

TRUE TENSION Model TI14 Tension Indicator

The TI14 TrueTension Indicator is a general purpose device for measurement and display of total web tension. It is typically used on continuous web processing, converting or printing machinery. The indicator is also used in ribbon, wire, cable and filament winding and processing. The TI14 comes as a compact, enclosed unit with a large analog (or optional digital) tension readout. It measures tension by taking an output signal from any DFE tension transducer. The transducer signal is amplified and displayed as actual tension on the indicator meter. Voltage

and current outputs, proportional to tension, are available to interface with data recorders, control systems, computers or drive systems. An optional Tension Limit Switch activates at high or low preset tensions. The TI14's durable, steel enclosure can be mounted easily to a wall or machine frame. It uses two circuit cards with a terminal strip for all electrical connections except AC power. AC power has a separate terminal strip separated from data connections.

FEATURES

- 115V/ 230Vac 50/60Hz power input.
- Operator devices include: 3 1/2" analog tension meter, rocker on/off switch, and green LED for AC power.
- 0 to ± 10 Vdc and 4 - 20mA outputs proportional to tension.
- Rugged steel enclosure mounts to wall or machine frame.
- Amphenol connectors for transducer cables.
- 0-1 mA current output for a second remote tension meter
- Choice of standard meter scales: 0-1, 5, 10, 25, 50, 100, 150, 250, 500, 1000.

OPTIONS

- **230V Power Input (230).** 230Volt 60/50 Hz Ac power input.
- **Attached Power Cord (APC).** Type SJ, 3 conductor, 5' long.
- **Dual Calibration (DC).** Two meter scales for meter and/or two running setups and front panel switch for quick and easy selection. LED indicates selection.
- **Digital Meter (DM).** 1" High, 3 1/2 Digit LED tension meter.
- **Extended Range (XRE).** Indicator provides twice the output signal for a given load allowing accurate measurement at lower tensions. Transducers used must have XR option.
- **0-10V isolated (I10).** DC output.
- **Negative 10V Output (N10).** 0 to -10V output.
- **Non-standard meter scale (NMS)** (single or dual range, specify scale).
- **Tension Limit Switch (TLS).** Activates at a preset adjustable trip point with both High and Low adjustable set-points. Protects machinery from excessive tension and can detect web breaks.

BENEFITS

- Actual tension displayed on large, easy-to-read meter.
- Reduces waste and web breaks.
- Improves quality and productivity by making it easier to run proper tension.
- Reveals machine problems which affect tension.
- Enables machine operator to determine and produce consistent web tension.
- Low cost--Fast payback.
- Easy to install and use.

ACCESSORIES

- **Remote Tension Meter.** A separate tension meter for remote installation. DFE P/N: 722-1385.
- **Remote Tension Meter.** Tension meter in steel enclosure for protection with 2-pin amphenol connector. DFE P/N: 723-1453.

SPECIFICATIONS

Power Input: Voltage/Current
115 VAC, 50/60 Hz single phase @ 1/8 amp
230 VAC, 50/60 Hz single phase @ 1/16 amp

Tension Outputs:
0 to +10 Volts DC OR 0 to -10 Volts DC @2mA
4-20mA
Two 0 to 1 mA outputs (1 internal, 1 external)

Transducer Input Signal:
500 mVdc at rated load per pair

Transducer Excitation:
5 Vdc regulated (10 Vdc with XRE option)

Zero Range:
95% of transducer rating (min.)

System Accuracy:
1 - 3% typical

Calibration Range: 25:1

Temperature Range:
32°F to 104° F (0° to 40° C)

Tension Meter:
3.5" x 1" Analog, 2%, 1mA, 48 ohm

Standard Tension Meter Scales:
0-1, 5, 10, 25, 50, 100, 150, 250, 500, 1000

Mating Transducer Cable Connectors:
Amphenol MS3106A-10SL-3S

Weight:
6.6 lbs. (3 KG)

Tension Limit Switch Relay Contacts: (Option)
SPDT rated @ 10A/30Vdc, 10A/250 Vac

ORDERING INFORMATION

You may order by description, or by matching the labeled digits with your choices.

Example: T114-50-DM
T114-25/50-DC

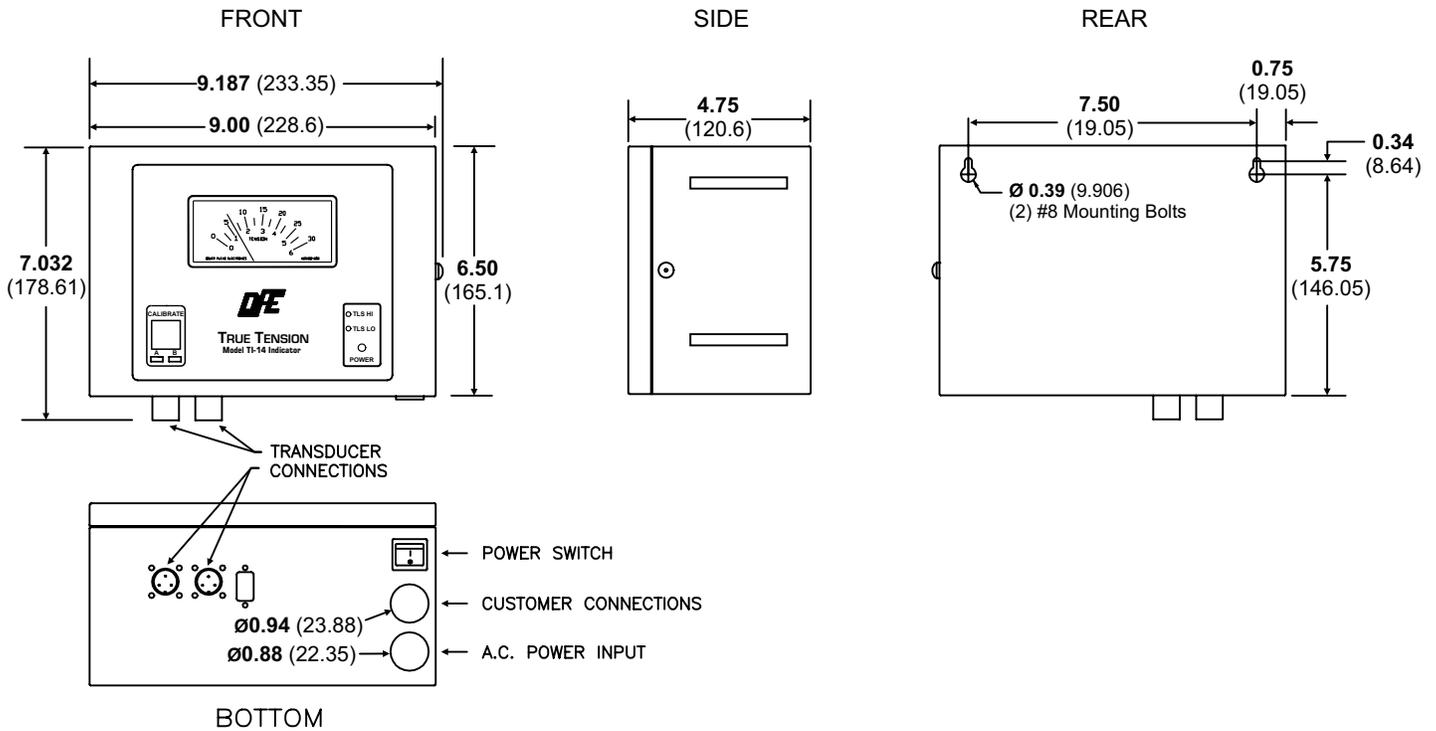
T114 - XX - OPTIONS

METER SCALE ¹	OPTIONS
1 = 0 - 1	230 - 230V Power Input
5 = 0 - 5	APC - Attached Power Cord
10 = 0 - 10	DC - Dual Calibration ¹
25 = 0 - 25	DM - Digital Meter
50 = 0 - 50	I10 - Isolated 10 V Output
100 = 0 - 100	N10 - Negative 10V Output
150 = 0 - 150	NMS - Non-standard Meter Scale
250 = 0 - 250	TLS - Tension Limit Switch
500 = 0 - 500	XRE - Extended Range ²
1000 = 0 - 1000	Z - Special (SPR)

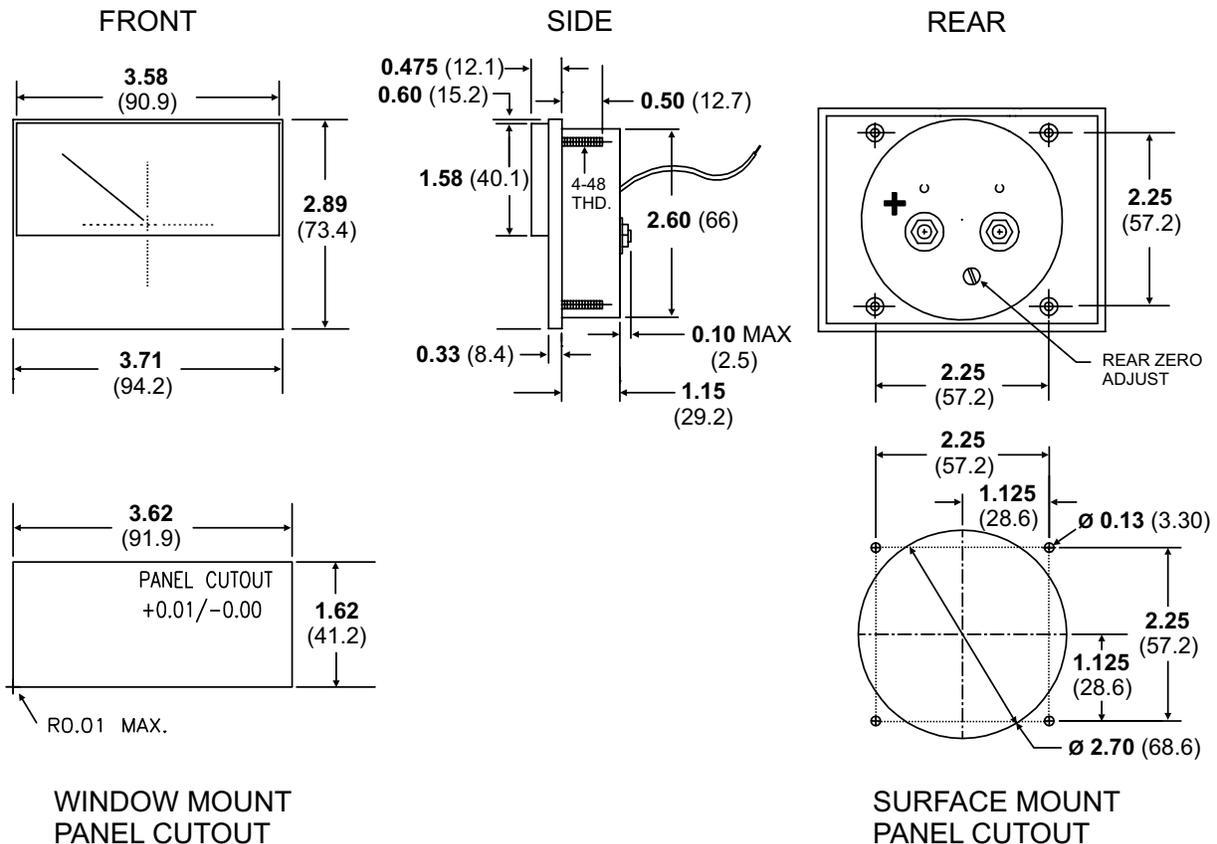
Notes:

- Specify both meter scales, separated by a slash when ordering DC (Dual Calibration) option.
- XRE option requires transducers to have XR option.

DIMENSIONS inches (mm)



DIMENSIONS OF OPTIONAL REMOTE TENSION METER inches (mm)



DFE THE TENSION CONTROL SPECIALISTS
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