PERTRONIC INDUSTRIES LTD

DATASHEET

Pertronic-Anbesec Linear Heat Detection Cable

LHDCATIC-68C-200, LHDCATIC-88C-200, LHDSIC-68C-200, LHDSIC-88C-200 LHDSIC-68C-500, LHDSIC-88C-500

Overview

Pertronic-Anbesec linear heat detection (LHD) cable is a heat sensing device with a fixed temperature alarm threshold.

The cable consists of two twisted steel wires separated by heat sensitive insulation. The insulation melts at a pre-determined temperature, allowing the wires to contact each other and create a short circuit. When correctly connected to a Pertronic fire panel, the LHD cable triggers an alarm signal when the insulation melts.

Pertronic-Anbesec LHD cable may be connected to all current Pertronic fire panels including

- F1
- F4 (see note 1 page 2)
- F16e
- F100A (see note 2 page 2)
- F220 (see note 2 page 2)

LHD cable sensitivity is not affected by installation temperature or the length of cable heated by a fire.

Pertronic-Anbesec Linear Heat Detection Cable on 200 Metre Drum

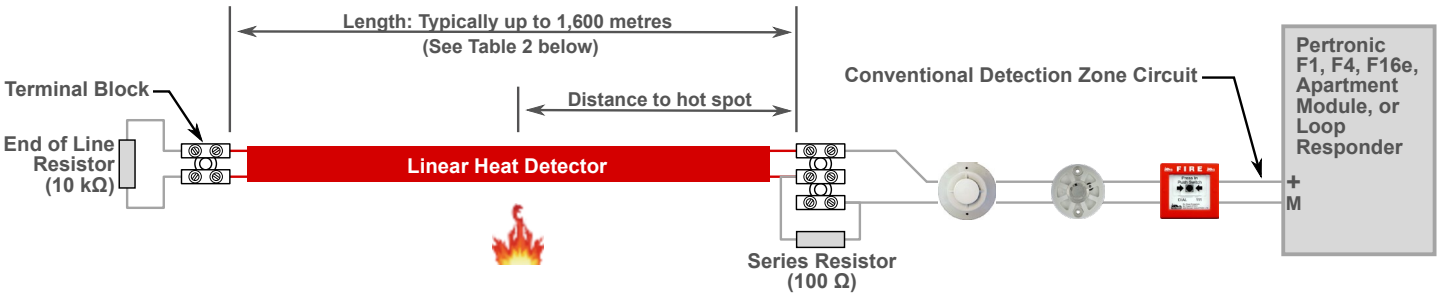
Features

- » Available with integral catenary wire
- » Compatible with Pertronic conventional and analogue addressable fire panels
- » Typically 1,600 metres of cable may be connected to a Pertronic conventional detection zone (see Table 2 on page 2)
- » No adjustments required
- » Supplied on 200 metre drums
- » Standard (non-catenary) LHD cable also available on 500 metre drums
- » Pertronic-Anbesec LHD cable is UL listed under “UL 521 Heat Detectors for Fire Protective Signaling Systems” (referenced in NZS 4512:2010 section 216.1)
- » FPANZ listed

Table 1: LHD Cable Specification

Manufacturer’s Code	Standard Catenary	NMS1001-68C NMS1001-68C-G	NMS1001-88C NMS1001-88C-G
Outer Jacket Colour		Blue	Red
Alarm Temperature		68 °C	88 °C
Maximum Working Temperature		45 °C	60 °C
Conductor Diameter		0.92 mm	
Conductor Resistance		640 ± 60 Ω/km (“Round-trip” with conductors connected in series) (320 ± 30 Ω/km per conductor)	
Minimum Bend Radius		150 mm	
Insulation Resistance (between cores)		1000 MΩ, 500 V	
Insulation Resistance (cores to outer)		1000 MΩ, 2 kV	
Capacitance (25 °C)		65 pF/m	
Inductance (25 °C)		7.6 µH/m	
Minimum Working Temperature		-40 °C	
Storage Temperature		Up to 45 °C	
Relative Humidity		≤ 98 % non-condensing	
Environmental Protection	Cable	IP 66	
	System	Depends on termination	

Typical Connections: Pertronic-Anbesec LHD in a Pertronic Fire Alarm System



Notes:

1: Pertronic-Anbesec LHD cable is not compatible with Pertronic 2-wire fire panels (F4FS-3 2W and F4RS-3 2W)

2: When connecting to an F100A or F220 fire panel, use a Pertronic Apartment Module (AM-3, AMH-3) or Pertronic Loop Responder (AALR-MF)

3: The feeder cable between fire panel (or module) and LHD is limited to a maximum of 10 Ω (e.g. 270 m of 1 mm ²).

4: If the LHD cable is activated by a hot spot more than 100 metres along the cable, the detection zone may trigger a smoke alarm signal. See table 2 (below).

5: All outputs triggered by the LHD cable should be configured as for heat mode operation.

6: The LHD cable must be installed at the end of the detection circuit, as shown above.

Table 2: Specification: LHD System

Pertronic Conventional Circuit NZS 4512: 2010	Distance to hot spot (metres, ± 10%)		Maximum Length
	Heat Alarm	Smoke Alarm	
F1 : FW >v2.3	0 – 100 m	over 100 m	1600 m
F4 : FW >v2.26			
F16e : all versions	0 – 180 m	over 180 m	1600 m
Loop Responder : FW >v3.00			
Apartment Module : all versions	0 – 300 m	over 300 m	2800 m

Ordering Information

Product Code		Description	FPANZ Listing
200 Metre Drum	500 Metre Drum		
LHDSIC-68C-200	LHDSIC-68C-500	Linear Heat Detection Standard Indoor PVC Sheath Cable, NMS1001-68C	PI/264
LHDSIC-88C-200	LHDSIC-88C-500	Linear Heat Detection Standard Indoor PVC Sheath Cable, NMS1001-88C	PI/265
LHDCATIC-68C-200	not available	Linear Heat Detection Catenary Indoor PVC Sheath Cable, NMS1001-68C-G	PI/262
LHDCATIC-88C-200	not available	Linear Heat Detection Catenary Indoor PVC Sheath Cable, NMS1001-88C-G	PI/263

NOTE: This information applies to NZS 4512 versions of Pertronic fire panels and modules. For information about connecting LHD cable to our export products, please visit our Australian website at https://pertronic.com.au or contact your nearest Pertronic office.