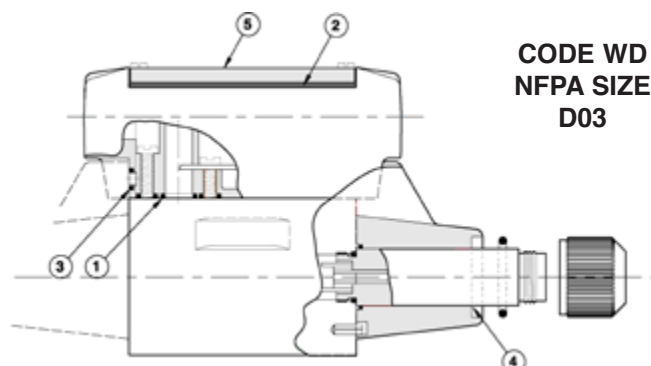




# NEW VSD03M WASH DOWN OPTION VALVES

SOLENOID ACTUATED, DIRECT OPERATING



**CODE WD**  
**NFPA SIZE**  
**D03**

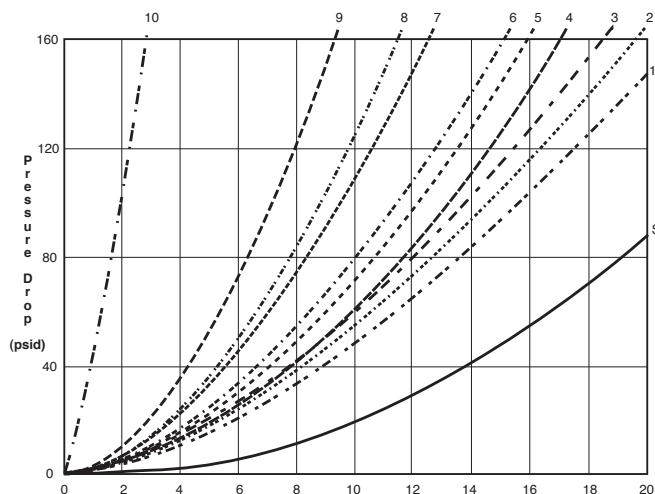
## DESCRIPTION

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

**NEW VSD03M**

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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

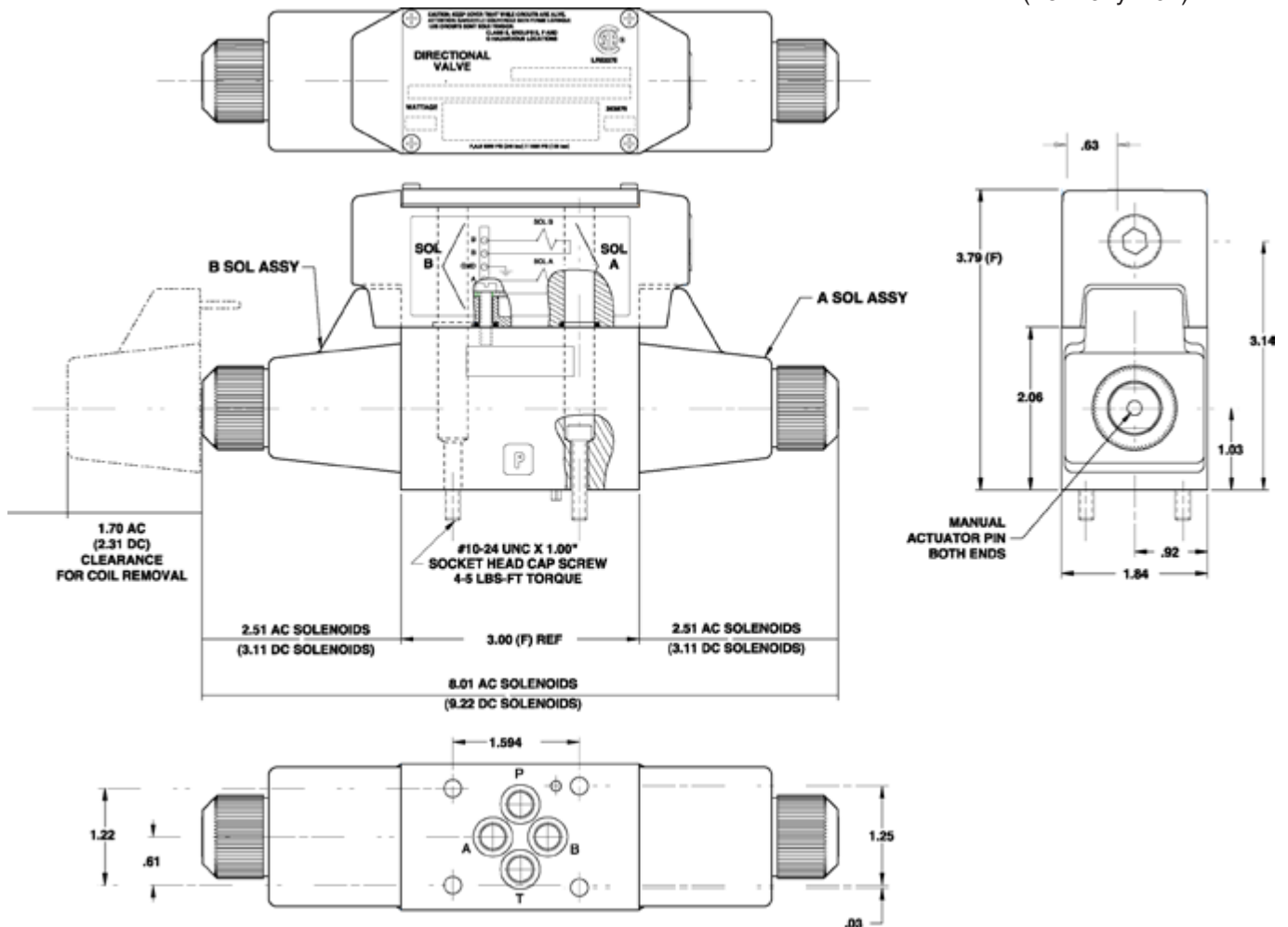
## WASH DOWN OPTION VALVES

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### TYPICAL ELECTRICAL INFORMATION

SOLENOID CODE		VOLTAGE & FREQUENCY	VOLTAGE LIMITS	RESISTANCE $\pm 10\%$	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		SPOOLS		ELECTRICAL OPTIONS		SOLENOID MFG.	
CODE	OPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
1	<p>Single operator • 2 position Spring offset</p>	<p>REFER TO PAGE 2 FOR SPOOL AVAILABILITY</p>	OMIT	DIN STYLE SOLENOIDS	<p>L</p> <p>LISK</p>	<p>SOLENOID</p>	
2	<p>Double operator • 2 position Detented (No spring)</p>		B	TOP ELECT. CONN. BOX W/TERMINAL POSTS, LIGHTS AND SURGE SUPPRESSOR			
3*	<p>Double operator • 3 position Spring centered</p>		B3A*†	TOP ELECT. CONN. BOX W/3 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "A" PORT END			
5*	<p>Single operator • 2 position Spring centered</p>		B3H*†	TOP ELECT. CONN. BOX W/3 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "B" PORT END			
6	<p>Single operator • 2 position Spring offset</p>		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			
		<p>SEALS</p> <p>VITON SEALS STANDARD</p>	B5A*	TOP ELECT. CONN. BOX W/5 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "A" PORT END	<p>WITH 2 PIN CONNECTIONS</p>	<p>NOTE: Solenoids not CSA approved.</p>	
			B5H*	TOP ELECT. CONN. BOX W/5 PIN MALE MINI RECEPTACLE, LIGHTS & SURGE SUPPRESSOR CONNECTOR ON "B" PORT END			

\* 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.

\* Available with single solenoid valves only.

† Available with single solenoid valves only.

\*\* Available with DC solenoid valves only.

‡ Available with single solenoid valves only.

TYPICAL ORDERING CODE:

**VSD03M-3A-G-33L**

Continental Hydraulics  
 5505 West 123rd Street, Savage, MN 55378 U.S.A.  
 Phone: (952) 895-6400 Fax: (952) 895-6444  
 www.continentalhydraulics.com

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