



**DESCRIPTION** Cap-Level<sup>®</sup> IIA is designed for level monitoring and control. The 4-20mA output provides a selectable dampening function to stabilize readings where severe agitation is present. Simple zero and span adjustment make calibration easy. The relay logic circuitry offers the flexibility to control multiple pumps, conveyors, and alarms. Each relay can be set to turn your equipment on and off at any selected point on the probe, without any external latching devices. Failsafe selection gives the security of fault indication and/or conveyor stop if power is lost. The probe configurations and materials offered allow you to custom fit Cap-Level<sup>®</sup> IIA to your application. Designs such as the type "E" and "H" tie-down, allow use in tall silos and include a unique cable tightening adjustment.

## FEATURES AND BENEFITS

- Two-wire transmitter (24 VDC)
- Senses practically any liquid
- Electronic options
- Rigid or flexible probes
- FM approved for hazardous areas

### Continuous 4-20mA

- Standard Communication

### Output Dampening - Standard

- Stabilizes readings where severe agitation is present

### Teflon, PVC, and 316 SS Probes and NPT or Flange Mounting

- Options for a wide range of applications

### Continuous Process Management

- Uninterrupted level measurement

**All models intrinsically safe when used with approved barriers.**

## HOW TO ORDER

CL - 2A - - 4 - - - - - 10

### MODIFICATION (Note 1)

- A = No Lagging Extension
- B = With 10" SS Lagging Extension

### FLANGE MATERIAL

- 1 = None
- 2 = 316 SS
- 3 = Carbon Steel
- 4 = Teflon<sup>®</sup> Faced 316 SS (Note 2)
- 5 = Teflon<sup>®</sup> Faced Carbon Steel (Note 2)

### FLANGE OPTION

- A = None
- B = 1.5" 150 lb
- C = 2" 150 lb
- D = 3" 150 lb
- E = 4" 150 lb
- S = Special

### PROBE LENGTH (NOTE 3 & 4)

### PROBE TYPE

- A = 316 SS Solid Probe (Note 5)
- B = Teflon<sup>®</sup> Jacketed Solid Probe
- D = Bare SS Cable, SS Weight (Note 5)
- E = Bare SS Cable, Tie Down Assembly (Note 5)
- H = Teflon<sup>®</sup> Jacketed Cable, Tie Down Assembly
- I = Teflon<sup>®</sup> Jacketed Cable, Teflon Jacketed Weight
- M = PVC Jacketed Solid Probe
- N = Teflon<sup>®</sup> Jacketed Solid With 1" Sanitary Mount
- P = 316 SS Solid with 1" Sanitary Mount (Note 5)
- Q = Teflon<sup>®</sup> Jacketed Solid Probe With 2" Sanitary Mount

### VOLTAGE

- 4 = 24 VDC (External Loop Power Supply Required)

### ENCLOSURE

- G = General Purpose, NEMA 4X
- R = NEMA 4X, Remote Cable Required

### SERIES-IIA

- 2A = 2 Wire Analog (4-20mA)

### CAP-LEVEL<sup>®</sup> IIA

Note 1. Lagging assembly is used for high temperature applications.

Note 2. All models are intrinsically safe when used with approved barriers.

Note 3. Maximum standard length for solid probes is 14' (4.2m). For probes exceeding this length consult factory.

Note 4. Maximum standard length for cable probes is 100' (30.5m). For probes exceeding this length contact factory.

Note 5. For dry or non-conductive materials only.

## SPECIFICATIONS

### FUNCTIONAL

Power	15-32 VDC (27 VDC max. for LS operation)
Output	4-20mA
Drive Capability	450 ohms @ 24 VDC (varies with voltage)
Calibration	Zero and span with frequency selection
Capacitance Range	0 pF to 4000 pF nominal
Repeatability	±1% of span (constant dielectric)
Sensing System	High frequency capacitance with digital comparator

### PHYSICAL

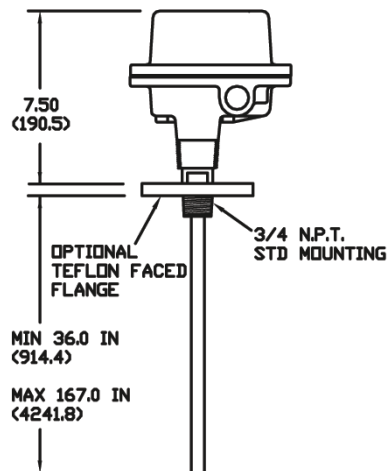
Enclosure	NEMA 4X, aluminum with corrosion resistant polyester coating
Enclosure Temperature	-40° F to 120° F (-40° C to 49° C) (lagging assembly for higher temperature)
Length	As specified - Types A, B, M, N, P, Q: 167" (4175mm) maximum; Types D, E, H, I: 1200" (36000mm) maximum
APPROVALS	Hazardous Location: FM, Intrinsically safe, Class I, II, III, Div I, Groups C, D, E, F & G Type 4, T4A

## PROBE APPLICATION

Probe Type	Mount Standard	Material	Pressure (Max)	Temp. (Max)
A	3/4" NPT	316 SS**	50 PSI (3.51 kg/cm <sup>2</sup> )	250° F (121° C)
B	3/4" NPT	Teflon®/SS	50 PSI (3.51 kg/cm <sup>2</sup> )	250° F (121° C)
D	1 1/4" NPT	316 SS**	Atmospheric	250° F (121° C)
E	1 1/4" NPT	316 SS**	Atmospheric	250° F (121° C)
H	1 1/4" NPT	Teflon®/SS	Atmospheric	250° F (121° C)
I	1 1/4" NPT	Teflon®/SS	50 PSI (3.51 kg/cm <sup>2</sup> )	250° F (121° C)
M	3/4" NPT	PVC/SS	50 PSI (3.51 kg/cm <sup>2</sup> )	140° F (60° C)
N	1" Sanitary	Teflon®/SS	50 PSI (3.51 kg/cm <sup>2</sup> )	250° F (121° C)
P	1" Sanitary	316 SS	50 PSI (3.51 kg/cm <sup>2</sup> )	250° F (121° C)
Q	2" Sanitary	Teflon®/SS	50 PSI (3.51 kg/cm <sup>2</sup> )	250° F (121° C)

\*\* Probe types A, D, E non-conductive media only. Use auxiliary ground rod or stilling well (reference ground) in fiberglass or lined vessels. Teflon® is a registered trademark of E.I. Du Pont, 2006. All rights reserved.

### TYPE "B" PROBE



Order from: **C A Briggs Company**  
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MEASUREMENT

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