

TRUE TENSION™ INDICATOR

Models TI-17A / TI-18

The TrueTension™ TI-17A/18 indicators are versatile transducer interfaces (amplifiers) for monitoring tension in any tension zone on web or filament processing machinery. The primary function of the TI-17A/18 indicators is to take a signal from tension transducers installed in the web path and to provide an output signal (typically 0-10Vdc) proportional to tension to a drive, controller or a PLC.

The only difference between the TI-17A and the TI-18 indicators is their power input requirements. The TI-17A operates on 115Vac 60Hz (230Vac 50Hz optional) and the TI-18 operates on 24Vdc, power supplied separately.

The standard configuration for either the TI-17A or the TI-18 is a 3 x 5" circuit card with no enclosure. Other configurations include the card on a mounting bracket or in a complete enclosure, each with or without DIN-rail clip. These three configurations with the optional circuit card connector for external electrical connections are pictured

BENEFITS

- Improves machine operation and productivity by making it easier to run proper tension.
- Gain higher level of process control and a reduction of waste, web-breaks, and other web problems.
- Low-cost component for complete tension measurement or control system.
- Modular package for versatile, flexible mounting and setup.

OPTIONS

- **230 Volt Input (230).** 230Volt 60/50 Hz Ac power input (TI-17A only).
- **20mA Output (420).** 4 to 20 mA current output.
- **Isolated 10V Output (I10).** A 0 to 10Volt output which is not connected to circuit common or to earth ground.
- **Isolated 20mA Output (I420).** A 4 to 20mA output which is not connected to circuit common or to earth ground.
- **Extended Range (XRE).** 10 Vdc excitation for Extended Range transducers. Allows measurement of a much lower tension than usual. Transducers must also have the XR option.

on the cover. Two versions are available, the vertical (V) mount and the horizontal (H) mount. The only difference between the H and V versions is the orientation of the adjustment pots.

The range of package choices, mounting versatility and low-cost make the TI-17A or TI-18 indicator the perfect device for web tension monitoring. The TI-17A and TI-18 offer the standard output choice of 0-10Vdc non-isolated, or optional 4-20mA non-isolated or 0-10Vdc or 4-20ma *isolated*. Dual calibration settings for a pair of tension transducers are standard. Other standard features include 0-1 mA damped output for a tension meter, and adjustments for tension zeroing, calibration and meter damping. The TI-17A/18 indicators in enclosures were designed to meet European low voltage and EMC directives. See Ordering Information next page.

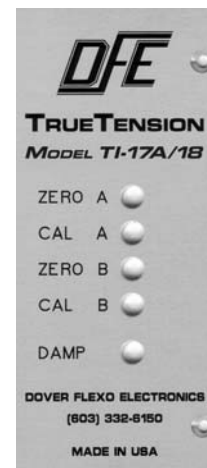
FEATURES

- 115V/230Vac 50/60Hz power input (TI-17A) or 24Vdc (TI-18).
- Circuit Card with terminal strip for all electrical connections including power.
- 0-10Vdc or 4-20mA outputs proportional to tension. (0-10Vdc or 4-20mA isolated outputs optional available)
- 0-1 mA output for a tension meter.
- Meter damping adjustment. Minimizes meter jitter. (Used with optional tension meter).
- Dual Calibration. Allows two calibration settings.

ACCESSORIES

- **Mating Circuit Card Connector.** Allows easy connection of external wiring (Horizontal mounting style only; connector is included for vertical mounting).
- **Tension Meter.** Analog, 1 mA, 48 ohm movement. Must be installed by user. DFE Part# 722-1385. This meter also available in its own enclosure. DFE Part# 723-1453.
- **Nonstandard Meter Scale.** Any nonstandard meter scale. See Specifications for standard scales.

TI-17A/TI-18 Legend Plate



SPECIFICATIONS:

Power Input:

TI-17A:

Voltage: 115/230Vac, 50/60 Hz (jumper selectable)

Current: 0.125/0.063A

TI-18:

Voltage: 24Vdc

Current: 125mA

Tension Output:

0-10Vdc @ 2mA, OR 4-20mA (optional), jumper selectable

0-1mA damped, for opt. tension meter

Transducer Voltage Supply:

5Vdc regulated (10Vdc for XR), jumper selectable

Transducer Input Signal:

500 mVdc at rated load (1.00Vdc for XR)

Zero Range:

95% of transducer rating

Calibration Range:

16:1

Temperature Range:

32°F to 104°F (0°C to 40°C)

Weight:

0.5 lbs to 2.0 lbs (0.23kg to 0.91 kg) depending on version

Mating Circuit Card Connector

PCD#ELD15110 for horizontal mounting.

DFE P/N:106-0155.(Connector included for vertical mounting)

Optional Tension Meter

Analog, 1mA, 48 ohm (typ) (DFE P/N 722-1385)

Meter in enclosure also available. (DFE P/N 723-1453)

Standard Scales for Optional Remote Tension Meter

0 to 1, 5, 10, 25, 50, 100, 150, 250, 500, 1000

ORDERING INFORMATION

You may order the TI-17A or the TI-18 by description or by specifying the code below by matching each labeled digit with your choice.

Examples: TI-17A - VBLE - I10, TI-18 - H - 420

OR **TI-17A** - **XXXX** - **OPTIONS (Separated by commas)**
TI-18

H = Horizontal Card only	230 = 230Vac Input ¹
HC = Horizontal with Connector	420 = 20mA Output
V = Vertical Card only	I10 = Isolated 10Vdc Output
VB = Vertical with Bracket	I420 = Isolated 20mA Output
VBL = Vertical with Bracket and Legend Plate	XRE = Extended Range ²
VBLE = Vertical with bracket, legend plate, and enclosure ³	Z = Special (SPR)
VD = Vertical with Bracket and DIN clip	
VDL = Vertical with Bracket, DIN clip, and Legend Plate	
VDLE = Vertical with bracket, DIN clip, legend plate and enclosure ³	

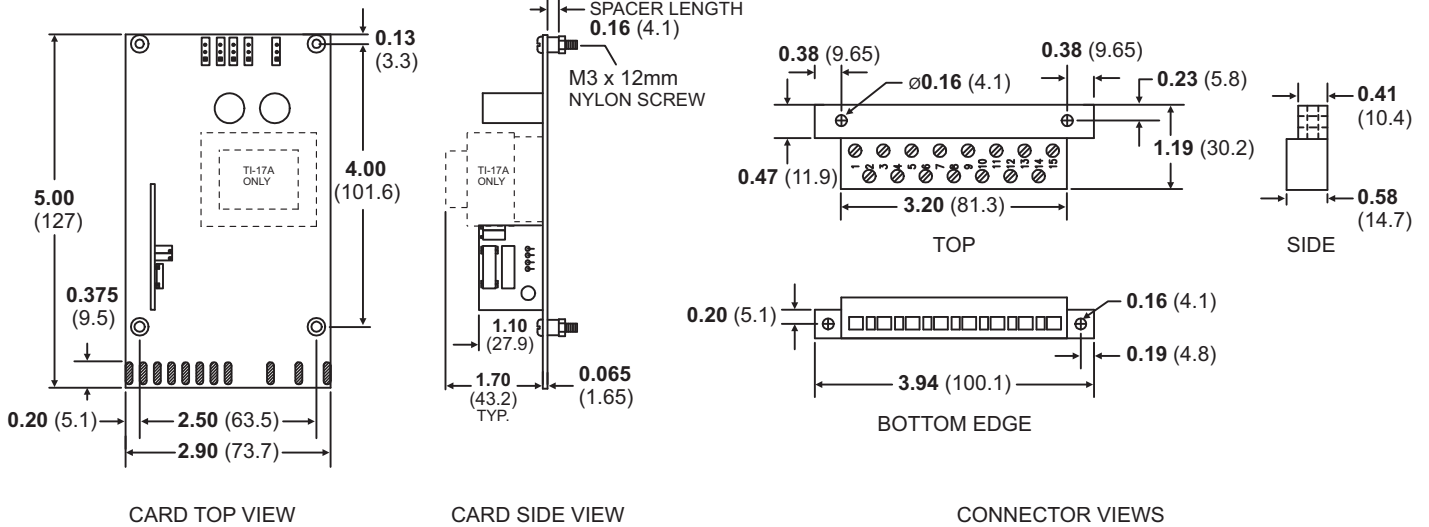
NOTES:

1. TI-17A only.
2. XRE option requires that transducers have XR option.
3. CE marked (TI-17A only)

DIMENSIONS

inches (mm)

HORIZONTAL MOUNTING



VERTICAL MOUNTING

