



# APPLICATION DATA

NO. 8802TI4

## TI4 TENSION INDICATOR



### DESCRIPTION

The TI4 is a general purpose device which displays actual web tension in printing presses, coaters, laminators, winders, extruders, paper machines or any machine which processes a continuous web of paper, film, foil, textile, tape, wire, filament or other material. The TI4 uses either one or two DFE tension transducers to measure web tension. The transducer signal is amplified and displayed on a meter which is calibrated to read actual tension. Two standard voltage outputs and an optional current output, proportional to tension, are available to supply recorders, computers or drive systems. Optional tension limit switches provide relay contact closures if desired tension is not maintained. The TI4 is housed in a heavy steel enclosure having all operator devices mounted in the cover. The circuit card has a plug-in terminal strip for all electrical connections except AC power.

### BENEFITS

- Displays actual tension. No guesswork.
- Reduces waste and web-breaks and improves quality and productivity by making it easier to run proper tension.
- Reveals machine problems which affect tension.
- Easy to determine proper tension for any material and use that tension consistently at any and all times.
- Detects broken web.
- Detects excess tension.

### STANDARD FEATURES

- NEMA 12, 13 steel enclosure, 8x10x4, with all operator devices in cover, wall mounted.
- MS connectors for transducer cables.
- 7/8" hole for AC power wiring.
- Single circuit card with un-pluggable terminal strip for all electrical connections except AC power.
- Operator devices include: 6" analog tension indicating meter, toggle switch and red indicating light for AC power.
- 120 volt 60 Hz AC power input.
- 0-100 millivolt DC output proportional to tension.
- Adjustable 10 volt DC output proportional to tension.
- Choice of standard meter scales: 0-1, 5, 10, 25, 50, 100, 150, 250, 500, 1000.

# DOVER FLEXO ELECTRONICS, INC.

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# SPECIFICATIONS

Power Input: Voltage ..... 120 volts, 60Hz  
 Current ..... 0.25 amp

Outputs: Low Voltage ..... 0-100 mVDC at 2 ma,  
 proportional to tension  
 High Voltage ..... Adjustable 0-3.5  
 to 0-13 VDC at 2 ma, proportional to tension

Transducer Voltage Supply ..... 5VDC regulated  
 Transducer Input Signal ..... 500 mVDC (min.)  
 per pair at rated load

Meter ..... 6" analog taut band 100 ma, 2%,  
 with solvent proof front

Zero range ..... 95% of transducer rating (min.)  
 Calibration range ..... 25:1  
 Temperature range ..... 0-40° C  
 Meter Scale ranges ..... 0-1, 5, 10, 25, 50, 100,  
 150, 250, 500, 1000

Transducer cable mating connector ..... Amphenol  
 MS3106A-10SL-3S

Weight ..... 10 lbs.

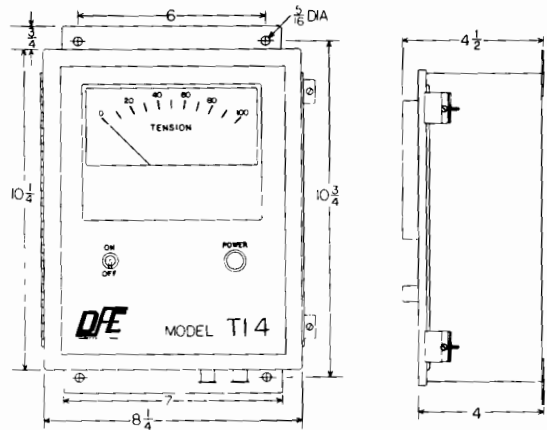
# OPTIONS

No.	Description
CC	T14 circuit card only
H6	T14 less enclosure but with 6' long wire harness to legend plate with all operator devices
ATM	Auxiliary tension meter for remote mounting
RME	Auxiliary or remote tension meter in 6x8x4 enclosure
DM	Digital meter; 3½ digit, red LED ½" high (includes 5V power supply)
20M	20 milliamp output proportional to tension
DC	Dual calibration (includes dual meter scale and switch)
NMS	Non-standard meter scale (single or dual range, specify scale)
220	220 volt AC power input
ST	Single transducer operation (except NW, TR)
N10	Negative 10 volt output
5V	Extra 5 volt DC power supply (used with digital meter)
APC	Attached power cord, type SJ, 3 conductor, 5' long
SC	Smaller circuit card (7x7 instead of 9x7)
LE	Large enclosure (10x12x5)
TL5	Low and High tension detectors with two separate SPDT relay outputs (requires "LE" option)

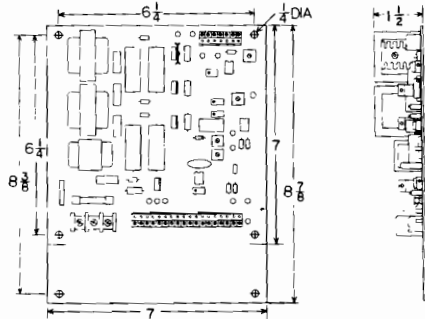
# DIMENSIONS

(Expressed in inches)

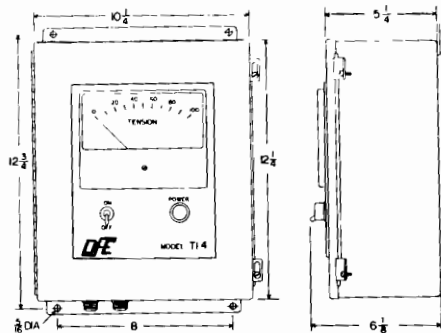
## ENCLOSURE



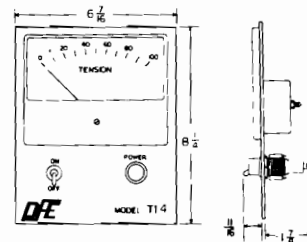
## CIRCUIT CARD



## LARGE ENCLOSURE



## LEGEND PLATE



**TO ORDER:** Specify model and option numbers and meter scale; example: T14 — 20M, H6, O-150.

**DOVER FLEXP ELECTRONICS MANUFACTURES:** Tension Transducers, Tension Indicators, Rewind Tension Controllers, Unwind Tension Controllers, D.C. Motor Tension Controllers, Pneumatic Tension Controllers, and Electric Tension Controllers.