



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

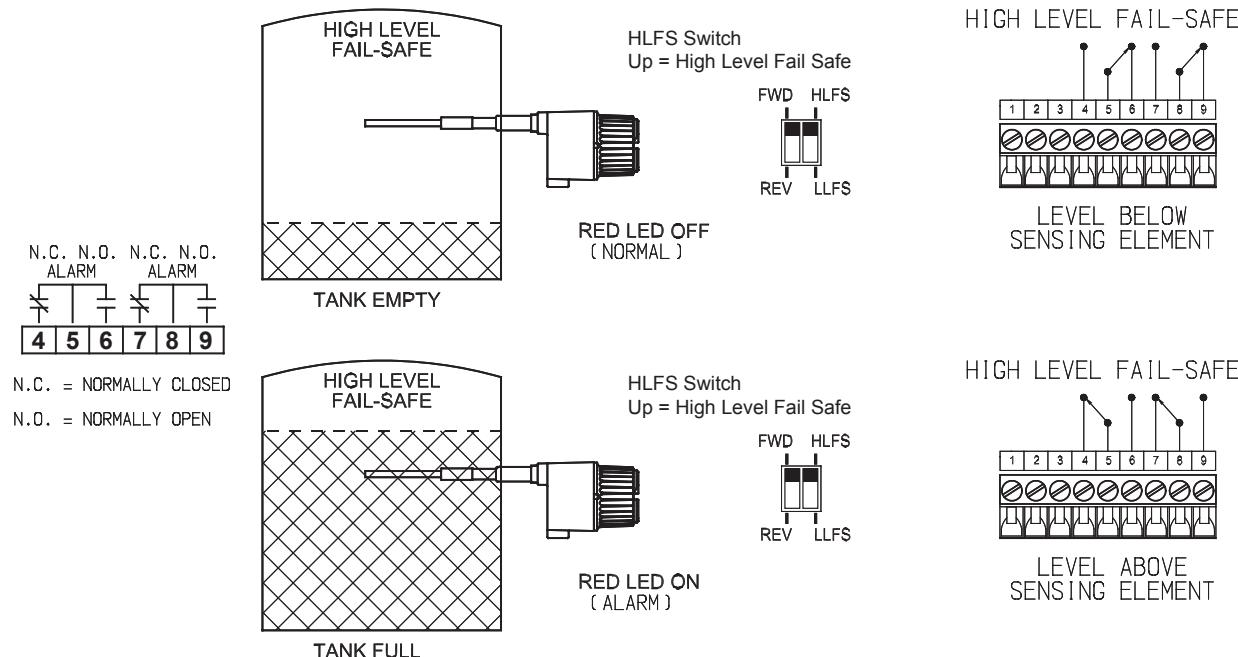


Point Level Measurement

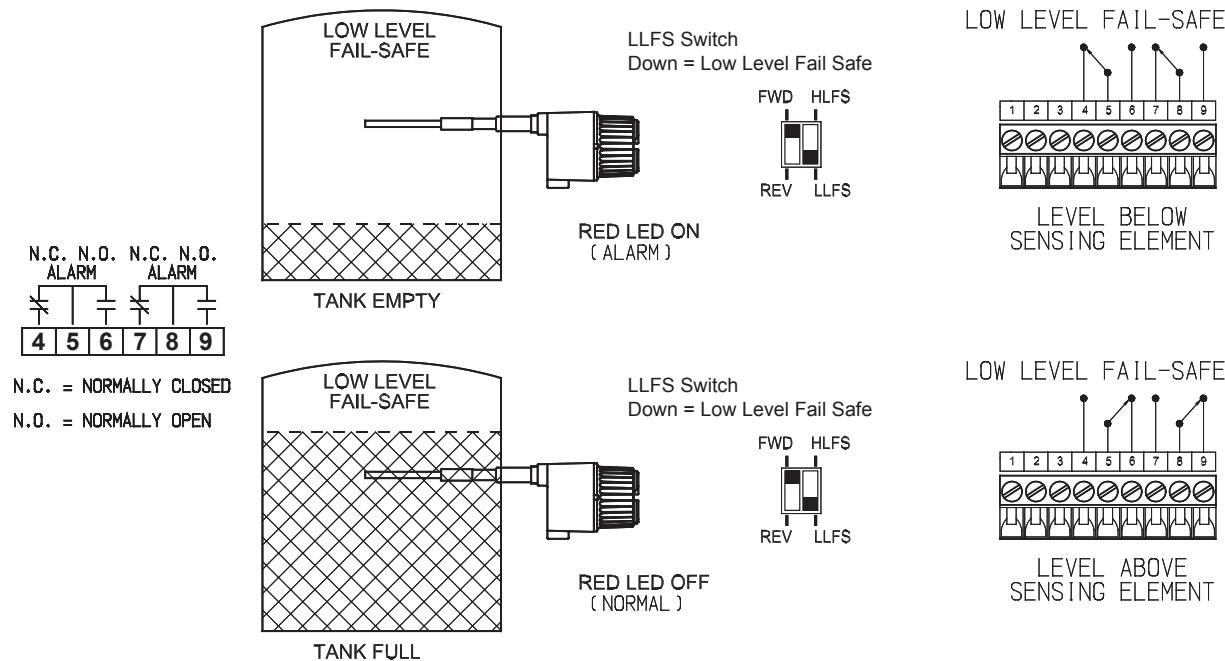
Z-tron IV™ Z02X-Series

Relay Wiring

High Level Fail Safe



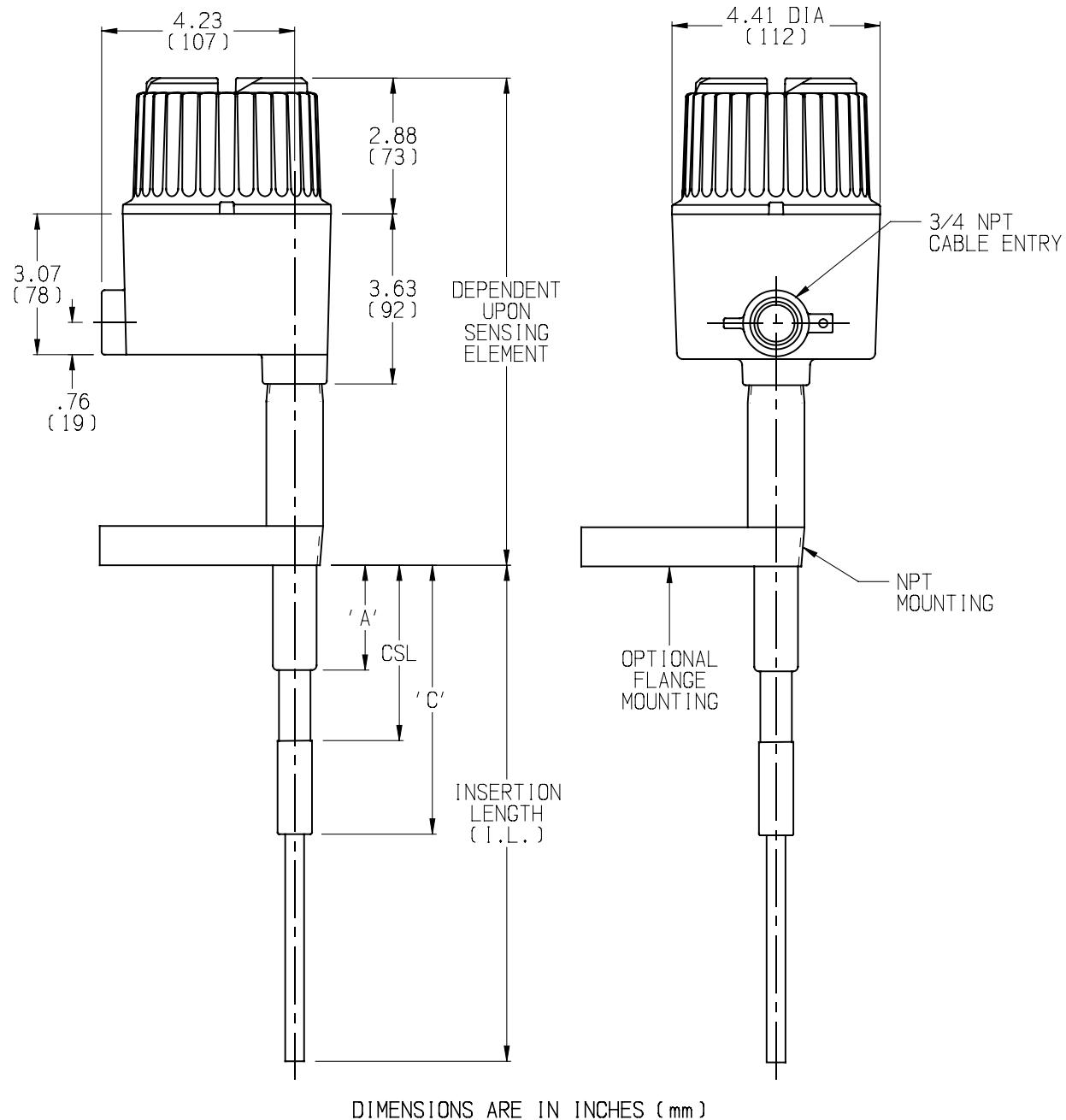
Low Level Fail Safe



Point Level Measurement

Z-tron IV™ Z02X-Series

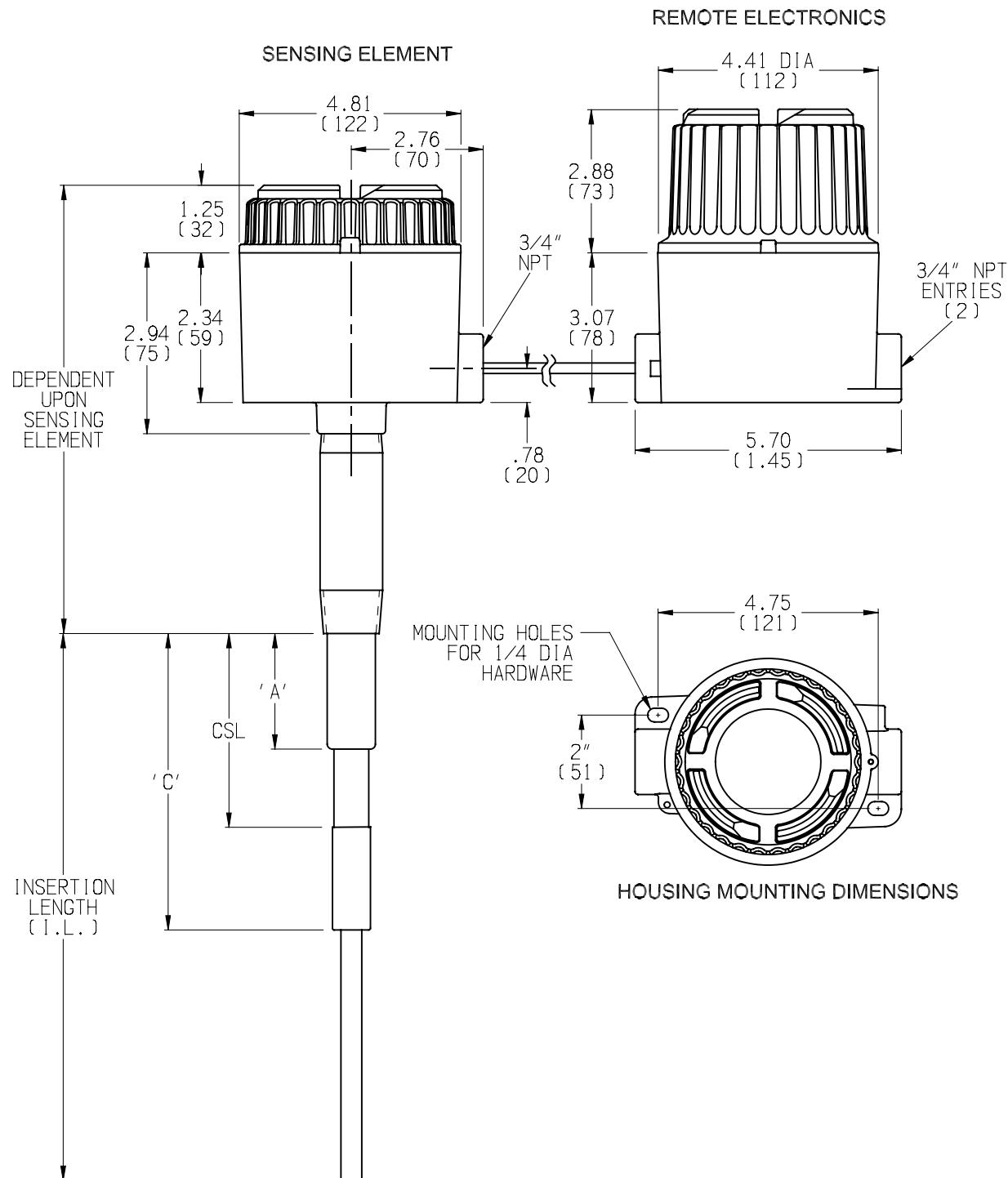
Integral Mounting Dimensions



Point Level Measurement

Z-tron IV™ Z02X-Series

Remote Mounting Dimensions



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 2 China											
● Sensing Element	Model # * temperatures > 300 °F require a 6" cooling extension 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 PEEK 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, 2 Watt
215-265 VAC, 50/60 Hz, 2 Watt
DC Units:
24 VDC Unit: 19-29 VDC input, 2 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 63°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

If hazardous area approval is required, use the Drexelbrook PXL The Point™ instrument for point level control.

Time Delay:

0-60 seconds (3/4 Turn Pot) 270° Potentiometer

Approvals

FM / FMC 3810 General Purpose

AMETEK® DREXELBROOK®

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