



iAMP2™ INLINE TENSION AMPLIFIER



The iAMP2™ digital signal amplifier scales millivolt-level transducer (load cell) output to 0-10 VDC and 0-1 mA signals proportional to tension. The scaled output signals can interface with a drive, PLC, data logger or display meter.

The iAMP2™ module is a simple alternative to mounting larger, less flexible electronics devices on a press or machine frame for tension monitoring. Easy to conceal, the iAMP2™ is an ideal tension amplifier for OEMs and system integrators.

The iAMP2™ connects in one of two ways to the transducer(s) and to your PLC, drive or other control device. Connections from tension transducers to the iAMP2™ can be made directly via cables with mil-spec industrial connectors ('C' wiring configuration) or with flying leads ('T' wiring configuration).

With the Quik-Cal™ feature, recessed push buttons on the module face are used instead of potentiometers for zero and calibration settings. This saves valuable setup time since no tension display is needed, no screwdriver is needed and no second person is needed to assist. The Zero and Cal settings are stored digitally, preventing signal inaccuracies synonymous with aging or worn out cal pots.

FEATURES & BENEFITS

- 0-1 mA meter output proportional to tension.
- 0-10 VDC tension signal output.
- Quik-Cal™ push-button zero and calibration.
- Backward-compatible with all DFE transducers.
- Small package is easy to conceal, providing more flexibility with mounting locations.
- Inline form factor can be stowed in cable tray or mounted to a DIN-rail.
- Optional DIN-rail mounting clip.
- Exceptional output stability.
- 50:1 Calibration Range.
- 10% or 25% Calibration Weight Ratio.
- Extended Range option for increased sensitivity at lower tension levels.
- Green LED indicates status of calibration, zero and power.
- Short Circuit Protection - Unit automatically protects transducer excitation and tension output from short circuits or excessive loading.
- Self Resetting Fuse - unit protects itself and connected equipment from more serious faults or fire hazard. Integrated fusing automatically resets from tripped when unit is powered down.
- Protected against damage from static electricity.

SPECIFICATIONS

Power Input: Voltage = 24 VDC +/- 10%

Current = 0.1 ADC typical, 0.3 ADC internal fusing

Outputs: 0-10 VDC tension signal output (isolated), 5 mA max., 0-1 mA tension meter output

Ambient Temperature Range: 32°F to 113°F
(0°C to 45°C)

Enclosure: Steel

Weight: 0.6 lbs (0.27 kg)

Accuracy: Max error of 1% over temperature range, 0.1% typical

Zero (Tare) Range: Minimum 95% of transducer rating

Calibration Range: Minimum 50:1

ORDERING INFORMATION

You may order from the list of two configurations below. Please refer to Configuration Selection on the following page to choose the right configuration for your transducer. *EXAMPLES: TI22-C, TI22-T-DRC*

TI22 - X - OPTIONS

ELECTRICAL CONNECTIONS	OPTIONS
C = Cable Connector T = Terminal Strip	25CW = 25% Calibration Ratio DRC = Din Rail Clip XRE = Extended Range

OPTIONS

25% Calibration Ratio (25CW) - Calibration weight ratio of 25%.

DIN-Rail Mounting Clip (DRC) - Fits 35mm DIN rail. Available on both cable and terminal block versions.

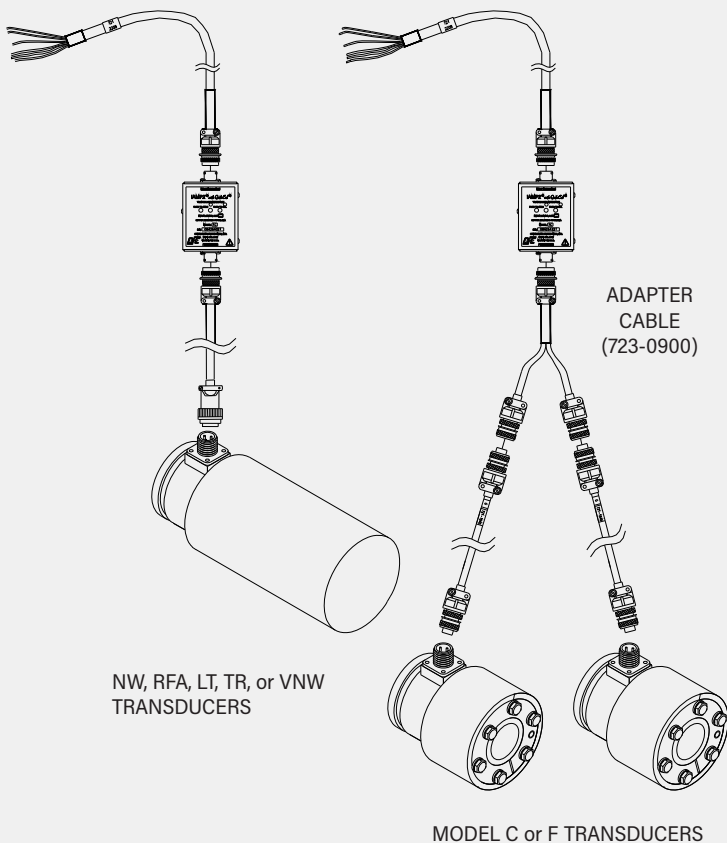
Extended Range (XRE) - Extends the tension sensing range of XR equipped transducers to effectively increase the transducer sensitivity for very low web tensions. This option must be used with LT transducers.

CONFIGURATION SELECTION

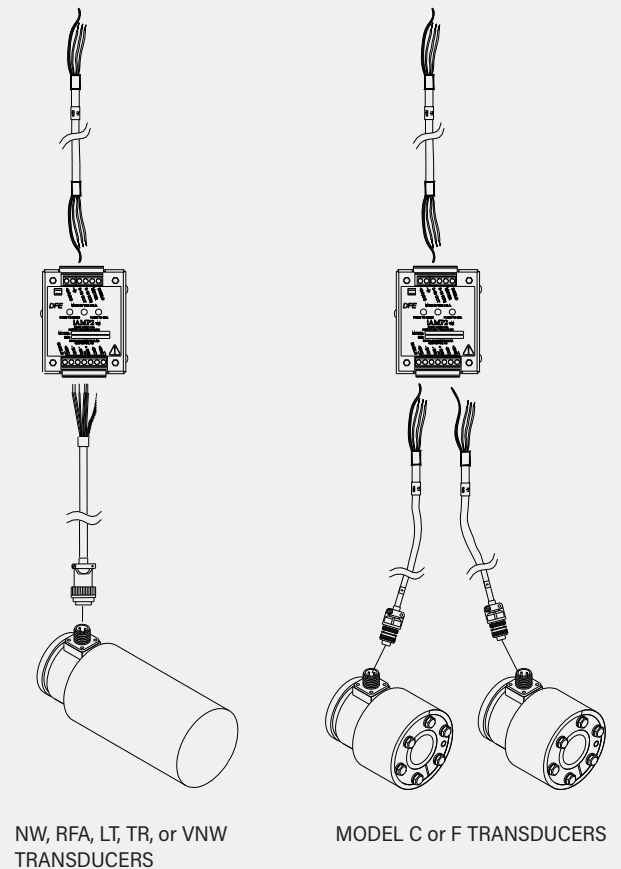
As shown below and in the *Ordering Information* section, you may choose mil-spec industrial cable connectors (C) or terminal blocks (T). The iAMP2™ is an upgraded version of the original iAMP™ amplifier. See the table below for replacement configuration options.

ORIGINAL iAMP™	SUPERSEDED iAMP2™
F2C	TI22-C with 723-0900 adapter cable.
F1C	TI22-C
F1L	TI22-C with interconnection cable 721-1841 (specify length)

VERSION C CABLE CONFIGURATIONS



VERSION T CABLE CONFIGURATIONS



ACCESSORIES

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# 723-2682. Available meter scales: 0-1, 5, 10, 25, 50, 100, 150, 250, 500 and 1000.

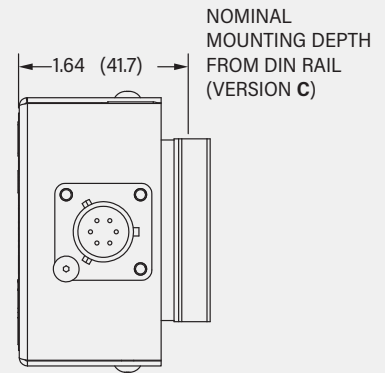
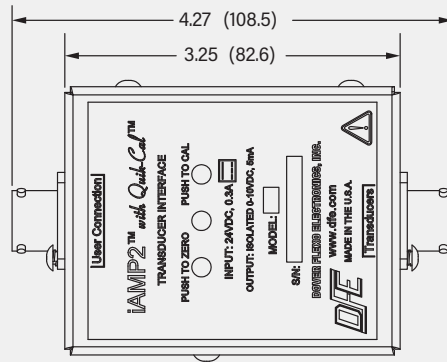
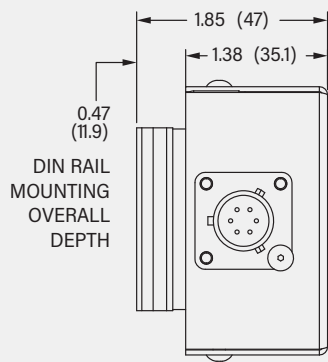
Nonstandard Meter Scale - Any meter scale not shown above.

Transducer Cables - Your DFE Applications Engineer will help select the proper cables for your iAMP2™ and transducer combination. See example configurations to the right.

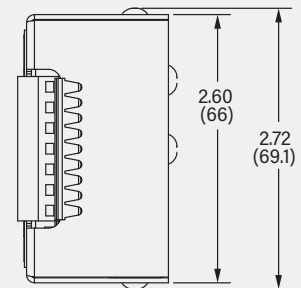
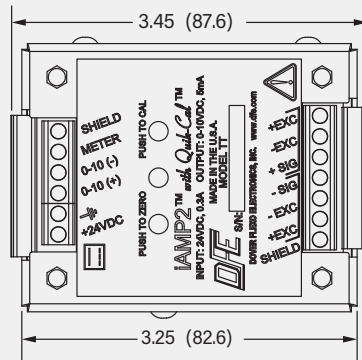
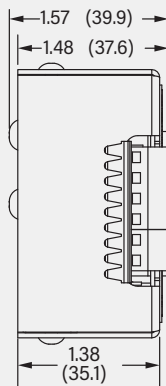
Adapter Y-Cable - DFE Part# 723-0900, 12" long. Used to connect with two transducers with 3-pin connectors such as the Model C or Model F.

DIMENSIONS

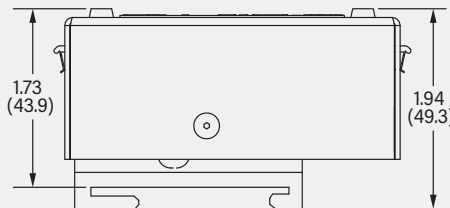
VERSION C (shown with DIN Rail Clip option)



VERSION T



NOMINAL MOUNTING DEPTH FROM DIN RAIL (VERSION T)



SCREW MOUNT DIMENSIONS (VERSIONS C & T)

