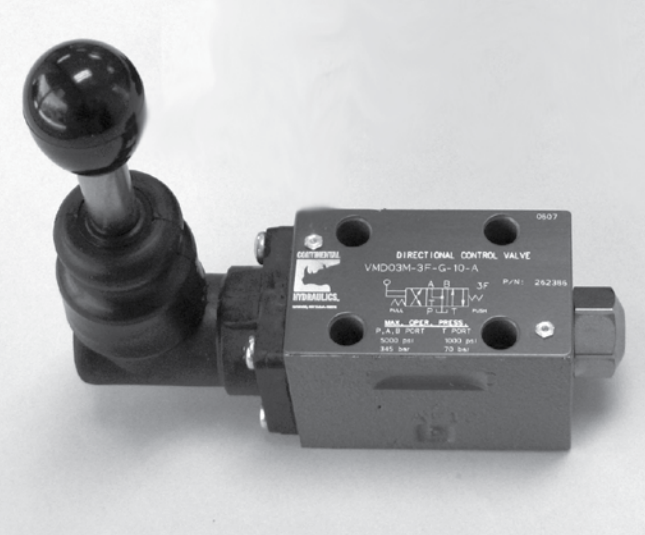
VMD03M

LEVER ACTUATED, MANUALLY OPERATED



TYPICAL PERFORMANCE SPECIFICATIONS

Performance is measured on a four-way circuit (full circuit. Performance may be reduced from that shown if a three-way circuit (half circuit) is used, i.e. A or B port plugged.

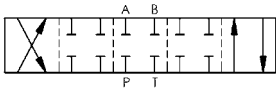
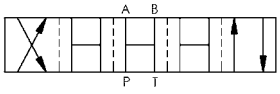
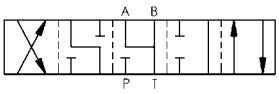
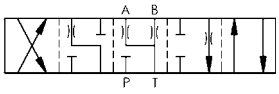
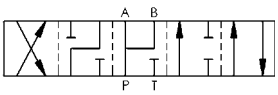
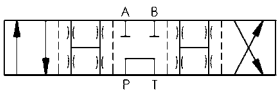
FLOW CAPACITY - (up to)		18 gpm	68 lpm
MAXIMUM OPERATING PRESSURE	P, A, B Ports	5000 psi	345 bar
	T Port	1000 psi	70 bar
LEVER FORCE AT MAXIMUM PRESSURE		10.0 lbs.	4.5 kg
MOUNTING SURFACE		ANSI/B93.7M - 1986 D03 ISO 4401 Size 03	
WEIGHT		3.4 lbs.	1.5 kg
SPOOL CODES AVAILABLE		SEE CHART	

MAXIMUM RECOMMENDED FLOW

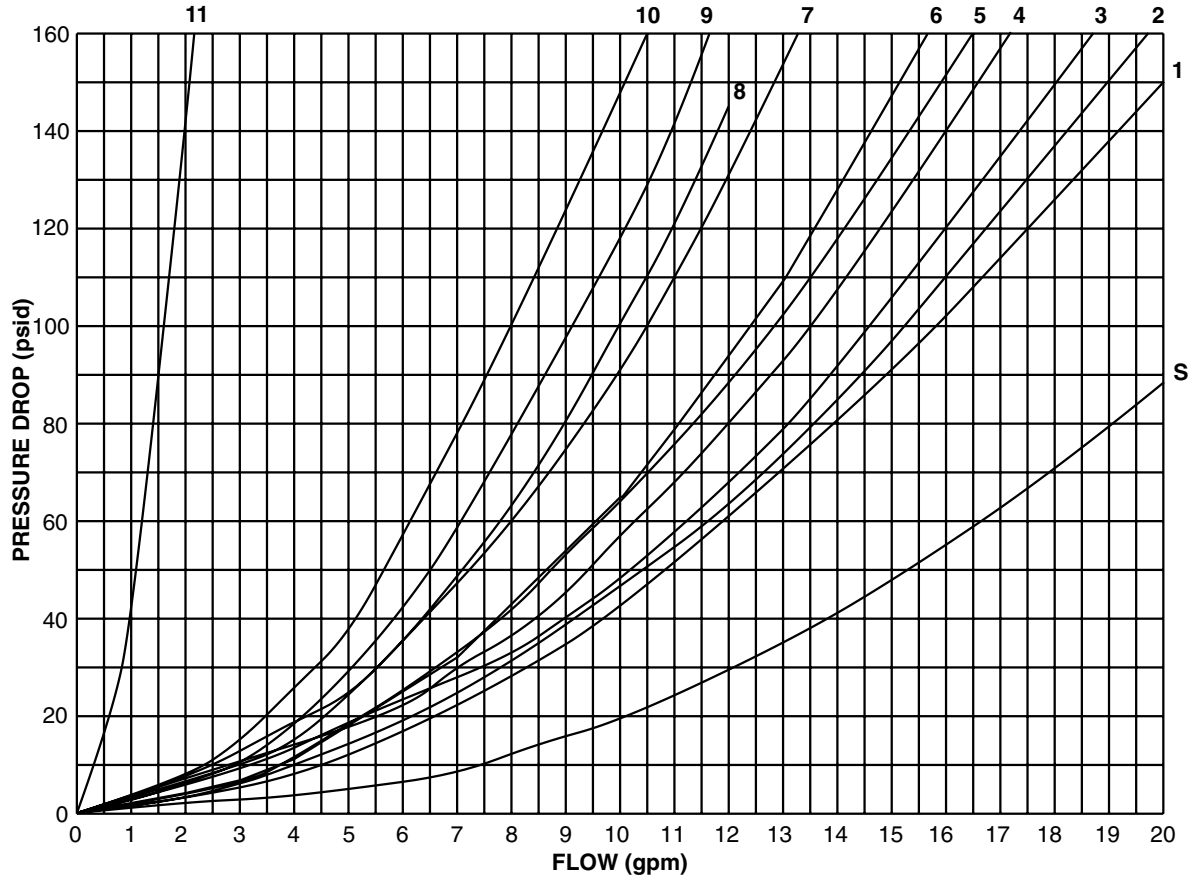
		SPOOL CODE				
	FUNCTION CODE	A	B	F	G*	L**
(lpm) (70 bar) @ gpm 1000 psi		(68) 18	(42) 11	N/A	N/A	N/A
	2	(68) 18	(61) 16	(61) 16	N/A	(38) 10
	3, 5	(68) 18	(61) 16	(61) 16	(68) 18	(38) 10
(lpm) (140 bar) @ gpm 2000 psi	1	(68) 18	(38) 10	N/A	N/A	N/A
	2	(68) 18	(61) 16	(61) 16	N/A	(38) 10
	3, 5	(68) 18	(61) 16†	(61) 16	(68) 18	(38) 10
(lpm) (210 bar) @ gpm 3000 psi	1	(68) 18	(34) 9	N/A	N/A	N/A
	2	(68) 18	(61) 16	(61) 16	N/A	(38) 10
	3, 5	(68) 18	(61) 16†	(53) 14†	(61) 16	(34) 9
(lpm) (276 bar) @ gpm 4000 psi	1	(68) 18	(26) 7	N/A	N/A	N/A
	2	(68) 18	(61) 16	(61) 16	N/A	(34) 9
	3, 5	(68) 18	(61) 16†	(45) 12†	(53) 14†	(26) 7
(lpm) (345 bar) @ gpm 5000 psi	1	(68) 18	(26) 7	N/A	N/A	N/A
	2	(68) 18	(61) 16	(61) 16	N/A	(15) 4
	3, 5	(68) 18	(53) 14†	(45) 12†	(45) 12†	(34) 9

N/A Not Available.
* "G" spool available on code 3 valves only.
** "L" spool available on codes 3 and 4 valves only.
† 11 gpm with 1000 psi tank pressure.

SPOOL DESCRIPTION

SPOOL TYPE	SPOOL SYMBOL
A	PULL  PUSH
B	PULL  PUSH
F	PULL  PUSH
F1	PULL  PUSH
G	PULL  PUSH
L	PULL  PUSH

TYPICAL PRESSURE DROP CURVES



PRESSURE DROP CURVE CHART

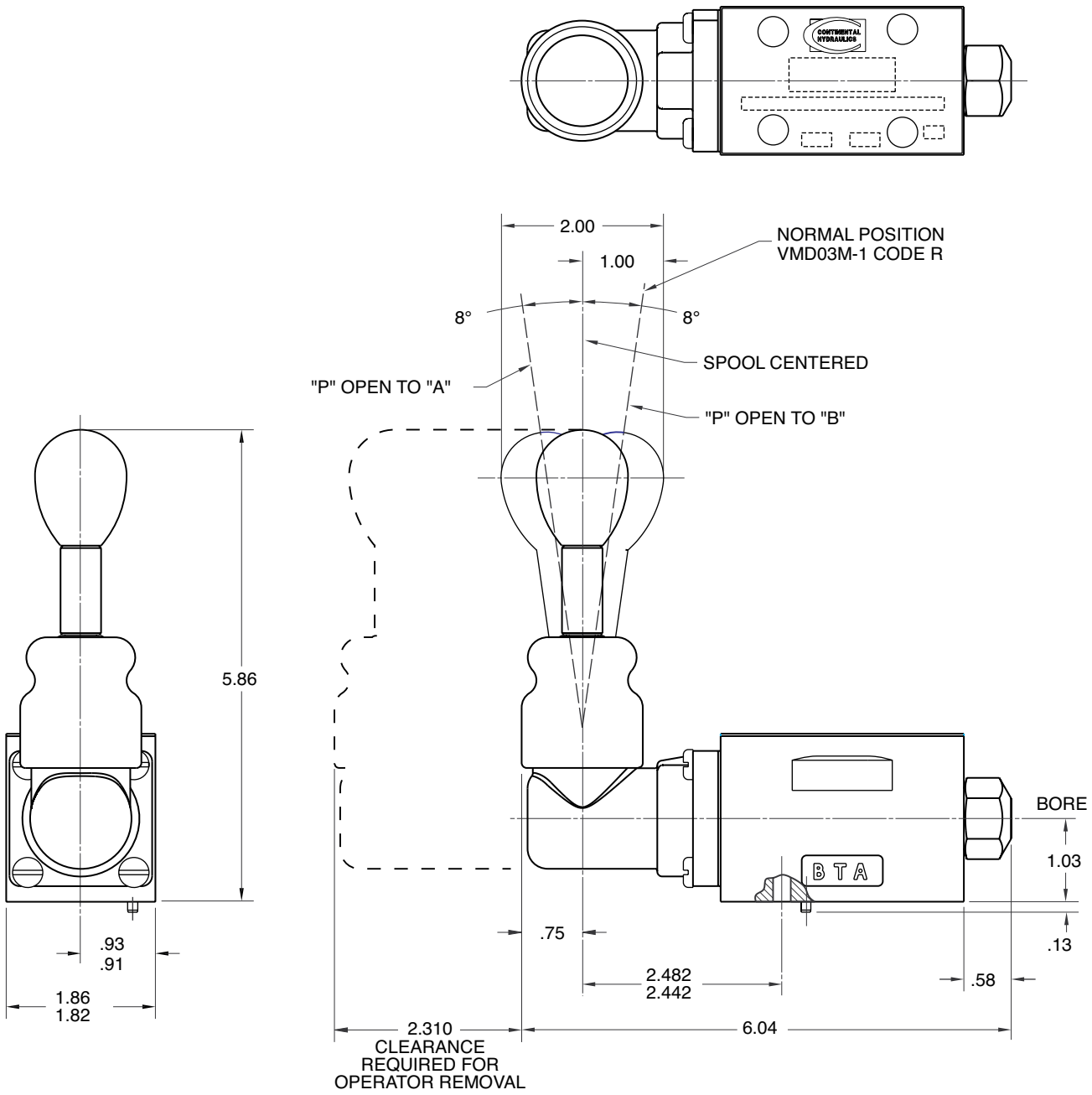
SPOOL TYPE	FLOW CURVE NUMBER						
	SPOOL SHIFTED				SPOOL CENTERED		
	P to A	B to T	P to B	A to T	P to A or B	A or B to T	P to T
A	4	4	4	4	N/A	N/A	N/A
B	2	4	2	4	5	6	5
F	5	1	5	1	N/A	10	N/A
F1	5	4	5	4	N/A	11	N/A
G	3	6	3	6	7	N/A	N/A
L	8	8	8	8	N/A	N/A	9
Subplate	S (Full Circuit)						

All pressure drops shown on this page are based on 100 SUS fluid viscosity, and 0.87 specific gravity. See the chart below for other viscosities.

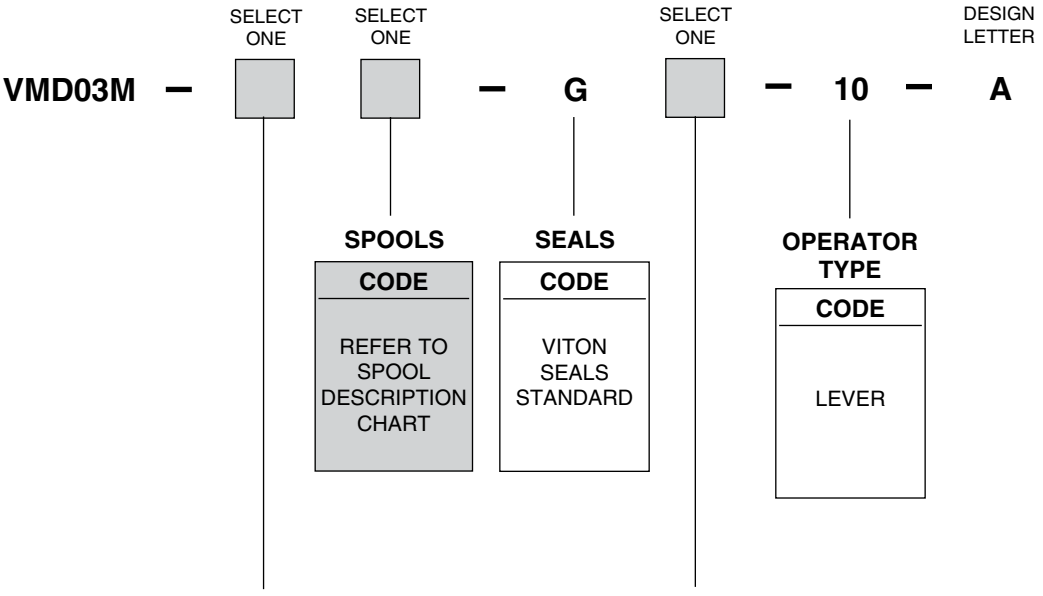
Fluid	CS	14.5	20.5	32	43	54	65	76	86
Viscosities	SUS	75	100	150	200	250	300	350	400
Multiplier		0.93	1.00	1.11	1.19	1.26	1.32	1.37	1.41

For any other specific gravity (G_1) the pressure drop (ΔP) will be approximately $\Delta P_1 = \Delta P\ (G_1/G)$.

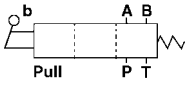
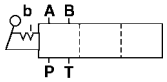
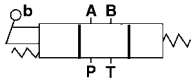
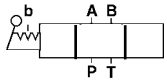
DIMENSIONS


2.00
1.00
NORMAL POSITION
VMD03M-1 CODE R
8°
8°
SPOOL CENTERED
"P" OPEN TO "A"
"P" OPEN TO "B"
5.86
BORE
1.03
.13
B T A
.75
.93
.91
1.86
1.82
2.482
2.442
.58
2.310
CLEARANCE
REQUIRED FOR
OPERATOR REMOVAL
6.04

ORDERING INFORMATION



FUNCTION

CODE	OPTION
1	 2 position spring offset
2	 2 position detented, no spring
3	 3 position spring centered
4	 3 position detented, spring centered

MECHANICAL OPTIONS

CODE	DESCRIPTION
OMIT	SINGLE SOLENOID "A" PORT END
R	SINGLE SOLENOID "B" PORT END
90	LEVER OPERATOR ROTATED 90 DEG. TOWARDS "T" PORT
90CW	LEVER OPERATOR ROTATED 90 DEG. TOWARDS "P" PORT

TYPICAL ORDERING CODE: **VMD03M-3A-G-10-A**