Models CADM-201 and CADMEX-201 Level Controls – Diaphragm Type

Bulletin SSIN011 Issue/Rev. 0.1 (8/17)

These **diaphragm-operated liquid level controls** are available with either a pneumatic or electrical control switch. The INVALCO Model CADMEX-201 is supplied with an explosion- proof SPDT Micro Switch. This switch is UL and CSA approved. The Model CADM-201 is supplied with the popular snap-action, three-way Micro Valve®, ideally suited for diaphragm motor valve control.

The 2" process connections are recommended where high paraffin or sediment content is present in the measured material.

The most outstanding feature of these controls is the absence of troublesome small orifice and chambers usually found in similar types of floatless level controls.

CADM-201

Standard Speci ications

Temperature
-20°F to 250°F

Maximum High Level
22 feet W.C.

Maximum Control Span
11 feet W.C.

Materials
- Body: Steel
- Diaphragm: Buna-N

Containment Pressure
100 psi

Type Control Switch
- Models CADM: Micro Valve, 3-way, 1/4” NPT Ports, 1/8” orifice, 100 psi max. W.P.
- Models CADMEX: SPDT, explosion-proof Micro Switch, 15 Amps @ 125, 250, or 480 Vac, CSA, and UL approved.

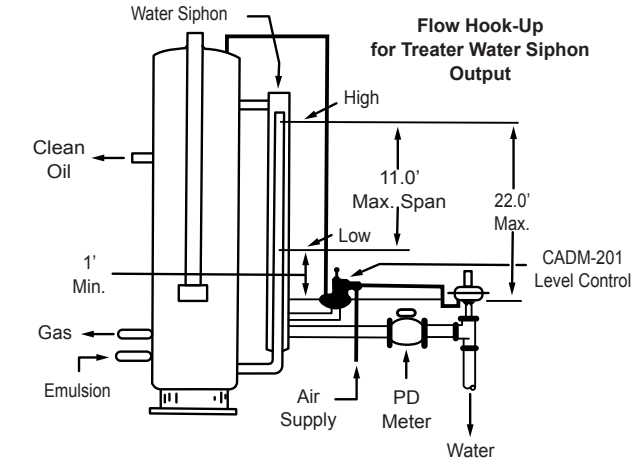
Principle of Operation

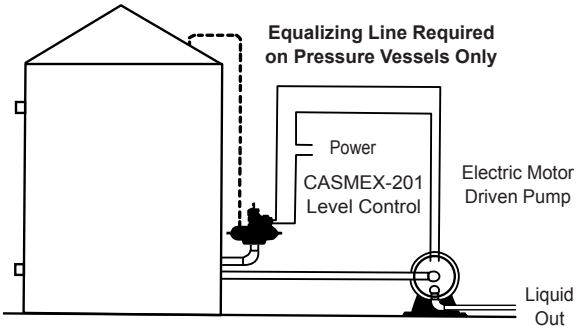
Pressure exerted by a column of liquid is applied to the lower diaphragm chamber through the process connection. When the liquid level rises to the preset high level control point, the three-way Micro Valve unit or Micro Switch (depending on which is supplied) is actuated, sending a signal to a control valve, pump, alarm, etc.

The control switch will remain actuated until the liquid level drops to a preset low level point. Both high and low level control points may be adjusted to operate at any point. The spring adjusting screw, located on top of the unit, permits the quick and easy adjustment of the high level control point. The “double collar” switch actuator may be readily adjusted to set the low level control point.

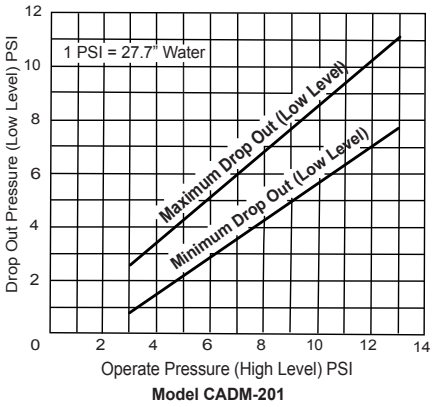
For pressurized vessels the head pressure is piped to the upper diaphragm chamber, automatically correcting for variation in head pressures.

Typical Applications

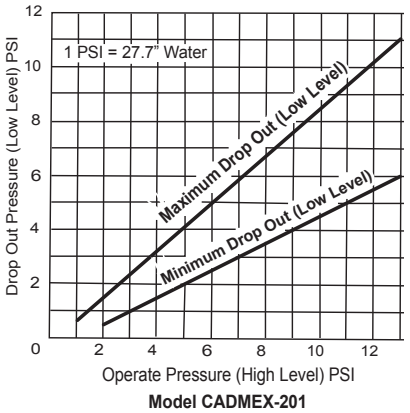




Pressure Drops



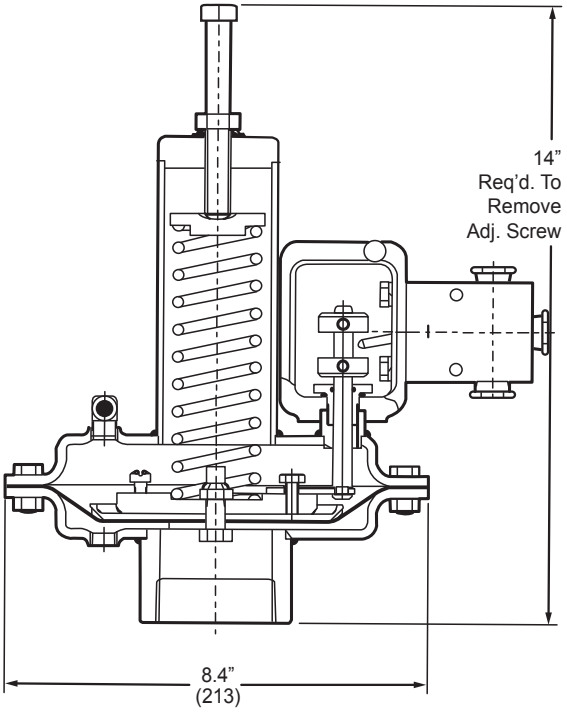
Model CADM-201



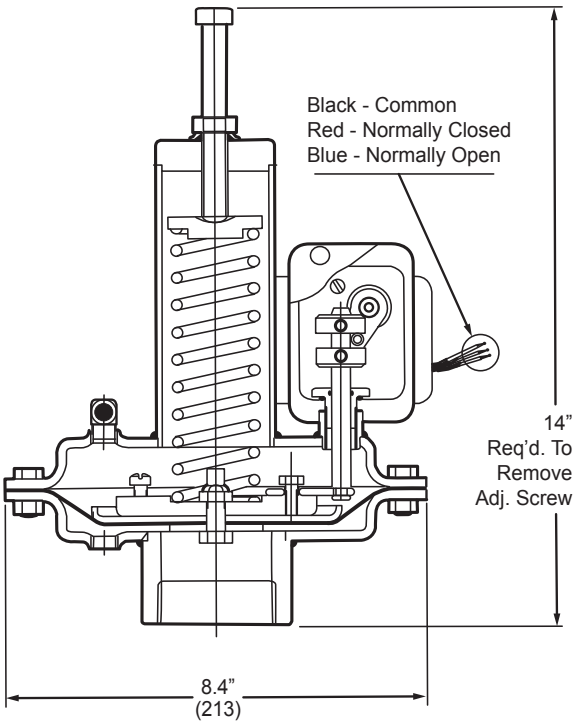
Model CADMEX-201

Dimensions

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



Model CADM-201

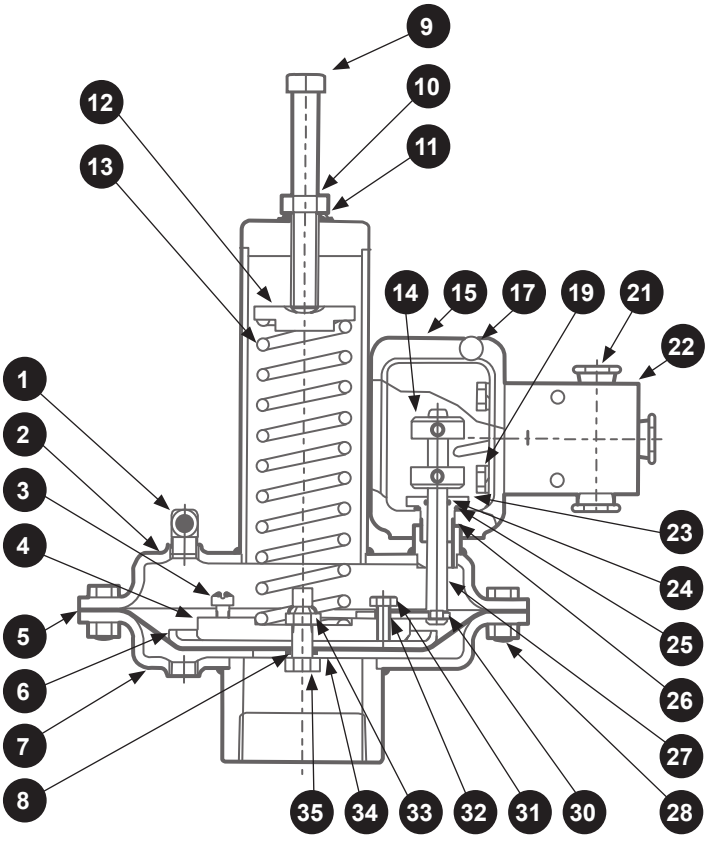


Model CADMEX-201

Parts

Parts – CADM-201				
Item	N	Description	Qty.	Part No.
1		1/4 Bleeder Filter	1	45002612
2		Upper Diaphragm Case	1	48004282
3		Screw 1/4-20x5/8 FHMS	2	65011419
4		Lower Spring Rest	1	45002620
5	*	Diaphragm	1	45003465
6		Diaphragm Plate	1	45003466
7		Lower Diaphragm Case	1	48004456
8	*	O-Ring BUN-110-90	1	67101532
9		Screw 1/2-13x4 SQHSS	1	54015571
10		Nut 1/2-13 Hex	1	65008551
11	*	Tank Seal Washer	1	45003285
12		Upper Spring Rest	1	45001858
13	*	Spring	1	45002688
14		Collar	2	45002191
15		Case	1	45002670
16		Cover	1	45004876
17		Cover Screw	2	45002307
18	*	O-Ring BUN-007-90	2	67102309
19		Screw 1/4-20x3/4 HHCS	2	65002341
20		Washer 1/4 Lock	2	65006386
21		1/4x3/8 NPT Pipe Bushing	3	45002450
22	*	Micro Valve	1	87000019
23		Connector Bushing	1	46001570
24	*	O-Ring VIT-012-75	1	67303423
25	*	Gasket	1	46001628
26	*	Gasket	1	45002618
27		Stem	1	45002619
28		Screw 5/16-18x3/4 HHCS	12	65002073
29		Nut 5/16-18 Hex	12	65002100
30		Arm	1	45002624
31		Screw 1/4-20 x 5/8 HHCS	1	65010821
32		Nut 5/16 - 18 Hex	1	45016291
33		Nut 3/8 - 24 Flexloc	1	65001401
34		Washer	1	45002433
35		Screw 3/8-24x1-1/4 HHCS	1	65005779

Parts Key: *Recommended spare parts.



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10		Nut 1/2-13 Hex	1	65008551
11	*	Tank SEal Washer	1	45003285
12		Upper Spring Rest	1	45001858
13	*	Spring	1	45002688
14		Collar	2	45002191
15		Case	1	45009844
16		Cover	1	45004876
17		Cover Screw	2	45002307
18	*	O-Ring BUN-007-90	2	67102309
19		Screw 10-32 x 1/2 BHMS	2	65005952
20		Washer 10 Lock	2	65002500
21		Switch Arm	1	49000709
22	*	Micro Switch SPDT (Used in 80001106)	1	33100542
		Micro Switch DPDT (Used in 80001108)	1	33110852
23		Connector Bushing	1	46001570
24	*	O-Ring VIT-012-75	1	67303423
25	*	Gasket	1	46001628
26	*	Gasket	1	45002618
27		Stem	1	45002619
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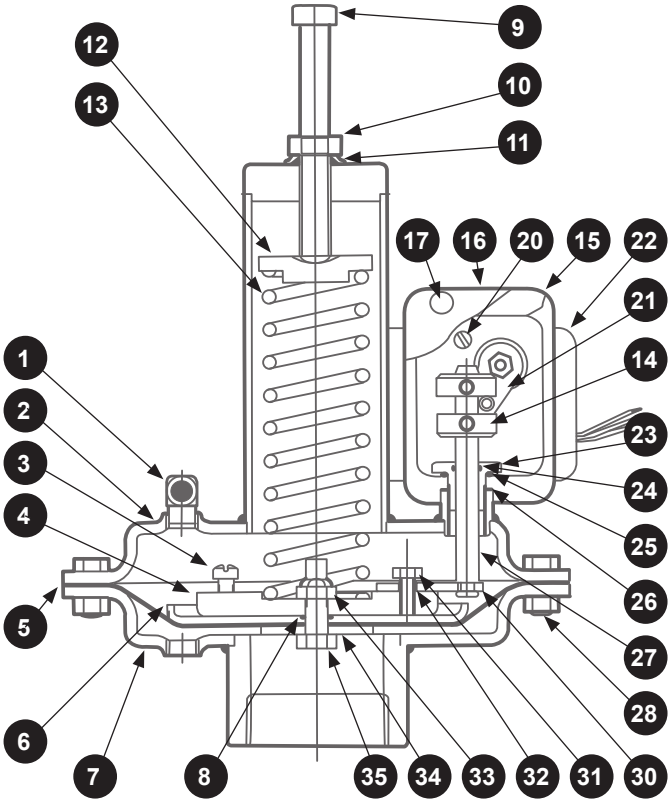

Ordering Information

Part Number	Catalog Number	Process Conn. Size	Type Control Signal
80000901	CADM-201-834	2" FNPT	Pneumatic (3-way Micro Valve)
80001106	CADMEX-201-834	2" FNPT	Electric (SPDT Micro Switch)
80001108	CADMEX-201-834	2" FNPT	Electric (DPDT Micro Switch)

Note: To Order, specify part number and catalog model number.

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.

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

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