

Z-tron™ IV



Z4-Series

Economical

Effective, low-cost material level detection in a wide variety of applications, and a desirable alternative to electromechanical level switches. No expendable parts to buy and stock. No expensive, extra-cost options.

Maintenance-Free

Unlike paddle wheels, vibrating tines or other mechanical instruments, there are no components to jam, break or wear out. No need for routine maintenance, cleaning or replacing of worn parts.

Reliable Operation

Cote-Shield™ circuitry allows the Z-tron IV to ignore coatings or build up on the sensing element. There are no false signals from dust or tunneling.

Easy-Installation

One-piece unit is easily installed through a single 3/4-inch, probe dependent vessel opening. Calibration is quick and simple.

Z-tron IV™ Point Level Switch, a reliable low-cost, on/off level switch

The low-cost, Drexelbrook Z-tron IV level switch is unaffected by sticky coatings and impervious to corrosive liquids. The all-electronic design means no moving parts to wear, break or fail. Based on field-proven RF technology, the Z-tron IV is a simple and reliable on/off level switch.

The compact one-piece unit is inserted through a standard 3/4-inch, probe dependent, NPT opening into the vessel so that the sensing element is positioned at the desired high or low level. (Other connection types and sizes are also available.) When the material level reaches a predetermined point on the sensing element, it causes a change in status at the electronic unit, resulting in actuation of the DPDT relay. The relay can be used to operate alarms, annunciators, valves, or other control or indication devices.

Drexelbrook's Exclusive Cote-Shield™

Cote-Shield enables the Z-tron IV to ignore dust pileups, coatings, and sticky buildups on the sensing element.

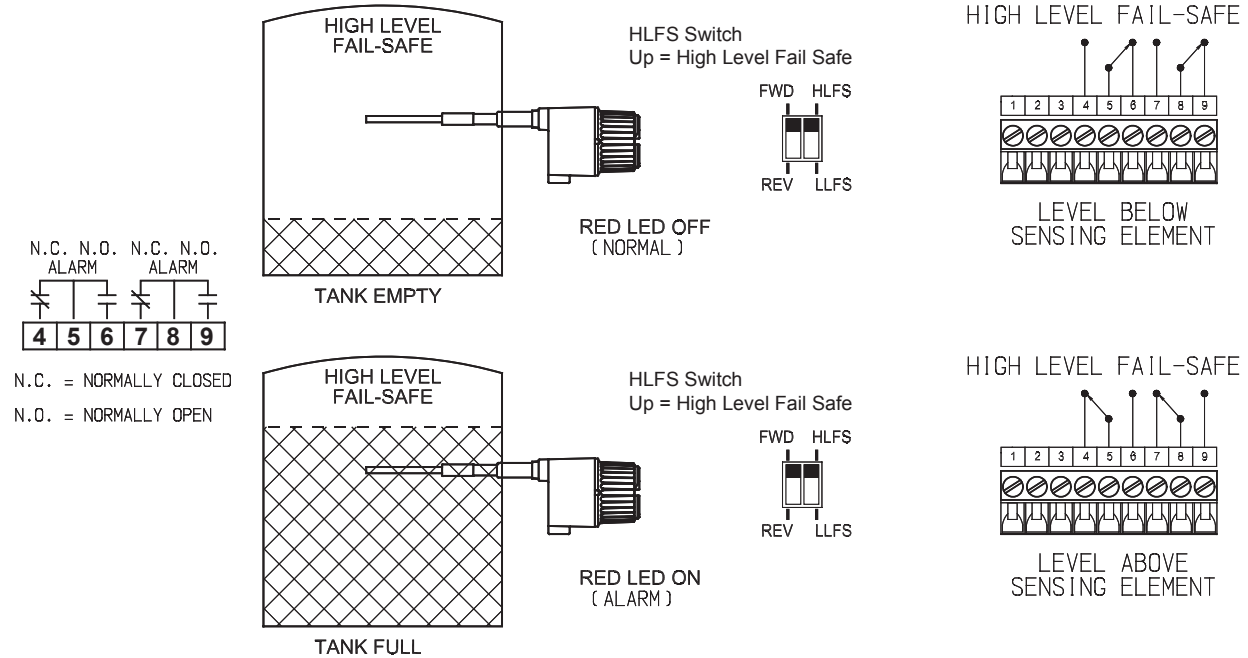


Point Level Measurement

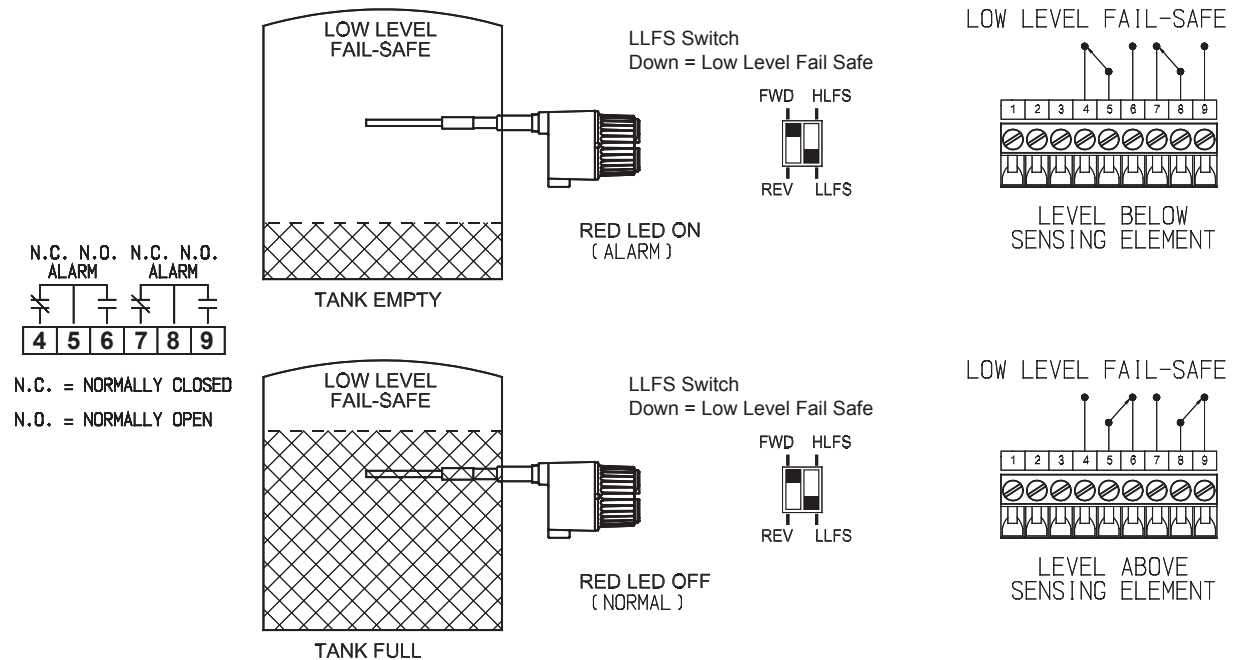
Z-tron IV™ Z02X-Series

Relay Wiring

High Level Fail Safe



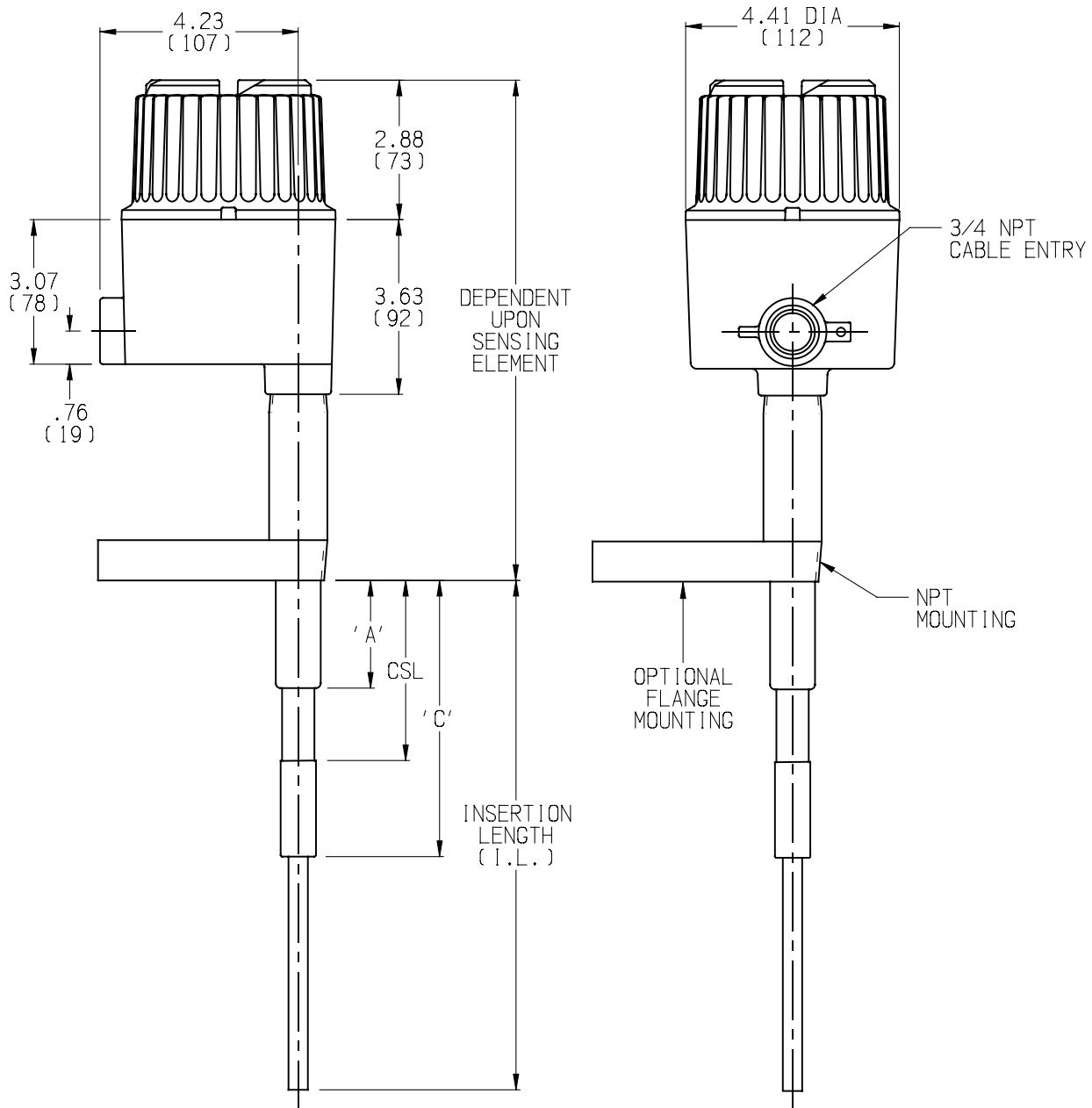
Low Level Fail Safe



Point Level Measurement

Z-tron IV™ Z02X-Series

Integral Mounting Dimensions

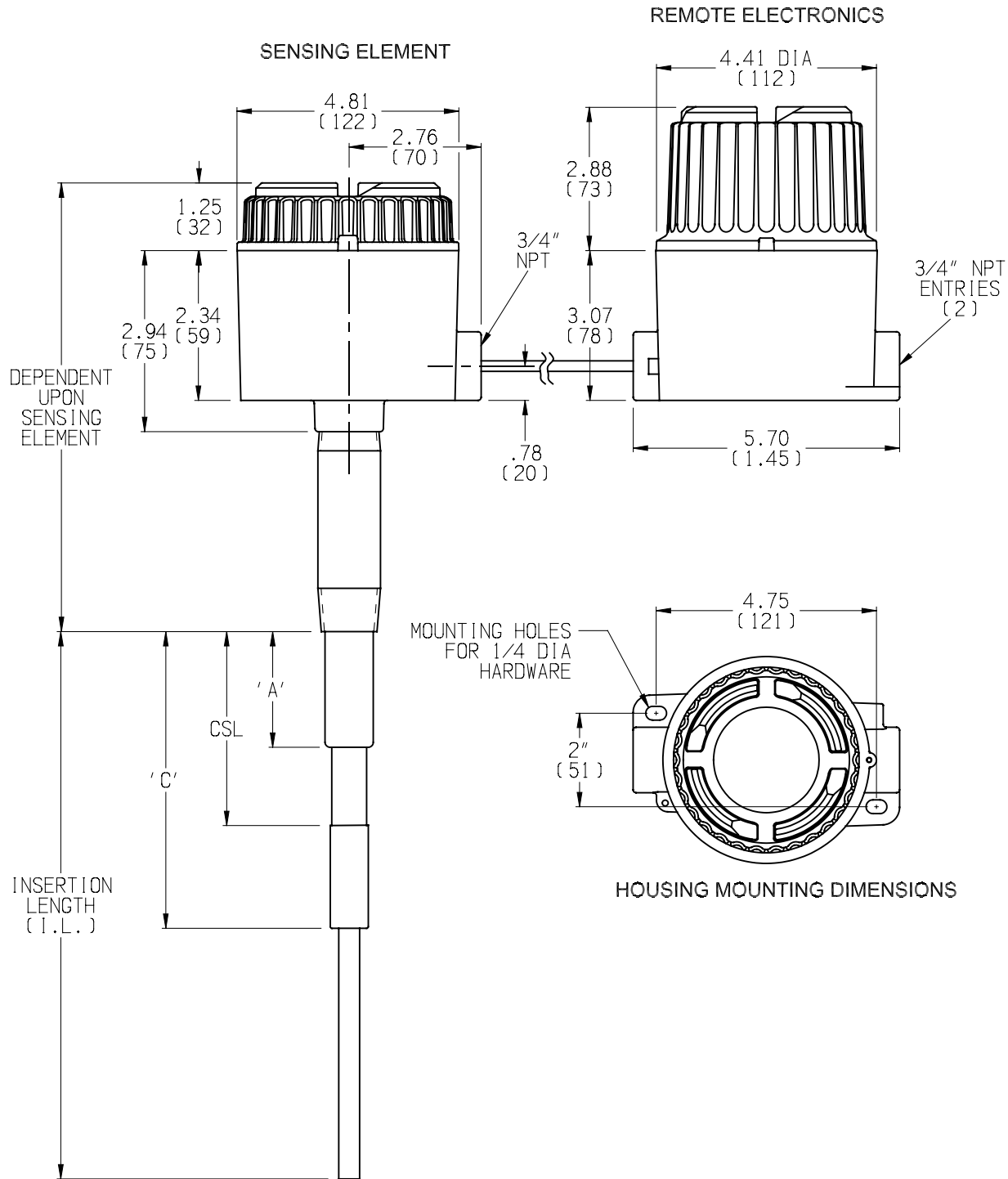


DIMENSIONS ARE IN INCHES (mm)

Point Level Measurement

Z-tron IV™ Z02X-Series

Remote Mounting Dimensions



DIMENSIONS ARE IN INCHES (mm)

Point Level Measurement

Z-tron IV™ Z4-Series

Model Numbering

Technology
Z4 Z-tron IV RF Admittance Level Measurement System

Input Power
1 24 VDC
2 115 VAC, Field Selectable
3 230 VAC, Field Selectable

Electronics

0 Integral (No Cable)	6 Remote w/ 25 Ft Gp Cable	C Remote w/ 5 Ft Hi Temp Cable	I Remote w/ 75 Ft Hi Temp Comp Cable
1 Remote w/ Out Cable	7 Remote w/ 35 Ft Gp Cable	D Remote w/ 10 Ft Hi Temp Cable	J Remote w/ 100 Ft Hi Temp Comp Cable
2 Remote w/ 5 Ft Gp Cable	8 Remote w/ 50 Ft Gp Cable	E Remote w/ 15 Ft Hi Temp Comp Cable	K Remote w/ 150 Ft Hi Temp Comp Cable
3 Remote w/ 10 Ft Gp Cable	9 Remote w/ 75 Ft Gp Cable	F Remote w/ 20 Ft Hi Temp Comp Cable	
4 Remote w/ 15 Ft Gp Cable	A Remote w/ 100 Ft Gp Cable	G Remote w/ 25 Ft Hi Temp Comp Cable	
5 Remote w/ 20 Ft Gp Cable	B Remote w/ 150 Ft Gp Cable	H Remote w/ 50 Ft Hi Temp Comp Cable	

OEM Code

Series
1 Standard

Sensing Element * temperatures > 300 °F require a 6" cooling extension

Model #	Press. &Temp.	Wetted Parts
101	700-1202-001 200 psi @ 450°F	316 SS and PEEK
103	700-1202-014 200 psi @ 450°F	316 SS and PEEK
106	700-1202-041 1000 psi @ 250°F / 300 psi @ 450°F	316 SS and PEEK
301	700-0001-022 1000 psi @ 100°F / 500 psi @ 300 °F	316 SS and TFE
325	700-1202-031 200 psi @ 450°F	316 SS and PEEK, FDA approved
327	700-0202-002 50 psi @ 300 °F / 20 psi @ 450 °F*	316 SS and TFE
701	700-0001-018 50 psi @ 300 °F	PFA
753	700-0206-101 200 psi @ 250°F	316 SS and TFE
754	700-0029-001 2 psi @ 500 °F	316 SS and TFE
755	700-0029-002 2 psi @ 500 °F	316 SS and TFE
756	700-0029-003 2 psi @ 500 °F	316 SS and TFE
757	700-0029-004 2 psi @ 500 °F	316 SS and TFE
758	700-0029-005 2 psi @ 500 °F	316 SS and TFE
760	700-0029-021 2 psi @ 500 °F	316 SS and TFE
761	700-0029-022 2 psi @ 500 °F	316 SS and TFE
762	700-0029-023 2 psi @ 500 °F	316 SS and TFE
763	700-0029-024 2 psi @ 500 °F	316 SS and TFE
764	700-0029-025 2 psi @ 500 °F	316 SS and TFE
766	700-0029-102 2 psi @ 1500 °F	316 SS and Alumina
767	700-0029-103 2 psi @ 1500 °F	316 SS and Alumina
768	700-0029-104 2 psi @ 1500 °F	316 SS and Alumina
769	700-0029-105 2 psi @ 1500 °F	316 SS and Alumina
770	700-0029-106 2 psi @ 1500 °F	316 SS and Alumina

Process gland wetted part (X)
B 316/316L SS
P PFA (700-0001-018)
X* Upon request

Process connection (XX)

A0	3/4" NPT
B0	1" NPT
BA	1" 150# RF Carbon Steel
BB	1" 150# RF 316/316L Stainless Steel
CA	1" 300# RF Carbon Steel
CB	1" 300# RF 316/316L Stainless Steel
FA	2" 150# RF Carbon Steel
FB	2" 150# RF 316/316L Stainless Steel
GA	2" 300# RF Carbon Steel
GB	2" 300# RF 316/316L Stainless Steel
IA	3" 150# RF Carbon Steel
IB	3" 150# RF 316/316L Stainless Steel
JA	3" 300# RF Carbon Steel
JB	3" 300# RF 316/316L Stainless Steel
KA	4" 150# RF Carbon Steel
KB	4" 150# RF 316/316L Stainless Steel
LA	4" 300# RF Carbon Steel
LB	4" 300# RF 316/316L Stainless Steel

XX* Many more options available upon request (ASME/ANSI, DIN)

Insertion Length in mm
 XXXXXX Length of the probe in millimeters from process connection to the bottom of the probe

Cote-Shield™ Length in mm
 XXXXXX Length of the Cote-Shield in millimeters for 3-terminal probes. Not applicable for 2-terminal probes

Inactive Length in mm
 XXXXXX Length of the inactive part of the probe that is not measured.
 This option is primarily used in Interface measurement and Desalters

Inactive Material
B 316/316L SS
N Not Applicable
X* Many more options are available upon request

Z-tron IV™ Z4-Series

Specifications

Power Requirements:

AC Units - Field Adjustable:

95-145 VAC, 50/60 Hz, 1 Watt

215-265 VAC, 50/60 Hz, 1 Watt

DC Units:

24 VDC Unit: 19-29 VDC input, 1 Watt

Sensitivity:

0.3pF or less

Operating Point Range:

0 - 80 pF (20 Turn Pot / 4 pF per Turn)

Extended range with external pad capacitor, Pad ratio 1:1

Load Resistance:

Center to Ground, 1500 Ohms

Center to Shield, 750 Ohms

Shield to Ground, 750 Ohms

Failsafe:

Field adjustable to either High-Level Fail-Safe (HLFS)

or

Low-Level Fail-Safe (LLFS)

Output:

DPDT relay closure

Contact Rating:

5A @ 120 Vac non-inductive

2A @ 230 Vac non-inductive

Ambient Temperature:

-40°F to 145°F (-40°C to 60°C)

Temperature Effect:

0.5pF/50°F

Line Voltage Effect:

0.2pF/20V @ 120 Vac

Stability:

0.15pF/6 mo. maximum shift

Spark Protection:

100 Amp

Mounting: (Probe Dependant)

¾-inch NPT (Typical)

Housing:

The standard housing meets the following classifications:

Nema 1	General-Purpose
Nema 2	Drip-Tight
Nema 3	Weather-Resistant
Nema 4	Waterproof
Nema 5	Dust-Tight
Nema 12	Industrial Use

FM approval on housing only. If agency approval is required, use the Drexelbrook PXL The Point™ instrument for point level control.

Time Delay:

0-60 seconds (¾ Turn Pot) 270° Potentiometer

Approvals

FM / FMC 3810 General Purpose



205 Keith Valley Road, Horsham, PA 19044 U.S.A.

Tel: 215-674-1234 Fax: 215 674-2731

Email: drexelbrook.info@ametek.com

Web: www.drexelbrook.com