

TI-21 Manual

I. Product Description

1.1 General Description

The TI-21 is a small digital indicator designed for incorporation into an industrial control panel, or for surface mounting. An LCD character display is used to prompt for calibration, and for tension readout during operation.

1.3 Exploded view of product

1.4 Specifications

Power Input	.....	115 Volts 60/50Hz single phase @ 1/4 Amp
	.....	230 Volts 60/50Hz single phase @ 1/8 Amp
Tension Signal Outputs	.....	0 to 1mA output (for meter)
	.....	0 to +10 Volts DC @2mA
	.....	0 to +10V Isolated (Option)
	.....	4-20mA Isolated (Option)
Weight	.....	6.6 lbs. (3 KG)
Transducer Signal In	.....	500 mV dc at rated load (per pair)
Transducer Excitation	.....	5 Volts dc (10 Volts dc with XR option)
Zero (Tare) Range	.....	95% of transducer rating, minimum
Calibration Range	.....	25:1
Temperature Range	.....	32 to 104 deg.F (0-40 deg.C)
System Accuracy	.....	1 - 3% typical
Tension Meter	.....	Analog, 2%, 1mA, 48 ohm (Option)
Standard Tension Ranges	.....	0 - 1,5,10,25,50,75,100,150,200, 250,300, 500,1000, 1500, 2000, 2500, 3000

1.5 Standard features

- Pushbutton calibration (no potentiometers required)
- Preset full scale ranges
- 2-line, 16-character/line backlit display for calibration and tension readout
- 3-key membrane keypad/overlay for calibration
- Auto-rezero after powerup
- Easy pushbutton rezero at any time
- 3-position terminal block for AC power
- 10-position terminal block for transducer and output signals
- 0-10V tension signal output
- 0-1mA tension meter output
- Small package size allows for maximum mounting flexibility in tight spaces
- One version for all DFE transducers

1.6 Options

- 230 Volt Power (230)
- Extended range (XRE) excitation
- DIN rail mounting clip
- Isolated 0-10V (I10) or 4-20mA(I420) output

II. Installation

2.1 Dimensions

2.2 Selection of a mounting location

The TI-21 is designed to be mounted within an enclosed control cabinet. Select a location that will be convenient for viewing the display (if desired). Be sure the location is free of vibration, and is dry and clean.

Use external fusing and disconnect switch

2.3 Installation instructions (including safety notes)

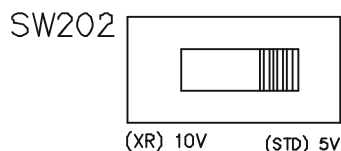
Keyhole

Flange

DIN clip

2.4 POWER VOLTAGE

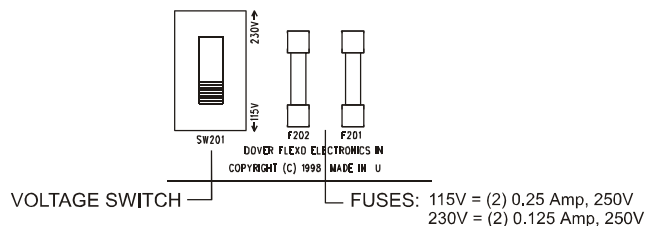
The WebHandler™ controller is designed to operate on either 115v-60Hz or 230v-50/60Hz power. Confirm that the correct voltage for your application has been selected. The AC voltage select switch is located on the power board. Slide switch to select 115 volts or 230 volts. Also verify that the correct fuses are used for the voltage you have selected. See figure below. **CAUTION! The wrong selection will damage the controller!**



(Jumpers instead)

2.5 TRANSDUCER EXCITATION

Confirm that the correct transducer excitation has been selected. 5 Volts is standard, 10 Volts provides a wider operating range. The transducer excitation select switch is located on the power board. **CAUTION - The transducers MUST have the XR option if you select 10 Volts! Otherwise damage will result!**



2.4 Electrical Connections

ti21man.wpd

Panel mount with ½" flanges top and bottom
Panel mount with keyhole slots in rear panel

Optional DIN clip for rail mount

2.6 STANDARD ELECTRICAL CONNECTIONS

Refer to the drawing below for electrical connections. If your controller has any optional equipment, refer to Section 3 of this manual for the appropriate connections.

Power

Transducer

2.X OPTIONAL ELECTRICAL CONNECTIONS

0-10V output

0-1mA meter output

III. Calibration and Setup

Only six screens are required for calibration. To calibrate,

a) the user presses the ↑ and ↓ keys simultaneously. This brings up the zero screen. The user presses OK to zero.

b) This brings up the Tension Units screen. The user selects tension units using the ↑ or ↓ keys, then presses OK.

c) This brings up the range-select screen. The user chooses one of a number of preset range values using the ↑ or ↓ key. When done, the user presses OK.

d) This brings up the Set Calibration Weight screen. The user sets their calibration weight using the ↑ and ↓ keys and presses OK.

e) This brings up the Calibration screen. The user applies the calibration weight and presses the OK key.

f) This brings up the rezero screen. The user removes roll weight and presses the OK key.

This puts the indicator into operation, and tension is displayed on the top display line, while the unit of measure is displayed on the bottom line.

Set Zero

Select tension measurement units. Your choices are Pounds, Ounces, Grams

ti21man.wpd

Kilograms
Newtons

Set your full scale range

of 1, 5, 10, 25, 50, 75, 100, 150, 200, 250, 300, 500, 1000, 1500, 2000, 2500, 3000 and nonstandard

Set your calibration weight

Apply Cal weight and Press OK

Remove Transducer weight and rezero

IV. Operating Instructions

4.1 Overview/quickstart

The indicator incorporates a menu choice for reset which allows the display, the 0-10V and the 0-1 mA outputs to be easily rezeroed

Press ↑↓

↑↓

Also, the indicator incorporates an auto rezero feature, which rezeroes the controller 5 seconds after a powerup.

V. Care and Maintenance

VI. Troubleshooting Guide

VIII. Replacement parts

A. Appendix

