

# PRODUCT PROFILE

## Thermistor Monitors

### Machine Alert Bulletin Number 817

#### Protective Functions

- Overtemperature

#### Advantages

- Microprocessor technology provides highly accurate and repeatable protection
- No adjustments required
- Wide supply voltage rating (24... 240V AC/DC) covers a broad range of applications
- Compact 22.5 mm Euronorm housings
- Global application with CE, CSA and UL approval
- Connection of up-to six PTC thermistors in series
- Type E2 offers unlimited storage of status in event of power failure
- Open and short circuit detection
- Short circuit protected signal input

#### Typical Applications

- VFD-Controlled Motors
- Transformers
- Bearings
- Heating Systems



#### Overview

The new MachineAlert family of dedicated function electronic motor protection relays offers state-of-the-art supplementary protective functions that are easily added and applied to motor control circuits. A full range of products exists to allow selective addition of motor protective enhancing functions to meet specific application requirements. The MachineAlert relays are an economical choice for protecting equipment investments and minimizing production downtime.

## PRODUCT SELECTION

Feature	Cat. No. 817-E1	Cat. No. 817-E2
Automatic Reset	X	X
Manual Reset	–	X
Remote Reset	–	X
Power On Indication	X	X
Trip Indication	X	X
Trip Identification	X	X
Test Button	–	X

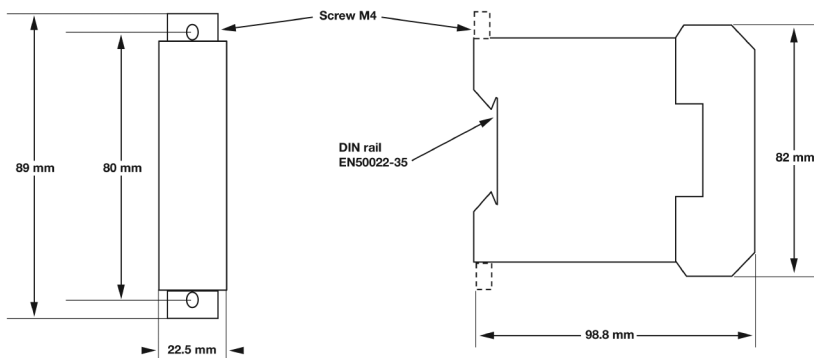
## RELAY CONFIGURATION

	817-E1 1 Relay 1a 1b		817-E2 2 Relays each 1a	
	21/22	13/14	21/22	13/14
Power On	Y	Y	Y	Y
Tripped	Y	Y	Y	Y
Power Off	Y	Y	Y	Y

## POWER/TRIP IDENTIFICATION

Power On	Green
Trip Temperature	Red
Trip Open Circuit (Sensor Wiring)	Red 2 Hz
Trip Short Circuit (Sensor Wiring)	Red Flashing

## DIMENSIONAL DIAGRAMS



## ELECTRICAL

Supply	
Rated Supply Voltage (Us)	24 ... 240V AC/DC
Operating Range	AC: 0.8 ... 1.1 Us DC: 0.9 ... 1.1 Us
Maximum Power Consumption	1.5 VA

Output Relay	
Type of Contacts	Type E1: (2) Form A, one relay Type E2: (2) Form A, independent relays
Rated Thermal Current	4 A
Rated Insulation Voltage	250V AC
Rated Operating Voltage	250V AC
Utilization Category	AC15/DC13

PTC Sensor Circuit	
Type of Control Unit	Mark A
PTC Sensor Characteristic	IEC 34-11-2
Max. Number of Sensors	6
Max. Cold Resistance of Sensor Chain	1500 ohm
Trip Resistance	3600 ohm (+/- 300 ohm):
Reset Resistance	1580 ohm (+/- 60 ohm):
Short Circuit Trip Resistance	<20 ohm (-5 ohm, +0 ohm):
Short Circuit Reset Resistance	24 ohm (-0 ohm, +6 ohm):
Open Circuit Trip Resistance	>20,000 ohm:

Measuring Line				
Minimum Cross Section (mm <sup>2</sup> )	0.5	0.75	1	1.5
Maximum Length (m)	200	300	400	600
200 ... 600m: twisted pair, shielded shield connection at r1				

Remote Reset	
Maximum Line Length	200 ... 600m: twisted pair, shielded shield connection at r1

## MECHANICAL

Environmental	
Ambient Temperature	-40C ... +80C; (storage) -25C ... +60C; (operating)
Humidity	5 ... 95% noncondensing
Maximum Altitude	2000 m
Pollution Environment	Pollution Degree 2
Degree of Protection	IP 20

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