
ABLE
Instruments & Controls

DREXELBROOK®

A Leader In Level Measurement Solutions

AMETEK®

Universal II™ Series

Level Transmitter

Intrinsically-Safe Two-Wire Design

Two-Wire design eliminates need for line power at the field transmitter and saves on costs for associated hardware. The units can be made intrinsically safe when powered from an approved source.

Rugged Construction

No moving parts to deteriorate or break down. No routine cleaning or recalibration necessary. Rugged construction resists corrosion and abrasion.

No Calibration Shifts

No calibration shifts due to changes in temperature or material densities. Cote-Shield™ circuitry ensures dependable measurements regardless of coatings on the sensing element or build-up on the vessel wall.

Proven Performance

Based on technology that has been used successfully at major plants for over a decade.

AMETEK Drexelbrook's Universal II Continuous Level Transmitter provides dependable level measurements in all kinds of process liquids, slurries, granulars, and interfaces.

The Universal II Continuous Level Transmitter offers increased reliability, low maintenance and intrinsically safe design.

Field-proven RF technology ensures dependable level measurements in a wide range of conductivities, regardless of coatings or product build-up on the sensor . Calibration is not affected by variations in material densities or changes in temperature.

The Two-Wire, DC-Powered, Electronics can be remotely mounted up to 100 feet from the sensing element, or integrally mounted with the sensing element. All transmitters and signal wires are intrinsically safe when used with an approved power supply.

With the most comprehensive line of standard sensing elements in the industry, each system is configured to meet the specifications of your particular application.

Continuous Level Measurement

Universal II™ 508-45 Series

Specifications

Output
4-20 mAdc

Supply Voltage
11.5 - 50 Vdc at transmitter

Maximum Load Resistance
Vs (power supply) -11.5
.02
(i.e. max 625 ohms@ 24 Vdc)

Supply Voltage Error
± 0.2% maximum of full scale from 11.5 to 50 Vdc

Accuracy
± 1% nominal

Ambient Temperature Limits
-40˚F to 170˚F (-40˚C to 77˚C)

Output Isolation
4000 volt minimum signal wire to sensor

Load Regulation
0.2% for zero to maximum load resistance

Response Time
0.5 seconds (standard)
0.5-30 seconds (optional)

Allowable Static Discharge to Sensor
10 amps maximum
100 amps with optional protection circuit

Sensing Element Connection
¾-inch NPT (standard)
Flange mounting (optional)

Electronic Housing:
Meets NEMA 1-5 and 12 including NEMA 4X. Suitable for Class I, Groups A, B, C, D; Class II, Groups E, F & G; Class III; Div. 1 & 2. The housing is suitable for Explosion Proof installations in Div. 1 hazardous locations when the electronics are powered from an approved source. Refer to system Control Drawings for proper and safe installation and wiring.

Area Classifications:
Cables and Sensors are intrinsically safe for all Groups, Division 1 & 2 when the electronics are powered from an approved source. The electronics are intrinsically safe for Groups C, D, E, F & G, Division 1 when powered from an approved source. The system (electronic unit, cable and sensor) is non-incendive and non-sparking and suitable for all Groups, Div. 2 without intrinsic safety barriers.

Maximum Cable Length
100 feet (30 m) (remote mount only)

Approvals
CE Mark, KEMA (CENELEC), SSA, CSA, FM

Process Specifications Sensing Element

Sensing Element-dependent.
See UII Catalog Pages. Substitute Universal II Electronic Unit.

Typical Applications

Sensing Element-dependent
See UIII Catalog Pages. Substitute Universal II Electronic Unit.

Model Number of Electronics

408 - 82 **3** 0 - **0** **0** **9** - 0 0 **Electronic Unit**

Denotes default value

Phasing
0 = 0 degree phasing
3 = 45 degree phasing for coating rejection

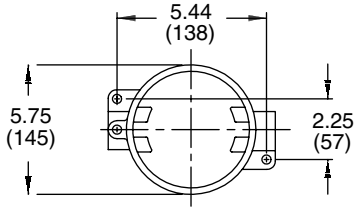
Agency Approvals
C = CSA
K = KEMA
F = FM
0 = No approvals

Frequency
0 = 100 kHz
1 = 15 kHz

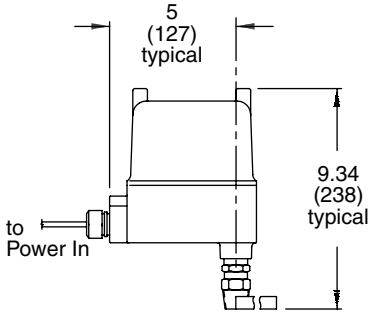
Housing options
4 = Remote Nema 4X Explosionproof
6 = Remote Nema 4X Explosionproof with Drexelcote
8 = Integral Nema 4X Explosionproof with Drexelcote
9 = Integral Nema 4X Explosionproof

Dimensions

Dimensions in inches (mm)



Top View



Integral Mount Housing

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