Thermocable Flexible Elements Ltd
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PROREACT ANALOGUE LINEAR HEAT DETECTION CABLE

Thermocable ProReact Analogue Linear Heat Detection Cable provides an easy installation method for sensing changes in temperature. The analogue technology offers separate Pre-Alarm and Alarm outputs in order to maximise functionality, coupled with open and short circuit detection and discrimination. Ambient temperature compensation maintains alarm temperature accuracy. The technology offers alternative over heat protection in a vast range of applications and industries, from power generation to oil and gas industries.

Using a zone or switch monitor, the analogue linear heat detection system can easily be interfaced to an addressable loop or can be directly connected to a zone of any conventional fire panel.

The analogue technology comprises of a four core sensing cable and a separate interface unit. This unit monitors the resistance of temperature sensitive polymers within the sensor cable. An abnormal change in resistance along the analogue detection cable triggers either a Pre-Alarm or Alarm on the interface unit. Three resistors connected to the corresponding outputs of the analogue heat controller provide pre-alarm/alarm and fault indication (see wiring diagram).

FEATURES

- Full UL 521 Approved
- CE Marked
- Temperature range 54°C (129°F) – 105°C (221°F)
- Extensive coverage of up to 500 metres (1640ft) continuous length
- Self programmable interface (no nomogram interpretation)
- Separate Pre-Alarm and Alarm outputs
- Alarm triggered if interface internal temperature exceeds 100°C (212°F)
- Optional Nylon extrusion offering UV protection and increased durability for outdoor use
- Optional stainless steel over-braiding for increased mechanical protection

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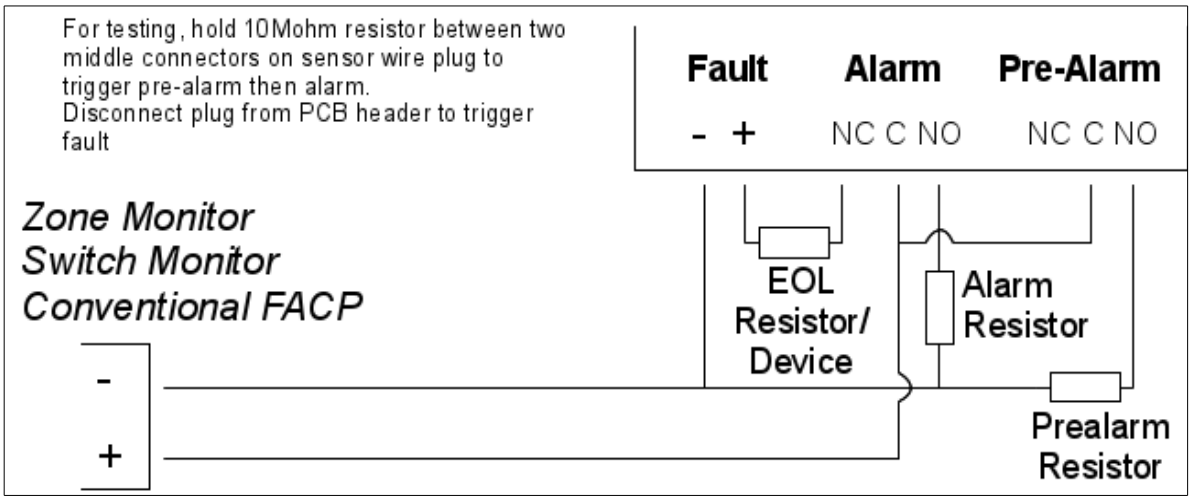
SCHEMATIC



TECHNICAL SPECIFICATION

Electrical Specifications	
Operating Voltage Range	20Vdc – 28Vdc
Current Consumption	
...normal & fault conditions	<70mA (Base PCB only < 50mA)
...pre-alarm OR alarm conditions	<80mA
...pre-alarm & alarm conditions	<100mA
Relay outputs	Alarm & Pre-alarm FORM C 2A @ 30Vdc load rating - resistive 0.25A @ 250Vac (62.5VA) load rating - resistive
Fault output	Opto-isolated phototransistor output Max 50V @ 20mA
Remote Reset	Isolated input for resetting module remotely (20-28Vdc pulse for >5s)

Environmental Specifications	
Min/Max Operating ambient temperature	
...Controller	0°C – +50°C
....Sensor Cable (recoverable)	-40°C – +125°C
Continuous operating temperature range	
...Sensor Cable	-40°C – +90°C

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Environmental Specifications (cont.)	
Humidity	
...Controller	0% - 95% RH (Max. 75% RH for <75m cable and 54°C alarm setpoint)
...Sensor cable	0% - 99% RH

Mechanical Specifications	
Material	
...Controller	Polycarbonate
...Sensor Cable	Overall insulated quad core twisted & foil shielded
Colour	(additional nylon coating is always black) (additional polypropylene coating is transparent)
...Controller	Light Grey
...Sensor Cable	Red
Maximum Zone Length	500m (1640ft)
Minimum Zone Length	30.5m (100ft)
Dimensions (Controller)	W182mm x H180mm x D90mm (W 7 1/8” x H7 1/8” x D3 1/2”)
Enclosure Rating	IP65 (IK08) polycarbonate with removable cover
Weight	
Controller	804g
Sensor Cable	
PVC coating	23.7g per m
...with additional Polypropylene coating	30.4g per m
...with additional Nylon coating	31.9g per m
...with additional Stainless Steel Braid	33.0g per m
Sensor Cable Diameter	
PVC coating	4.57mm +/- 0.075mm (0.180” +/- 0.003”)
...with additional Polypropylene coating	5.50mm +/- 0.075mm (0.217” +/- 0.003”)
...with additional Nylon coating	5.50mm +/- 0.075mm (0.217” +/- 0.003”)
...with additional Stainless Steel Braid	5.10mm +/- 0.075mm (0.200” +/- 0.003”)