



Code C



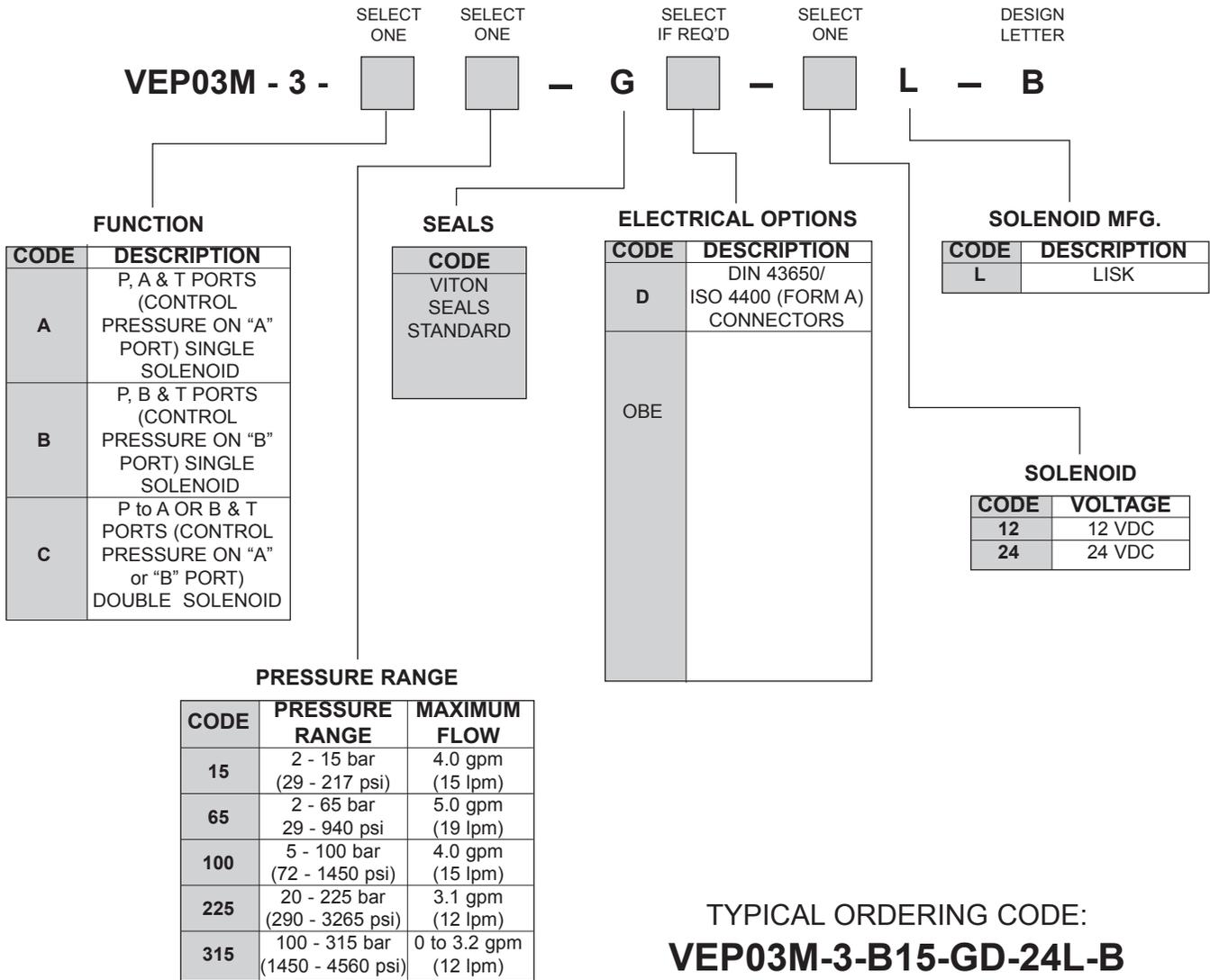
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ORDERING CODE INFORMATION



TYPICAL ORDERING CODE:
VEP03M-3-B15-GD-24L-B

EXCLUSIVE 3 YEAR WARRANTY

Continental Hydraulics Division warrants all hydraulic directional valves supplied by Continental Hydraulics against defects in materials and workmanship under normal use and service for 3 years from the date code on the valve.

Complete terms and conditions available upon request.

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Because Continental Hydraulics is continually improving its products, specifications and appearance are subject to change without notice.

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