# **Temperature Controllers**



#### **TEC Accessories**

# DIN Rail/Surface Mount Adapter for 1/16 DIN Controls





Cutout for Control – 45 mm/1.772" square

Maximum DIN Control Depth – 120 mm/4.72"

Material – Fire Retardant Polycarbonate GE Lexan® 940

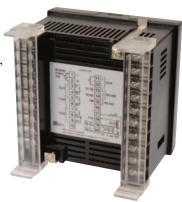
Part Number: TEC99920

# **Polycarbonate Touchsafe Terminal Covers**



**1/8 and 1/4 DIN –** Fits Controller Models: TEC-8100, TEC-8300, TEC-805, TEC-4100, TEC-4300, TEC-401, TEC-402, TEC-404, TEC-405, TEC-4500

Part Number: TEC99921 (sold per piece)

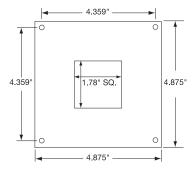


Part Number: TEC99922 (sold per piece) 1/16 DIN – Fits Controller Models: TEC-9090, TEC-910, TEC-920, TEC-901, TEC-902, TEC-905

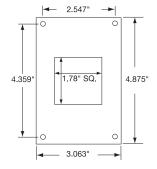
## **Adapter Plates**



18 gauge Stainless Steel Adapter Plates with (4) #8 self-tapping sheet metal screws for mounting



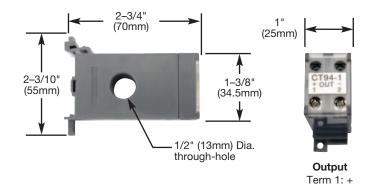
**TEC99901**Adapts a 1/4 DIN cut-out to a 1/16 DIN cut-out.



**TEC99902**Adapts a 1/8 DIN cut-out to a 1/16 DIN cut-out.

#### Model TEC 99999 Current Transformer/Transducer for use with Heater Break Alarm

Term 2: -



# **Design Features**

- \* High Accuracy: ± 2% of Reading ± 0.2A
- \* Wide Measuring Range: 0 50 Amps AC
- \* DC Voltage Output: 0 5 VDC
- \* 35 mm DIN Rail Mount or Surface Mount
- \* 7/16" (12.5mm) diameter maximum cable size

#### Note:

1 required for 1 Phase — 50A Max.

3 required for 3 Phase — 100A Nominal Max.

# **Temperature Controllers**

## **TEC Accessories**



#### **Data Communication Accessories**

**TEC99001** — Smart Network Adapter for third party SCADA software which converts 255 channels of RS-485 or RS-422 to RS-232 Network.

**TEC99003** — Smart Network Adapter for connecting the TEC controller's programming port to the RS-232 PC serial port. Allows downloading and reading of configuration information directly from a personal computer.

Can be used with TEC-220, TEC-410, TEC-910, TEC-920, TEC-2500, TEC-4100, TEC-4300, TEC-4500, TEC-7100, TEC-8100, TEC-8300, TEC-9100, TEC-9300, TEC-9500 and TBC-41.

**TEC99030** — "Tempco Config Set" PC software for use with TEC99003 Smart Network Adapter

#### **Minimum Requirements**

System: IBM PC compatible computer with Intel Pentium IV or

above

Operating System: Microsoft Windows XP or above

Memory: 256 MB

**Hard Disk:** 50 GB Free Space on the hard disk **Communication Ports:** RS232, RS485 or USB Port

Note: Can be downloaded at no charge from www.tempco.com

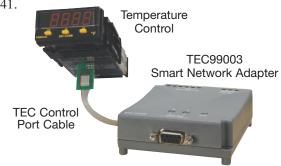
## **Programming Port Cables**

**TEC99011** — Used for models TEC-220, TEC-4100, TEC-7100, TEC-8100 and TEC-9100.

**TEC99012** — Used for model TEC-920 only.

**TEC99013** — Used for models TEC-2500, TEC-4300, TEC-8300 and TEC-9300.

**TEC99014** — RS-232 interface cable for models TEC-220, TEC-410, TEC-2500, TEC-4100, TEC-4300, TEC-4500, TEC-8100, TEC-8300, TEC-9100, TEC-9300, TEC-9500 and TBC-41.



Part Number TEC99927 — Converter Connects RS232/RS422/RS485 Devices To PC Via USB Port

Part Number TEC99928 — Converter Connects RS422/RS485 Devices To PC Via USB Port



Part Number TEC99927

#### **Design Features**

- \* Ideal for interfacing with TEC controllers, PPR chart recorders, PLCs, and general protocol conversion to a USB port
- st Full-Speed USB operation at up to 12 Mbps
- \* Additional I/O or IRQ not required
- \* Serial transmission speed up to 921.6 Kbps
- \* 64-byte FIFO and built-in hardware and software flow control
- \* Built-in 15 KV ESD protection
- \* Support for RS-232, RS-422, 2-wire RS-485, and 4-wire RS-485
- \* Terminal block adapter



Part Number TEC99928

#### **Specifications TEC99927**

# **USB**

Version: 900/1800 MHz, dual band

Connector: USB type B Speed: 12 Mbps Serial Interface

Number of Ports: 1

**RS-232**: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

**RS-422**: T×D+(B), T×D-(A), R×D+(B), R×D-(A),GND **RS-485**: 4-wire: T×D+(B), T×D-(A), R×D+(B), R×D-(A), GND

2-wire: Data+(B), Data-(A), GND

**Connector**: Male DB9 **FIFO**: 64 bytes

Serial Line Protection: 15 KV ESD for all signals

#### **Serial Communications Parameters**

Parity: None, Even, Odd, Space, Mark

**Data Bits**: 5, 6, 7, 8 **Stop Bits**: 1, 1.5, 2

Flow Control: RTS/CTS, XON/XOFF

Speed: 50 bps to 921.6 Kbps

#### **Power Requirements**

Power Consumption: 30 mA@5 VDC

Mechanical

**Dimensions**:  $37.5 \times 20.5 \times 60 \text{ mm} (L \times W \times H)$ 

#### **Specifications TEC99928**

Chipset: Silicon Laboratories CP2102

**Compliant:** USB 1.0, 1.1, 2.0 **Connector:** USB type A

Baud Rates: Full Speed 12 Mbps

# Temperature Controllers

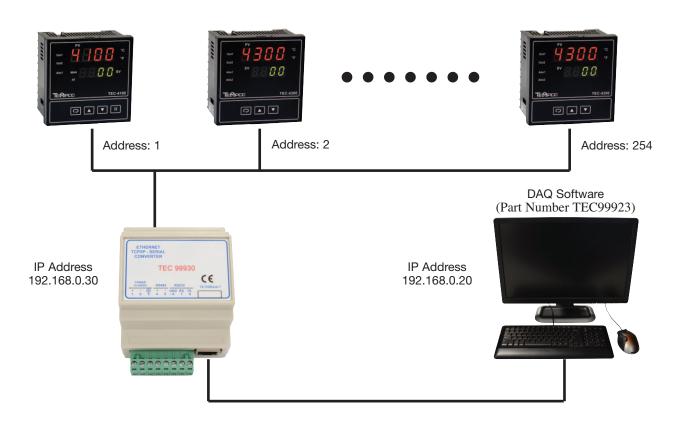


**TEC Accessories** 

#### RS232/485 To Ethernet Converter

Tempco Ethernet converter / Gateway is capable of linking any serial (RS-232 or RS485) devices to your computer network via Ethernet for remote access, control, and/or monitoring purposes. Works with Tempco electronics (controllers, data loggers, etc.) using our Data Acquisition Software (Part Number TEC99923).

#### Part Number TEC99930



#### **Design Features**

- \* Serial to Ethernet communication
- \* DIN Rail/Panel Mount
- \* COM1: RS232/RS485, RJ45 for Ethernet connectivity
- \* Application: Connects IO modules, controllers, and HMIs to an Ethernet Network
- \* Function: Transparent data link or Gateway to convert Modbus RTU to Modbus TCP messages
- \* Supports Multiple sockets and enables up to 4 Masters to communicate with slaves connected to PC-E converter
- \* Web server for Configuration

## **Specifications**

Power Supply: 90mA @ 10VDC / 40mA @ 26VDC

Ethernet: 10/100 Mbits, Connector RJ45

**Maximum Ambient Temperature:** 257°F/ 125°C

**Serial:** RS232, 3 Wire, TX, RX & GND RS485, 2 Wire Multi drop twisted pair

Baud Rate 2400, 4800, 9600, 19200, 38400, 57600, 115200

Communication Settings Data Bits: 5, 6, 7, 8 Parity None, Even, Odd

Parity None, Even, Oc Stop Bits 1, 2

**Operating Temperature:** -10°C to + 50°C **Storage Temperature:** -40°C to + 85°C

Connectors: Power and Communication: 8 way screw connector

**Protection Class: IP20** 

**Humidity:** Up to 95% non-condensing