Introducing the TDRO10A
High-Performance Programmable Meter for Analog Sensors & Transducers

SERIES: TDRO10A

FEATURES

- Zero, Span, and analog outputs are all 100% adjustable
- Programmable switch point for each digital output
- 16-Bit analog to digital converter
- Six Digit LED Display (Five Digit for analog display)
- Panel mountable
- 0.075% Accuracy
- 67 milliseconds Update Rate
- 0-4 Programmable PNP outputs
- IP 65/Nema 4 Ingress Protection
- Compact 1/8 DIN Housing

DESCRIPTION

Transducers Direct is the Top Tier developer when it comes to accuracy, performance and quality Meter Displays. The TDRO10A Series consists of a leading brand of higher performance, raising the bar to a 0.075% accuracy spec and a 67 millisecond update rating. The Digital Displays handle a broad spectrum of DC voltage and current ranges, and are configured to handle anything from pressure transducers to potentiometric inputs.

This series truly provides the user with an optimal Digital Display device that has built in electronics to handle virtually any analog amplified output sensor or transmitter defining its value as second to none.

DIMENSIONS

Dimensions are for reference only

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**ELECTRICAL CONNECTIONS**

**SPECIFICATIONS**

- **Supply Voltage**
  - 17-28 VDC (nominal 24 VDC) with use of 4-20mA current sensors
  - 11.5-28 VDC (nominal 24 VDC) with use of voltage sensors (0-10V max)

- **Temperature Range**
  - 0 to 70°C (32 to 158°F)

- **Accuracy**
  - 0.075% of reading typical, 0.15% max (± digit count)

- **Resolution**
  - 16-bit analog to digital converter

- **Update Rate**
  - 67 ms

- **Interface**
  - 0-10 VDC or 4-20 mA, over-voltage protection

- **Display**
  - Six-digit LED (five usable analog), 0.56 in, 6 ms refresh rate

- **Housing**
  - Compact 1/8 DIN, panel-mountable & IP65/Nema 4 ingress protection

- **Programming Capability**
  - Zero and span 100% adjustable
  - Number of display digits & decimal point
  - Programmable switch-point for each digital output

- **Analog Output**
  - TDRO10A2 One 16-bit voltage output, 0-10 VDC, 100% adjustable

- **Digital Output**
  - TDRO10A1 Four programmable PNP outputs, 100 mA per output max
  - TDRO10A2 Two programmable PNP outputs, 100 mA per output max

**Current Draw**

- TDRO10A0
  - 9.5 mA max

- TDRO10A1
  - 9.5 mA (Base Meter)
  - +400 mA (4*100 mA, digital outputs)
  - 409.5 mA max

- TDRO10A2
  - 9.5 mA (Base Meter)
  - +200 mA (2*100 mA, digital outputs)
  - +1 mA (Ana V out to high impedance in >1 MΩ)
  - 210.5 mA max

**Panel Cutout:**

The meter mounts into a standard 1/8 DIN cutout. The illustration below shows the suggested panel cutout.

**SIDE VIEW:**

- The TDRO10A0 is the base standard when it comes to digital displays. This model features an analog input signal with no relay drivers and no analog output.

- The TDRO10A1 is an innovative design consisting of specific digital functionality. This model features an analog input with 4 relay drivers and no analog output.

- The TDRO10A2 is a novel design when it comes to digital displays. Consisting of an analog input feature with 2 relay drivers and an auxiliary capability for analog output.

**ORDERING**

- **Series**
  - TDRO10A0
  - TDRO10A1
  - TDRO10A2

**Note:**

By design the meter is not capable of reading a negative input voltage.

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**Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use. While we provide application assistance personally, through our literature and the Transducers Direct web site, it is up to the customer to determine the suitability of the product in the application.**