



APPLICATION DATA

No. 8710E8

E8 ON/OFF TENSION CONTROLLER



DESCRIPTION

The E8 On/Off Tension Controller is a special purpose device. Designed with an adjustable width deadband and a set point to define the center of the deadband, the E8 is used in applications where the tension changes happen infrequently or gradually, and a relatively wide range of tension is acceptable.

The E8 contains a tension indicator and a pair of tension level detectors, one for the high end of the deadband and one for the low end. When the tension, as measured by DFE strain gauge transducers, moves out of the deadband, either the high or low tension detector de-energizes its relay. Each relay contains both a normally open and a normally closed contact.

Each tension level detector, high and low, has an adjustable delay and operates an LED on the front panel to show the operator the status of the controller. A large tension meter constantly displays the actual web tension. The deadband can be adjusted from 2% to 50% of the meter scale.

The E8 has an industrial quality steel enclosure with an aluminum legend plate, containing all operator

devices, on the hinged front panel. The deadband width adjustment is a large knob located inside the enclosure. The E8 can be supplied without the enclosure, with the operator devices mounted in the legend plate, and connected by a wire harness to the electronic subplate. Several standard and optional voltage and current outputs, proportional to tension, allow the E8 to be used with recorders, computers, and other control systems.

BENEFITS

- Automatic control of tension within a defined range.
- Actual web tension is displayed on meter.
- Reveals machine problems which can affect tension.
- Wide, adjustable deadband; centered on set point.
- Reduces waste and improves productivity.
- Easy to start-up and use.
- Can be used with all DFE Tension Transducers.

DOVER FLEXO ELECTRONICS, INC.

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APPLICATIONS

The E8 is used in applications where the process requires a specific action when the tension falls below or exceeds a pre-set level. Typical applications include forward/reverse control of the motor on a PIV, or control of screw jacks on paper machine felt tension control systems.

The E8 can also be used as a very versatile tension indicator, with the relay action operating alarms to call an operator's attention to unacceptable tension levels.

STANDARD FEATURES

- NEMA 12, 13 steel enclosure with all operator devices in cover; 12x12x6
- MS connectors for transducers.
- 7/8" hole for AC power.
- Circuit cards have terminal strips that unplug.
- 120 volt AC power.
- Large knob for deadband adjustment is inside enclosure.
- Adjustable delay on both high and low ends of deadband.
- Operator devices include: 6" analog tension meter, toggle switch and red indicator lamp for AC power, (2) LED to indicate tension out of deadband, high or low; tension set point knob.

SPECIFICATIONS

Power input:	
Voltage	120 volts, 60Hz
Current	0.25 amp
Outputs:	
Low voltage	0-100 mVDC @ 2 ma proportional to tension
High voltage	Adjustable 0-3.5 to 0-13 VDC @ 2 ma, proportional to tension
Transducer voltage supply	5 VDC, regulated
Transducer input signal	500 mVDC (min.) per pair at rated load
Zero range	95% of load rating of 1 transducer (minimum)
Meter	6" analog taut band, 100 microamp, 2%, with solvent proof front
Standard meter scales	0-1, 5, 10, 25, 50, 100, 150, 250, 500, 1000
Calibration range	25:1
Temperature range	0-40° C
Weight	20 lbs.
Control Relays	2 amp, SPDT (Form C)

OPTIONS

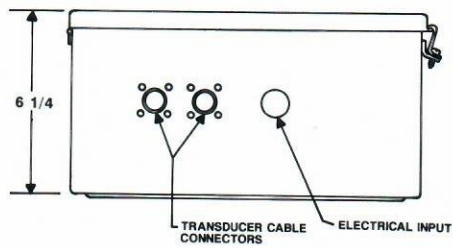
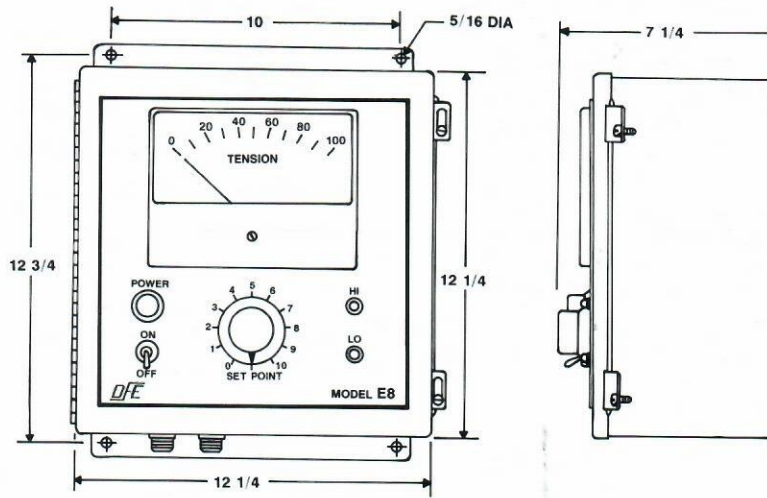
No.	Description
CC	E8 less enclosure and operator devices
H6	E8 less enclosure, but with 6' long wire harness to legend plate, with all operator devices installed and wired.
ATM	Auxiliary tension meter for remote mounting
RME	Auxiliary or remote tension meter in 6"x8"x4" enclosure
DM	Digital meter — 3½ digit, red LED ½" high (includes 5V power supply)
420M	4-20 milliamp DC output, proportional to tension
020M	0-20 milliamp DC output, proportional to tension
10V	0-10 volt DC adjustable output, proportional to tension. Range = 0-3.5 to 0-13
DC	Dual calibration (includes dual meter scale and switch)
NMS	Non-standard meter scale (single or dual range, specify scale)
220	220 volt 50Hz AC power input
ST	Single transducer operation (except NW & TR)
5V	Extra 5 volt DC power supply (used with digital meter)
APC	Attached power cord, Type SJ, 3 conductor, 5' long
RTA	Remote tension amp (no tension amp in E8)

TO ORDER: Specify model, option numbers, and meter scale; example: E8-220, H6, 0-150.

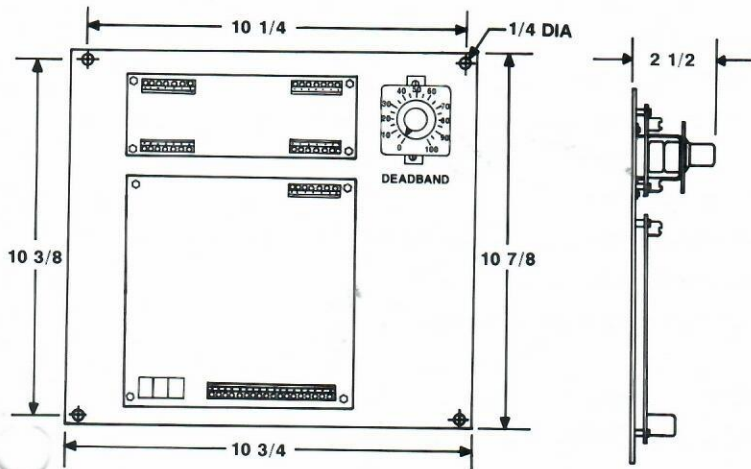
DIMENSIONS

(Expressed in inches)

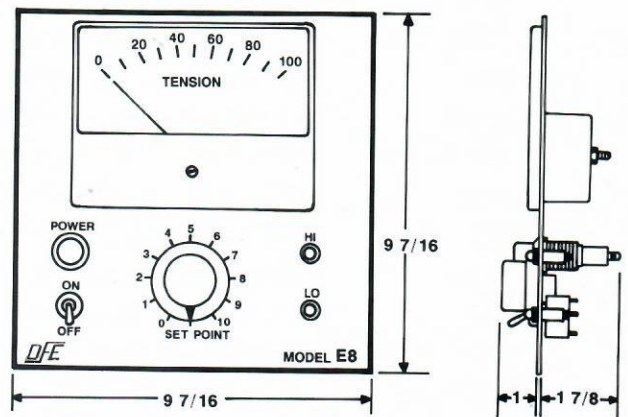
ENCLOSURE



PANEL



LEGEND PLATE



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