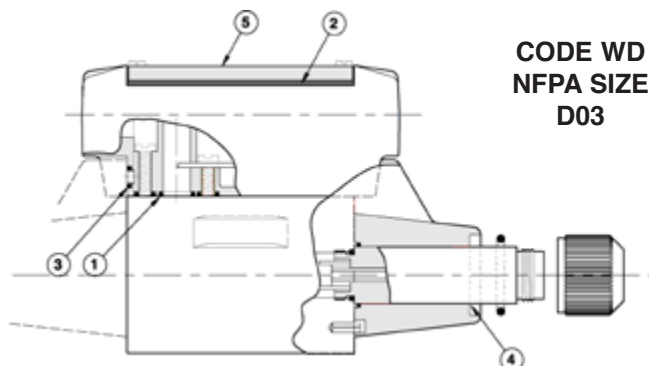




NEW VSD03M WASH DOWN OPTION VALVES

SOLENOID ACTUATED, DIRECT OPERATING



CODE WD
NFPA SIZE
D03

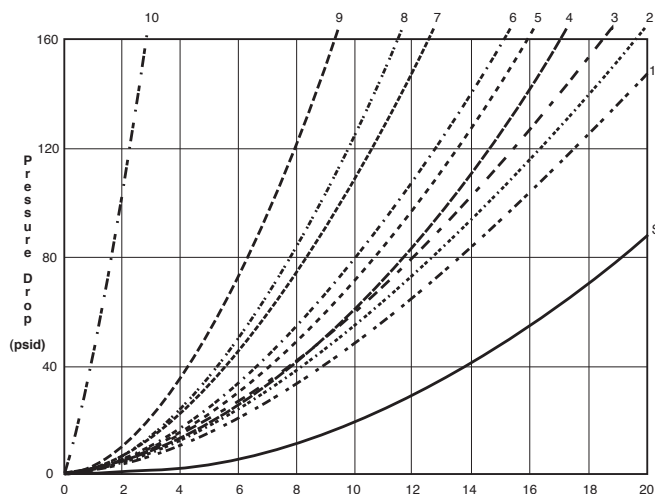
DESCRIPTION

Wash down option with electrical box, rated for IP65. Tested by CSA. The hose down test consisted spraying the valve and enclosure with 45 to 65 GPM of water from a 25mm nozzle for 5 minutes. The water

stream was directed at the enclosure seams from a distance of 3 meters and moved along the joints or surface at a minimum rate of 6mm/s or 1.65in/s. The main changes to the standard D03 valve include:

1. Addition of o-rings to seal the mounting bolt access holes between the electrical box and valve body.
2. Thicker cover gasket made of 40D nitrile to protect against direct spray. The softer material compresses more to provide a tighter seal.
3. .093" Thick gaskets made of 50D nitrile to seal the solenoid pins where they pass through the electrical box. Added compression provides better protection from direct spray. These replace the standard o-rings.
4. RTV sealant added around core tube area.
5. Solid Anodized Aluminum Cover (no bolt access holes) replaces the standard plastic cover for better sealing and chemical resistance.

TYPICAL PRESSURE DROP



FLOW PATH ΔP CURVES

Spool Code	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	5	4	5	4	--	--	--	
A Code 1 & 2	2	2	2	2	--	--	--	
B	2	1	2	1	3	3	4	
B Code 1 & 2	2	1	2	1	3	3	4	
E	5	2	5	4	--	8	--	
F	5	1	5	1	--	7	--	
F Code 68	8	1	8	1	--	7	--	
F1	5	4	5	4	--	10	--	
G	2	5	2	5	5	--	--	
H	2	6	5	2	--	--	5	
J	5	5	3	5	9	--	--	
K	5	4	5	2	--	8	--	
L	3	5	3	5	--	--	8	
N	3	5	5	5	9	--	--	
Q	5	2	2	6	--	--	5	
Subplate					S (Full Circuit)			

TYPICAL PERFORMANCE SPECIFICATION

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.

Maximum Flow Rate		See Chart	
Maximum Operating Pressure	P, A, B Ports	5000 psi	345 bar
	T (Standard)	3000 psi	207 bar
Maximum Cycle Rate	AC Solenoids	400 cpm	
	DC Solenoids	300 cpm	
Mounting Surface		ANSI/B93.7M-1986 D03 ISO 4401 Size 03	
Weight	Single Actuator	3.2 lbs.	1.45 kg
	Double Actuator	3.9 lbs	1.77 kg
Spool Codes Available		A,B,E,F,F1,G,H,J,K,L,N,Q	

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 $\Delta P_1 = \Delta P (G_1/G)$.

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SPOOL DESCRIPTION

CODE	SYMBOL	SPOOL FUNCTION	CENTER POSITION	CROSSOVER
A			All ports blocked	All ports blocked
B			All ports open	All ports open
E			P & A blocked B to T	All ports blocked, or P & A blocked B to T
F			P blocked A & B to T	P blocked A or B to T
F1			P blocked A & B restricted to T	P blocked A or B restricted to T
G			P to A & B T blocked	P to A or B T & A or B blocked
H			P to A & T B blocked	All ports open
J			P to B A & T blocked	All ports blocked, or P to B, A & T blocked
K			P & B blocked A to T	All ports blocked, or P & B blocked, A to T
L			P to T A & B blocked	All ports open, restricted
N			P to A B & T blocked	All ports blocked, or P to A, B & T blocked
Q			P to B & T A blocked	All ports open

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.



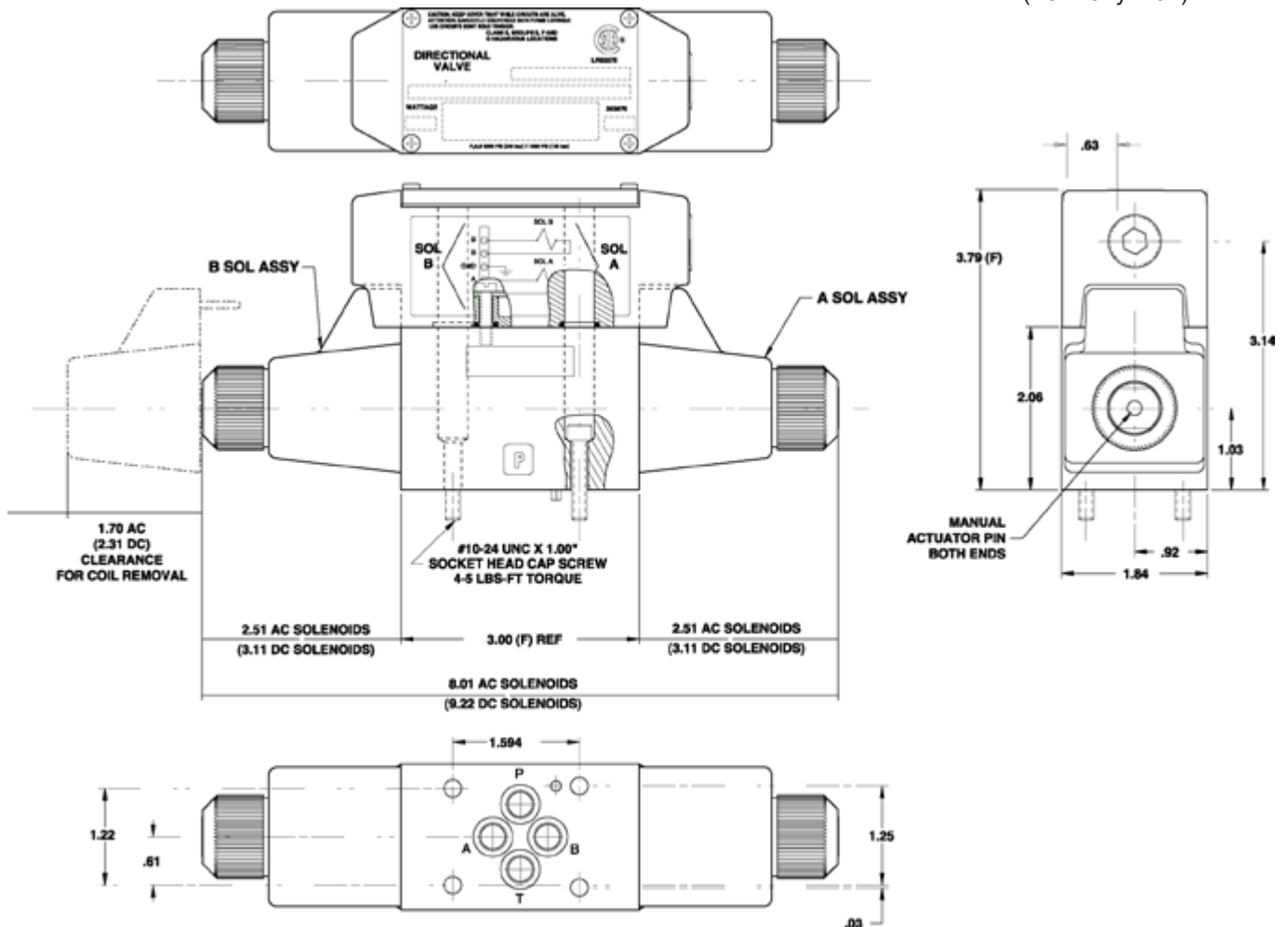
NEW VSD03M WASH DOWN OPTION VALVES

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TYPICAL ELECTRICAL INFORMATION

SOLENOID CODE		VOLTAGE & FREQUENCY	VOLTAGE LIMITS	RESISTANCE ±10%	INRUSH CURRENT	HOLDING CURRENT	HOLDING POWER
LEAD WIRE	DIN CONN.	VOLTS - Hz.	MIN - MAX	OHMS	(AMPS)	(AMPS)	(WATTS)
60L	33L	120 - 60	108 - 126	36.5	2.10	.40	21
		110 - 50	99 - 116			.43	21
68L		120 - 60	108 - 132	75.0	1.10	.18	10
		110 - 50	99 - 121			.20	9.5
61L	34L	240 - 60	216 - 252	145.0	1.10	.21	22
		220 - 50	198 - 231			.25	22
70L	42L	24 DC	21 - 26	24.0	1.00	1.00	24
75L	44L	12 DC	10 - 13	6.3	2.00	2.00	24

NFPA D03 Size
(Formerly D01)



VSD03M DOUBLE SOLENOID

NEW VSD03M

WASH DOWN OPTION VALVES

SOLENOID ACTUATED, DIRECT OPERATING



ORDERING INFORMATION

VSD03M — ☐ — ☐ — G ☐ ☐ — ☐ ☐ — A

SELECT ONE SELECT ONE SELECT IF REQ'D SELECT IF REQ'D SELECT ONE SELECT ONE DESIGN LETTER

FUNCTION

CODE	OPTION
1	Single operator • 2 position Spring offset
2	Double operator • 2 position Detented (No spring)
3*	Double operator • 3 position Spring centered
5*	Single operator • 2 position Spring centered
6	Single operator • 2 position Spring offset

* Operator identification reversed on "L" spool:

- VSD03M-3L: "A" solenoid on "A" port end, "B" solenoid on "B" port end.
- VSD03M-5L: "A" solenoid on "A" port end.
- VSD03M-5L-R: "B" solenoid on "B" port end.

SPOOLS

CODE REFER TO PAGE 2 FOR SPOOL AVAILABILITY

SEALS

CODE VITON SEALS STANDARD

MECHANICAL OPTIONS

CODE	DESCRIPTION
OMIT	SINGLE SOLENOID
R	"A" PORT END SINGLE SOLENOID
M	"B" PORT END RIVET MOUNTING
V	STEEL OVERRIDE PIN
Z*	MANUAL OVERRIDE FOR SINGLE SOLENOID VALVE
WD	WASHDOWN

* Available with single solenoid valves only.

ELECTRICAL OPTIONS

CODE	DESCRIPTION
OMIT	DIN STYLE SOLENOIDS
B	TOP ELECT. CONN. BOX W/TERMINAL POSTS, LIGHTS AND SURGE SUPPRESSOR
B3A*†	TOP ELECT. CONN. BOX W/3 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "A" PORT END
B3H*†	TOP ELECT. CONN. BOX W/3 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "B" PORT END
B4A**	TOP ELECT. CONN. BOX W/4 PIN MALE MICRO RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "A" PORT END
B4**	TOP ELECT. CONN. BOX W/4 PIN MALE MICRO RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "B" PORT END
B5A*	TOP ELECT. CONN. BOX W/5 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "A" PORT END
B5H*	TOP ELECT. CONN. BOX W/5 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "B" PORT END

* Connector conforms to ANSI/B93.55M - 1981.
** Available with DC solenoid valves only.
† Available with single solenoid valves only.

SOLENOID MFG.

CODE	DESCRIPTION
L	LISK

SOLENOID

CODE	VOLTAGE
WITH DIN 43650 ELECTRICAL CONNECTIONS	
33	120/110V 60/50 Hz
34	240/220 V 60/50 Hz
35	280/240 V 60/50 Hz
39	120/110V 60/50 Hz (LOW FORCE)
42	24 VDC
44	12 VDC
WITH 2 PIN CONNECTIONS	
60	120/110 V 60/50 Hz
61	240/220 V 60/50 Hz
68	120/110 V 60/50 Hz (LOW AMP, LOW FORCE)
70	24 VDC
75	12 VDC

NOTE: Solenoids not CSA approved.

TYPICAL ORDERING CODE:

VSD03M-3A-G-33L

FULL YEAR(INTERNATIONAL)TRADING CO.

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