

True Level™ III Series

Smart Level Transmitter



One Transmitter Measures All Liquids

The True Level III smart RF/Admittance level transmitter, with its special compensation sensor and circuitry, measures all homogeneous liquids and slurries accurately, independent of changes in density, viscosity, electrical properties, and other process variables.

No Calibration Required... Ever

The True Level III transmitter is self-calibrating. There is no need to know the level in the tank. Use it for easy and accurate measurement of the following: •undedicated tanks •liquids with volume changes due to temperature •batch reactors •mixing tanks.

Smart Advantages

Major advantages of the True Level III transmitter include:

- Two-wire - Intrinsically Safe
- Built in tank strapping
- Choice of output in level, weight or volume
- Built-in self diagnostics
- Works with liquefied gasses
- Choice of digital or 4-20 mA transmission

The True Level III smart level transmitter calibrates itself.

Accurately measure the level of any liquid or slurry, independent of changes in density, electrical properties, viscosity, and other process variables.

The True Level III transmitter is a smart level system that measures the material's composition. It then corrects the level reading for any changes in the material's electrical or physical properties. Use the True Level III transmitter in non-dedicated vessels, "slop tanks", reactor vessels, and for unstable materials like ammonia and liquefied gasses.

Remote Configuration

Configure the True Level III transmitter from the convenience and comfort of the control room... or anywhere along the two-wire loop.

Quick and Easy Configuration

Use your existing Rosemount 275 hand held communicator or Drexelbrook's PC software to configure the transmitter, now with a HART® Device Description for easy setup.

Tamper Proof

No adjustments on the transmitter; prevents unauthorized "tweaking" or inadvertent changes in calibration.

Unsurpassed Accuracy

No other RF transmitter matches the accuracy, stability, and repeatability of the True Level III transmitter. This means smoother operation and less downtime.

Compatibility with the Future

True Level III transmitter uses standard HART protocol. Over 70 instrument manufacturers supply HART protocol for over a half million field instruments to process plants all over the world. The True Level III transmitter is also compatible with Allen Bradley PLCs through their Smart Transmitter Interface products.



Continuous Level Measurement

True Level™ III Series

Specifications

Output

4-20 mA, HART® protocol

Supply Voltage

12-30 Vdc

Consult factory for higher voltages

Maximum Load Resistance

V_s (power supply) - 12
.02

(i.e. max 600 ohms @ 24 Vdc)

Supply Voltage Error

± 0.2% maximum of full scale
for 39.2 volt change

Accuracy

± 1% of span (nominal)

Ambient Temperature Limits

-40°F to 170°F (-40°C to 77°C)

Output Isolation

4000 volt minimum
signal wire to sensor

Response Time

Less than 2 seconds with no damping
time 1-90 seconds programmable
damping time

Allowable Static Discharge to Sensor

10 amps maximum

Sensing Element Connection

(sensor-dependent)

1½-inch NPT (standard)

Flange mounting (optional)

Calibration

PC-based software,
or Model 275 Calibrator

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 FM
Approved, non-incendive, and non-
sparking and suitable for all Groups,
Div. 2 without intrinsic safety barriers.

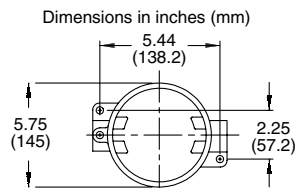
Maximum Cable Length

25 feet (7 m) (remote mount only)

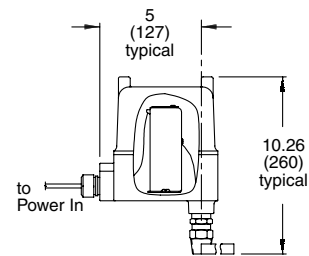
Approvals

CE Mark, KEMA (CENELEC), FM, CSA

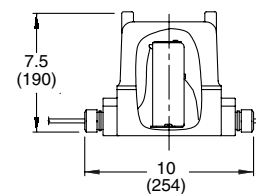
Dimensions



Top View



Integral Mount Housing



Remote Mount Housing

Model Number of Electronics

409 - 2000 - 0 0 9 - [] Electronic Unit

Agency Approvals

F = FM

0 = No approvals

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

Digital Integral Meter Option

Mounted in Dome with Viewport

Not available with Housing Options 6 and 8

If Meter is not required, these numbers are not used

M0037 = Forward/Reverse-acting for remote housings

M0038 = Forward/Reverse-acting for integral housings

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