

Models CADM-2501-B and CADM-3801-B Adjustable Snap Acting Pressure Switches

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The **INVALCO Model CADM** is a diaphragm-operated pilot valve for pneumatic or hydraulic control. The unit may be equipped with one, two, or three snap-acting three-way Micro Valves to provide on/off output to one or more controlled circuits. Two Micro Valve sizes and four spring ranges provide extreme flexibility in application to simple or complex control systems. Since the Micro Valves are completely isolated from the diaphragm, and also isolated from each other, various control output pressures and media may be used in the same CADM pilot.

Operation

Process pressure is applied to the lower diaphragm chamber, causing the stem to rise against the adjustable upper spring. When the lower drive collar has been raised sufficiently, the Micro Valve® will snap, thereby reversing the control circuit. As process pressure decreases, the upper drive collar will lower, contacting the toggle arm which causes the Micro Valve to snap to its “opposite” position.

Adjustment

Operating adjustments are very simple on the CADM Pilot. The range spring is available in four standard ranges: 5-12 psi, 10-27 psi, 25-45 psi, 40-60 psi. The adjustable drive collars provide a convenient means of adjusting the span of output valve action within the operating range. CADM pressure switches are factory preset to the midpoint of the specified range.

Special Adjustments

Where manual reset is required, simply remove one of the adjustable drive collars. The CADM pilot lends itself to lock up or alarm service since either application, or loss of process pressure, can cause the Micro Valve to trip with manual reset required by removing either the lower or upper drive collar. The clear plastic cover permits visual indication of the Micro Valve position as well as the approximate process pressure.



CADM-3801-B Pressure Switch

Micro Valve® Flow Characteristics

- Type 316F1, 1/16" Orifice: 6.5 cfm @ 100 psi.
- Type 38F1, 1/8" Orifice: 26 cfm @ 100 psi.

Materials of Construction

Diaphragm Case

Aluminum

Micro Valve® Case

Aluminum

Micro Valve®

- Aluminum body, stainless trim, Buna-N inserts and seals
- Other materials available on special order

Maximum Working Pressure

- Micro Valve: 100 psig
- Actuator: See table on page 2

Stem and Bushing

Stainless and brass

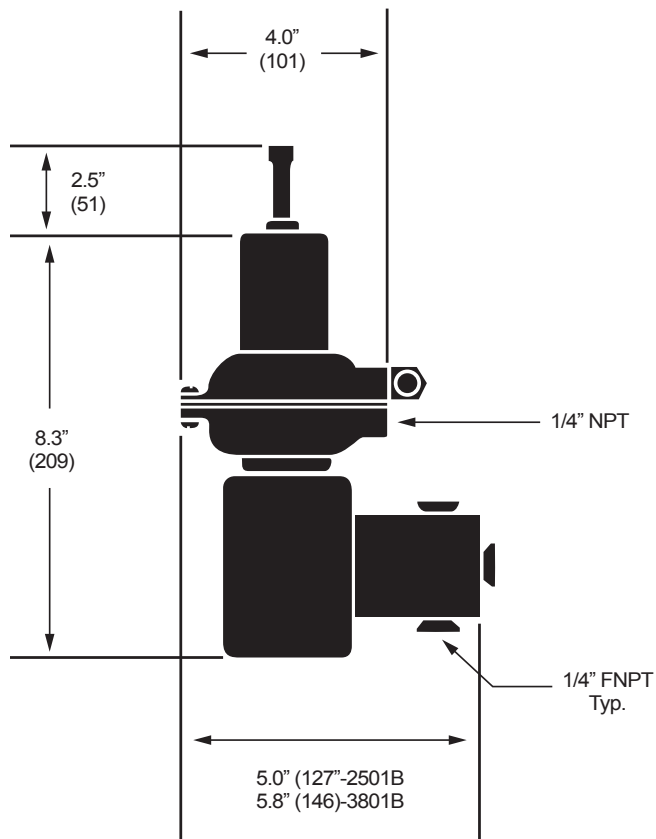
Ordering Information

Note: To Order, specify part number and catalog model number. Micro Valve® is a registered trademark of Barworth Corporation.

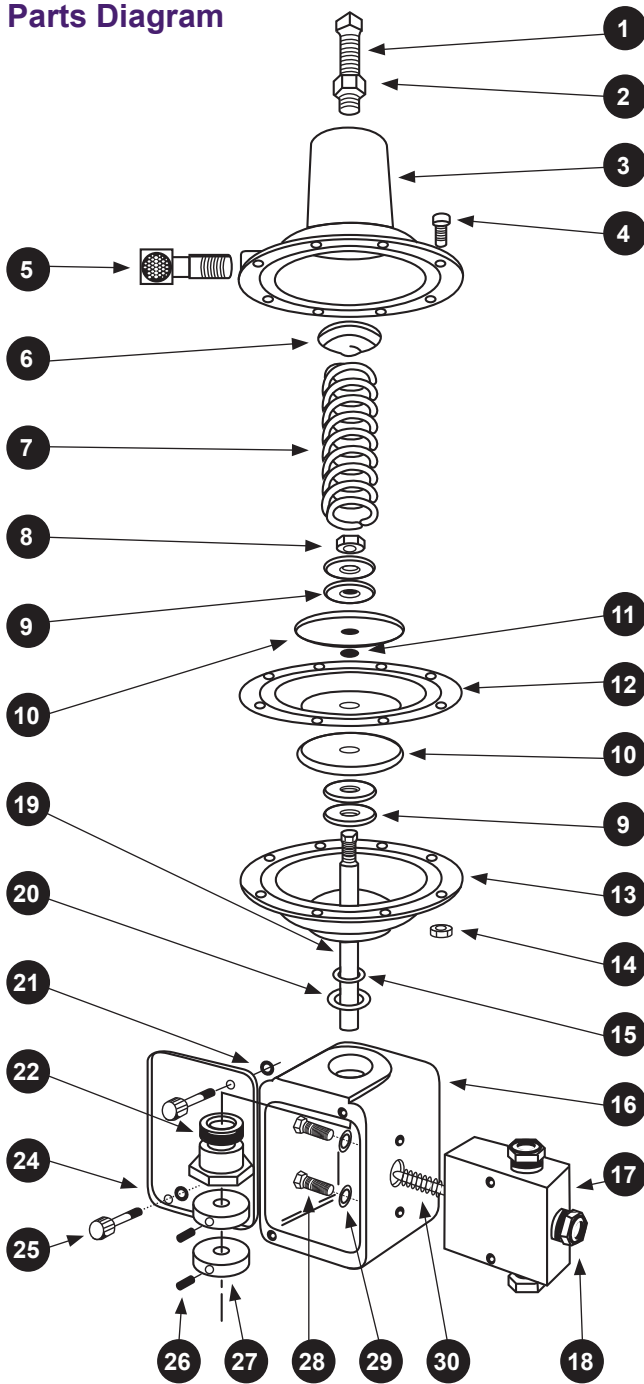
Float Rod Chart							
Catalog Model Number	Type Micro Valve	Nominal Spring Range	Actuating Pressure (PSI)*		Span (PSI)*		Part Number
			Minimum	Maximum	Minimum	Maximum	
CADM-2501-B1	Type 316 F1 3-Way, 1/4" FPT 1/16" orifice 100 psi W.P.	5-12 psi 10-27 psi 25-45 psi 40-60 psi	2.5	14.5	1.5	3.0	80000904
			5.0	32.5	4.5	9.0	80000905
			15.0	55.0	12.0	23.5	80000906
			19.0	73.5	19.0	38.0	80000911
CADM-2501-B1 Repair Kit							80100915
CADM-3801-B1	Type 38 F1 3-Way, 3/8" FPT** 1/8" Orifice 100 psi W.P.	5-12 psi 10-27 psi 25-45 psi 40-60 psi	4.5	14.5	3.5	5.0	80001004
			9.5	32.5	9.0	13.0	80001005
			29.5	55.0	23.5	35.0	80001006
			38.0	73.5	38.0	57.0	80001007
CADM-3801-B1 Repair Kit							80101005

Dimensions – Inches (mm)

Dimensions – Inches to the nearest tenth (millimeters to the nearest whole mm), each independently dimensioned from engineering drawings.



Parts Diagram



Parts			
Item	Description	Qty.	Part No.
1	Screw 3/8-16 x 2-1/2 SQHSS	1	65003335
2	Nut 3/8-16 Hex Jam	1	65011037
3	Upper Diaphragm Case	1	45002455
4	Screw 10-32 x 5/8 FHMS	8	65011039
5	1/4" Bleeder Filter	1	45002612
6	Spring Rest	1	45003181
7	Spring (5-12 psi)	1	45003246
	Spring (10-27 psi)	1	45004446
	Spring (25-45 psi)	1	45005435
	Spring (40-60 psi)	1	45005436
8	Nut 1/4-28 Flexloc	1	65003530
9	Washer 1/4 Flat	4	45003186
10	Diaphragm Plates	2	45003159
11	O-Ring BUN-008-90	1	67102310
12	Diaphragm	1	45003158
13	Lower Diaphragm Case	1	45002157
14	Nut 10-32 Hex	8	65011075
15	O-Ring BUN-112-90	1	67102312
16	Case (1-1/4" MicroValve)	1	45009842
	Case (2-1/4" MicroValve)	1	45009845
	Case (1-3/8" MicroValve)	1	45009843
	Case (2-3/8" MicroValve)	1	45009846
17	MicroValve 38F1	1-2-3	87000019
	MicroValve 316F1	1-2-3	87000212
18	Pipe Bushing 3/8 x 1/4 NPT (3/8" MicroValve)	3/MV	45002450
19	Stem	1	45002183
20	O-Ring BUN-113-90	1	67101636
21	O-Ring BUN-007-90	2	67102309
22	Bushing	1	45005597
24	Cover	1	45004876
25	Cover Screw	2	45002307
26	Screw 10-32 x 1/4" SHSS (Included with item 27)	2	65002147
27	Collar	2	45002191
28	Screw 1/4-20 x 1/2 HHCS (3/8" MicroValve)	2/MV	65006602
	Screw 10-32 x 1/2 HHCS (1/4" MicroValve)	2/MV	65011172
29	Washer 1/4" Lock (3/8" MicroValve)	2/MV	65006386
	Washer #10 Lock (1/4" MicroValve)	2/MV	65007700

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.
Contact information is subject to change. For the most current contact information, visit our website at www.fmctechnologies.com/measurementsolutions and click on the "Contact Us" link in the left-hand column.

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TechnipFMC
FMC Technologies
Measurement Solutions, Inc.
500 North Sam Houston Parkway West,
Suite 100
Houston, Texas 77067 USA
P:+1 281.260.2190

USA Operation
1602 Wagner Avenue
Erie, Pennsylvania 16510 USA
P:+1 814.898.5000

Germany Operation
Smith Meter GmbH
Regentstrasse 1
25474 Ellerbek, Germany
P:+49 4101.304.0