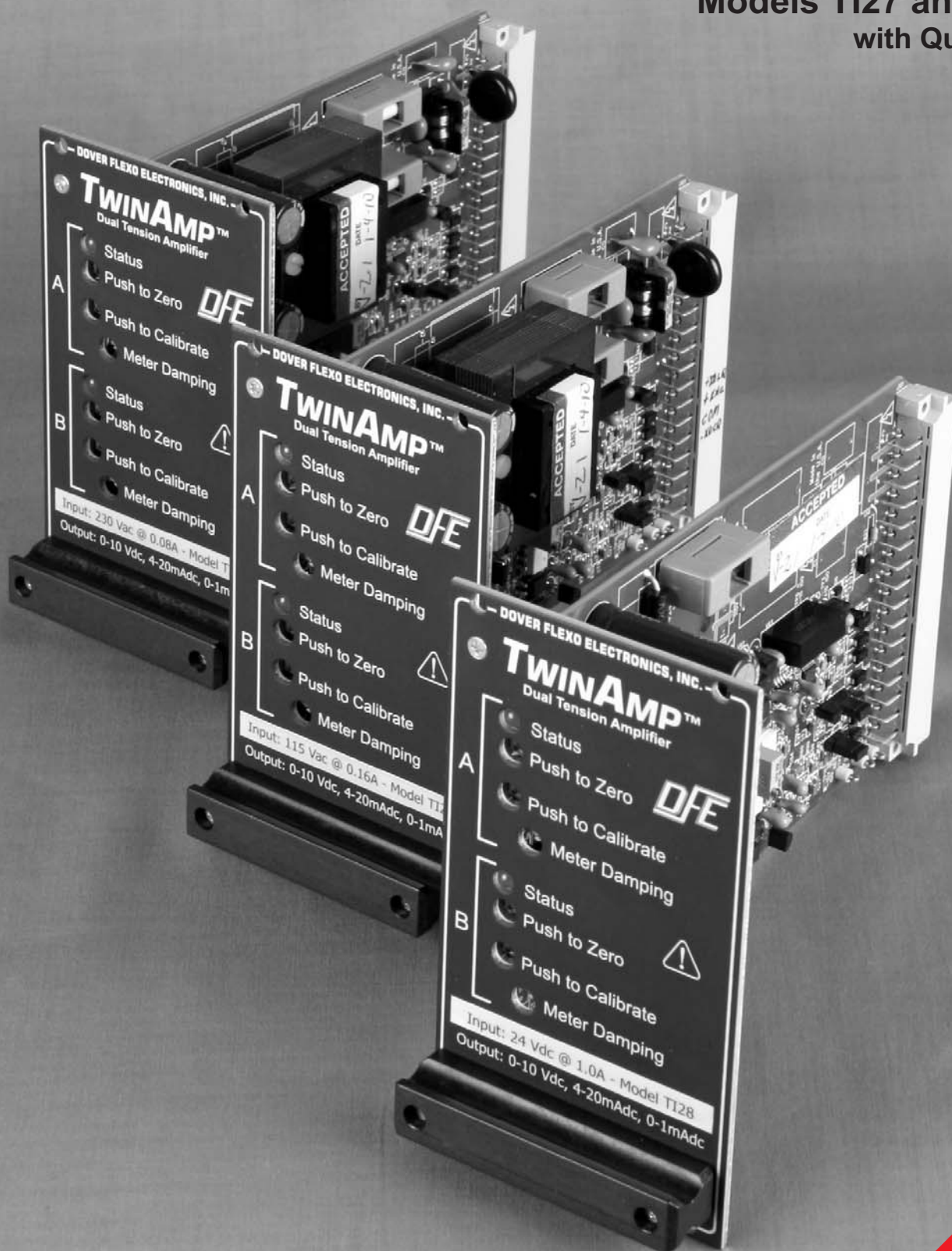


TWINAMP™

TENSION AMPLIFIER

Models TI27 and TI28
with Quik-Cal™



5 YEAR WARRANTY

TwinAmp™ Rack Mount Dual Tension Amplifier

MODELS Ti27 AND Ti28

The TwinAmp™ Tension Amplifier is a versatile, dual-channel, rack-mount tension transducer interface for monitoring tension in any two tension-sensing zones simultaneously. Two independent and isolated tension amplifier circuits are included on one card, saving you space and money.

Each amplifier of the TwinAmp powers a pair of tension transducers installed in the web path, and supplies an output proportional to tension. Standard tension outputs include 0-to-10 Vdc isolated and 4-to-20 mA dc isolated for use with a drive, controller or PLC. Also, a 0-1 mA signal is available for displaying tension on an analog or digital meter for reference by the machine operator.

The base card for the TwinAmp is an IEC/ANSI/IEEE type 2 plug-in circuit card (100mm x 160mm) for installation in a standard size 3U, 19-inch rack. The device includes a front panel with a pull handle for easy removal.

BENEFITS

- **TwinAmp™ improves machine operation and productivity** by making it easier to run proper tension, gain a higher level of process control and reductions of waste, web breaks, and other web problems.
- **Savings.** Two rack-mountable tension amplifiers on one card save space, installation time, and money.
- **Simple to setup,** adjust and calibrate with *Quik-Cal™* technology.
- **Unparalleled Output Stability.** Drift-free performance even over wide temperature swings. Zero channel cross talk.
- **Backwards compatible.** Packaging matches dimensional footprint of the Ti11 Dual Tension Indicator design. Allows easy replacement if necessary.

OPTIONS

- **230 Volt Input (230).** 230Volt 50Hz Ac power input (Ti27 only), factory set.

Except for 230VAC option, all other options can apply to either or both amplifiers in a unit. See Note 3 of product code.

- **25% Calibration Weight (25CW).** Used when 25% of full-scale calibration weight is preferred to the standard 10% calibration weight. Jumper selectable.
- **0-100µA (100M)** tension meter output.
- **Auto Zero (AZ).** Unit will automatically zero the output on each power up. Jumper selected on or off.
- **Extended Range (XRE).** Extends the tension sensing range of XR-equipped transducers to effectively increase the transducer sensitivity for very low web tensions. Transducers must also have the XR option.

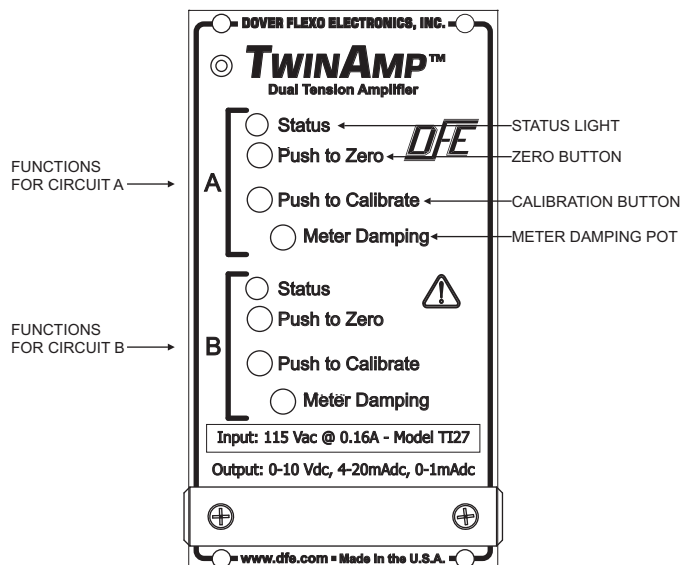
Each amplifier circuit includes its own ZERO and CALIBRATION *Quik-Cal™* push buttons, a meter damping adjustment, and LED status lights. The *Quik-Cal* feature makes calibrating the device output simple and fast; while the digital circuitry ensures drift-free output. The TwinAmp's cost is significantly lower than the purchase of two individual tension amplifiers with comparable features.

The only difference between the Ti27 and the Ti28 TwinAmp versions is their power input requirements. The Ti27 operates on 115Vac 60Hz (230Vac 50Hz optional) and the Ti28 operates on 24Vdc.

FEATURES

- **115 Vac 50/60 Hz** power input (Ti27) or **24 Vdc** (Ti28)
- **Isolated Outputs.** 0-to-10 Vdc and 4-to-20 mA outputs proportional to tension. Integrated isolation from chassis and transducer ground.
- **Tension Meter Output.** Separate 0-to-1 mA signal output for a tension meter.
- **Meter Damping.** Adjustment minimizes fluctuation of the optional analog tension meter needle.
- **Quik-Cal™** push-button zero and calibration eliminates pot adjustments to make calibrating simple and fast. 50:1 calibration range.
- **10% Calibration Weight Ratio.** I.E.: a 15 lb Calibration weight allows full meter-scale output at 150 lbs tension.

FRONT PANEL



ACCESSORIES

- **Analog Tension Meter.** 1mA, 49 ohm movement, 3.5 “ (DFE# 722-1385). Must be remotely installed. Separate meter required for each circuit. This meter also available in an enclosure (DFE#723-2682).
- **Digital Tension Meter.** 4 unit display LED without enclosure (DFE#723-2307), or meter in enclosure (DFE#723-2660).
- **Plug-in Adapter.** TwinAmp can be plugged into this adapter instead of rack for hard wiring, or for mounting in your own enclosure. (DFE#143-0000).

SPECIFICATIONS

Power Input:

Ti27:

Voltage: 120Vac 60 Hz $\pm 10\%$ (230 Vac 50 Hz optional)

Current: 120 Vac, 60 Hz = 0.105 Amp AC, typical
240 Vac, 50 Hz = 0.054 Amp AC, typical

Ti28:

Voltage: 24 Vdc $\pm 10\%$. Current: 0.10 Amp DC

Tension Output (per channel):

0 to 10 Vdc @ 5 mA, AND 4 to 20 mA, isolated
0 to 1mA damped, for optional tension meter, isolated

Transducer Voltage Supply (per channel):

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

Transducer Input Signal (per channel):

500 mVdc at rated load per pair (1.00 Vdc for XRE)

Zero Range: Minimum 95% of transducer rating

Calibration Range: Minimum 50:1

Ambient Temperature Range:

32° F to 104° F (0° C to 40° C)

Weight:

Ti27 = 1.25 lbs (0.57 kg), Ti28 = 1.0 lb. (0.46 kg)

Standard Scales for Optional Remote Tension Meter:

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

PRODUCT CODE

You may order by description or by specifying a code as in the example below by matching each labeled position with your choice. **Example: Ti27-100M, B25CW, XRE, 230.** Add accessories with part numbers as additional product line items.

Ti27 - OPTIONS (separated by commas) or 28

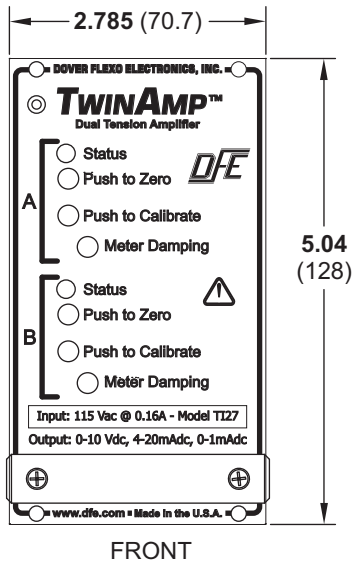
OPTIONS
100M - 0-100 μ A Meter Output ³
230 - 230V Power Input ¹
25CW - 25% Calibration Weight ³
AZ - Auto Zero ³
XRE - Extended Range ^{2,3}
Z - Special (SPR)

NOTES:

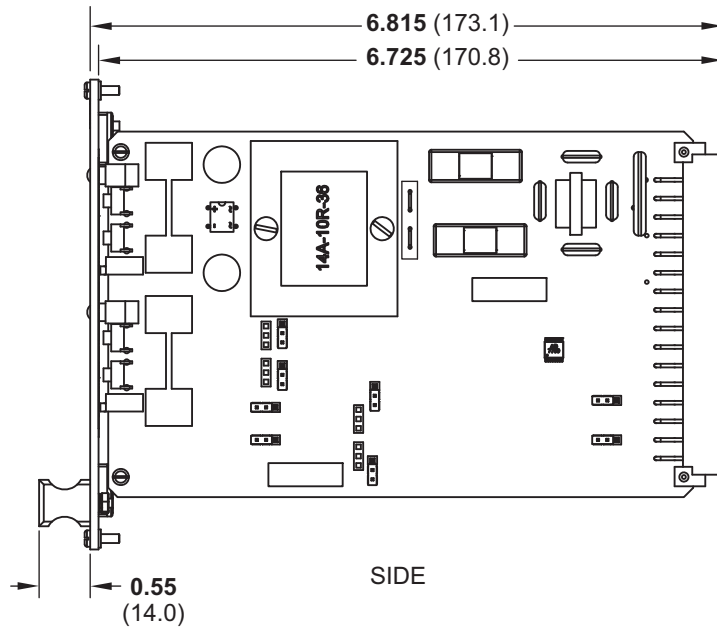
1. Both amplifiers must have the same power voltage input (Ti27 only).
2. XRE option requires that transducers have XR option.
3. Must specify to which indicator (A or B) an option applies.
If no indicator is selected, option will apply to both amplifiers.

DIMENSIONS

inches (mm)



FRONT



SIDE

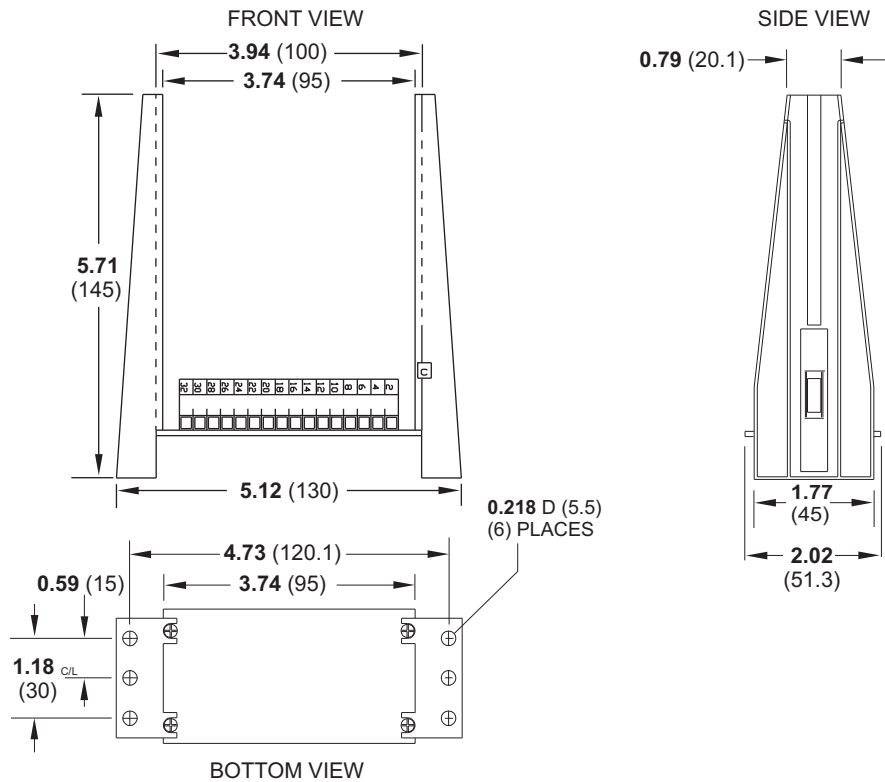
Model Ti27 shown.
Dimensions are the same
for Model Ti28



BOTTOM

OPTIONAL PLUG-IN ADAPTER

inches (mm)



BOTTOM VIEW

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