



"Know Your Flow"

ACC-AMC DTR Series

NON-INTRUSIVE MAGNETIC CALIBRATION
MULTI SENSOR/TRANSMITTER



Analog outputs:

DTR/EC has standard 2-wire 4-20 mA current sink output. (2-wire 4-20 mA not available with DTR/LEL or 10-0234 option) DTR LEL models have 3-wire 4-20 mA current source output. With nominal 24 VDC power supply, 2-wire max loop R is 500 ohms and 3-wire max loop R is 750 ohms.

Temperature drift: Less than .1% per °C over ambient temperature range

Display: 64 x 128 pixel LCD displays 30 minute trend, bar-graph & large engineering units. Backlight active in 3-wire 4-20 mA mode.

Power supply: 10-30 VDC at less than .75 watts in 2-wire 4-20 mA
10-30 VDC at less than 3 watts in 3-wire 4-20 mA with relays

Calibration range and resolution:

ZERO = $\pm 15\%$ of full scale range with .1% resolution
SPAN = Gain adjustment range of .5-2 with .1% resolution

Housing: Instrument enclosures suitable for Class 1, Div 1,2 Group BCD

Ambient temperature range: -40°C to 60°C

Transmitter warranty: Two years

Relay/Digital Output Option: -10-0234 Relays are Form C 5amp @ 30 VDC Resistive
RS-485 is 2-wire ModBus® RTU

ACC-AMC DTR FEATURES

- Available in electrochemical, LEL, and dual electrochemical/LEL models. LEL channel also accepts 4-20 mA with special order factory configuration.
- "Smart" sensor interface allows calibration data, sensor type, range and many other variables to be stored inside the sensor head. New or recently calibrated sensors are automatically recognized.

- Allows "one man" sensor calibration in hazardous areas without area declassification
- Requires only a simple magnetic wand. No other special electronic devices are needed
- Provides continuous readout with .6" tall engineering units and graphically as a 30 minute trend or bar-graph
- Front panel alarm LED indicators are standard equipment
- Available option includes a combined 5 amp form "C" HIGH-WARN-FAULT alarm contacts and RS-485 ModBus® interface
- 4-20 mA output sends constant 3.0 mA "In Cal" signal during calibration periods
- User programmable "Power up" & "Post Cal" Delay Modes lock output at zero to allow sensor stabilization and prevent erroneous alarm trips
- Standard "Fault Supervision" circuitry continuously monitors for failed sensor; 4-20 mA output transmits 2 mA during failures
- Security mode allows locking of critical parameters
- The NEMA 7 (Explosion proof) instrument enclosure also meets NEMA 4 requirements with the standard "O" ring

The Accutron Instruments DTR Transmitter is a truly "state of the art" device. It accepts low power sensors and functions in a two wire 4-20 mA "sink" mode, or provides excitation for higher power consuming sensor in a three wire 4-20 mA "source" mode. Inputs include electrochemical toxic/O₂ sensors, catalytic LEL sensors, resistive bridge sensors and many other voltage and current input sources.

A dual transmitter mode allows one electrochemical sensor and one LEL sensor into the same DTR. Sensor data is scaled into the appropriate engineering units and displayed numerically, or graphically as bar-graphs and trends, on a backlit graphic LCD.



Accutron Instruments Inc.
P.O. Box 760 Copper Cliff,
ON P0M 1N0

Phone: 705.682.0814
Fax: 705.682.2215
info@accutroninstruments.com

www.accutroninstruments.com





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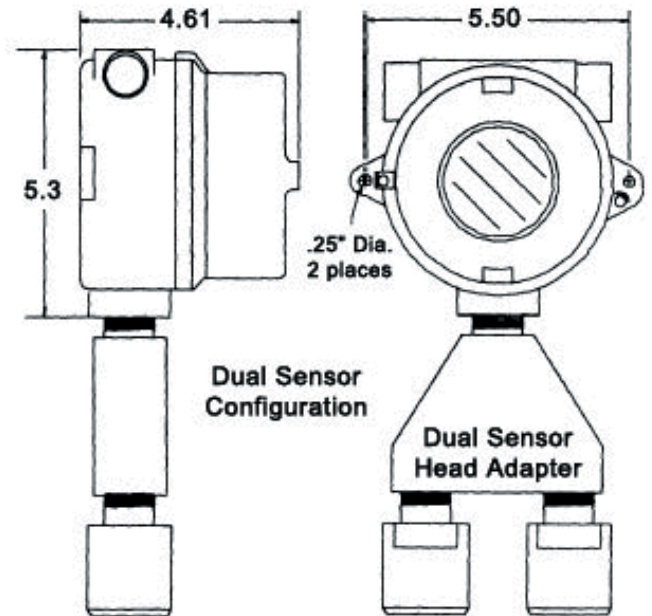
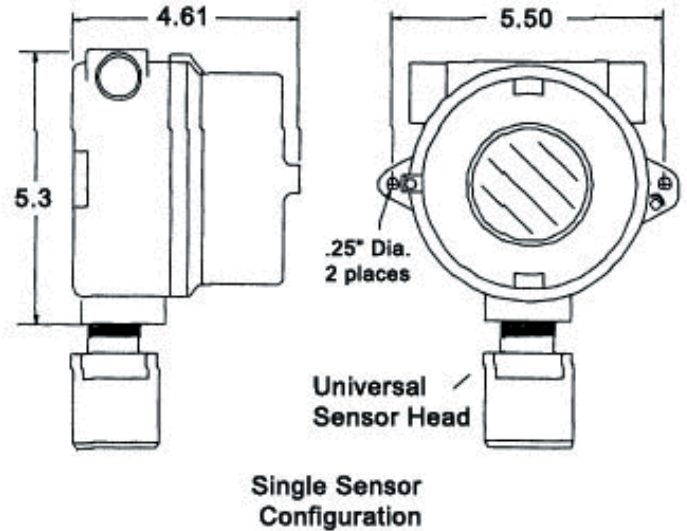
A “smart sensor” 12C interface allows a tiny memory chip in the sensor head to provide the DTR with parameters such as calibration, range, engineering units and important dates. A real time clock and calendar allows logging events such as alarms and calibrations. Calibration offset and gain factors may be viewed and are useful for predicting sensor “end of life” conditions.

Traditional “simple sensors” without integrated data storage are also easily accepted. Operator interface is via a menu driven magnetic keypad allowing complete control of the system without opening the enclosure. There are no potentiometers and all adjustments are performed through the keypad. DTR configuration variables may also be entered via a PC’s USB port.

DTR options include 5 amp Form C relays for the two level alarms and FAULT alarm. This PCB includes a ModBus® RS-485 serial port. Visual LED alarm & RS-485 Tx / Rx indicators located on the front panel are standard.

Users may program power warm up and calibration exit delays to avoid false alarms. Delays hold outputs at zero until sensor signals stabilize. IN/OUT alarm trip delays may also be programmed. A security menu allows entry of an authorization code to lock critical parameters.

ALL DIMENSIONS IN INCHES



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