

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 mA_{dc}

Supply Voltage

11.5 - 50 V_{dc} at transmitter

Maximum Load Resistance

V_s (power supply) -11.5

.02

(i.e. max 625 ohms @ 24 V_{dc})

Supply Voltage Error

± 0.2% maximum of full scale from 11.5 to 50 V_{dc}

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

¼-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 UIII Catalog Pages. Substitute Universal III 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

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

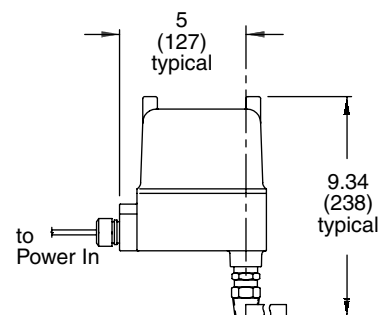
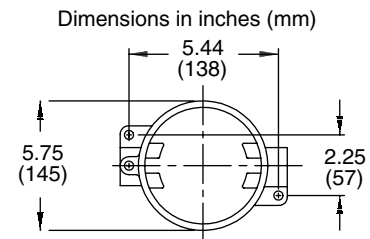
Agency Approvals
C = CSA
K = KEMA
F = FM
0 = No approvals

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

Denotes default value

Dimensions



U.S.A. Sales: 800-553-9092 • 24-Hour Service: 800-527-6297 • International Support: 215-674-1234 • Fax: 215-674-2731

AMETEK®
DREXELBROOK

205 Keith Valley Road
Horsham PA 19044 U.S.A.
E-mail - drexelbrook.info@ametek.com
Web - www.drexelbrook.com

AMETEK Nihon Drexelbrook
2 Chome • 12-7 Minami Gyotoku
Ichikawa City • Chiba 27201 Japan
Phone: 81-473-56-6513
Fax: 81-473-56-6535
E-mail: nd@nihon-drexelbrook.co.jp

AMETEK Singapore Pte. Ltd.
10 Ang Mo Kio Street 65
#05-12 Techpoint • 569059 Singapore
Phone: 65-6484-2388
Fax: 65-6481-6588
E-mail: aspl@ametek.com.sg

AMETEK Precision Instruments Europe
Rudolf-Diesel-Strasse 16
D-40670 Meerbusch Germany
Phone: 49-2159-9136-0
Fax: 49-2159-9136-39
Web: www.ametek.de