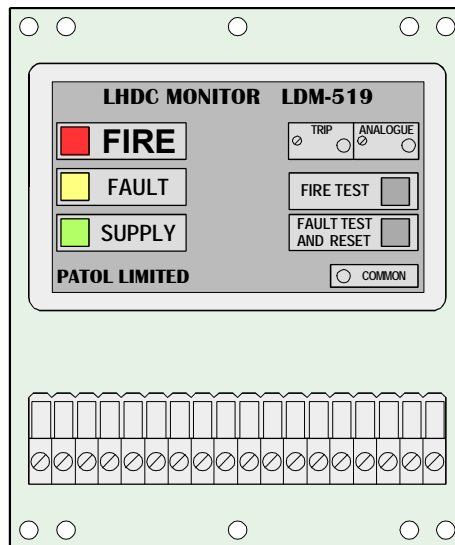


## LDM-519-LP LHDC MONITOR / CONTROLLER Line Heat Detector Interface & Fire Zone Monitor



The module is designed to monitor a length of Linear Heat Detecting Cable (LHDC) for both an elevated temperature (fire) condition, and Fault status (open circuit & short circuit).

The unit is designed such that it may be configured to operate on in a 'two wire' mode that emulates the operation of conventional smoke & hear detectors. The unit may therefore be directly interfaced with fire control panels by connection to fire zone trigger circuits.

Signalling of fire and fault status by means of volt free contacts may also be realised when a separate supply is employed.

The modular form of the unit enables it to both be provided in a variety of discrete housings and readily integrated into special control panels.

The primary features of the control units are:-

- .. **Operable from two wire fire panel Trigger Circuits.**
- .. **Analogue address loop interfactable - Line Powered.**
- .. **Adjustable alarm set point.**
- .. **Fault monitoring of LHDC for both open and short circuit conditions.**
- .. **LED indication of Fire, Fault & Supply status.**
- .. **Selectable latching / auto-reset operation.**
- .. **Test & Reset push-buttons.**
- .. **Volt free contact outputs for Fire & Fault conditions.**

# LDM-519 LHDC CONTROLLER

## Line Heat Detector Interface & Fire Zone Monitoring Unit

### Principles

The unit is operated in conjunction with a length of Line Heat Detector Cable (LHDC) and an 'end of line' (EOL) terminator. The LHDC is a coaxial cable which may be installed in considerable lengths whilst maintaining the ability for the monitoring unit to provide early warning of 'hot spots' and fire conditions on short sections of the overall zone length. Reference should be made to the (separate) data sheet on the Line Heat Detector for specification of its performance.

There are three principle modes of supply & signalling operation :-

Figure 1 shows a typical minimum system where a discrete 24 Vdc supply is employed.

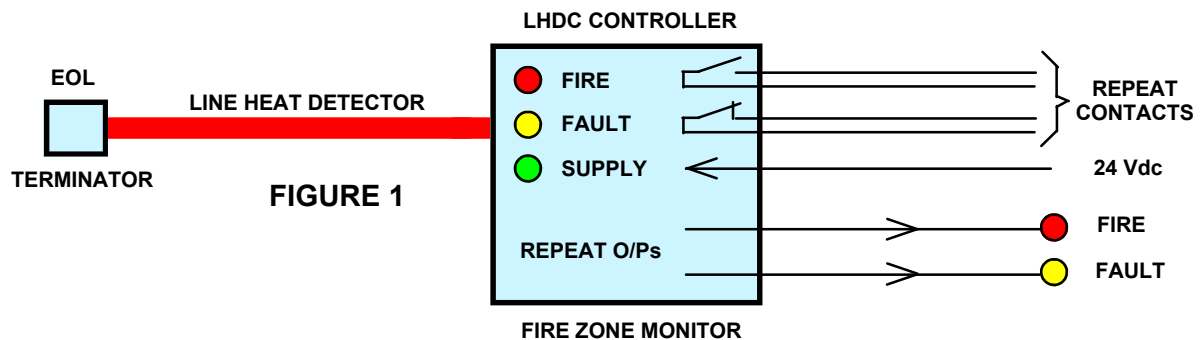
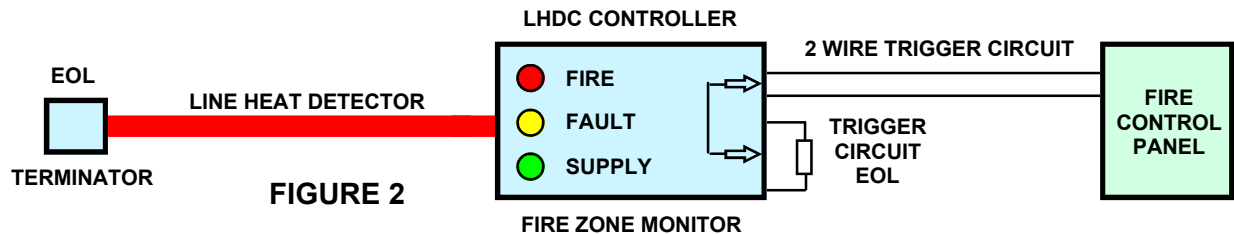
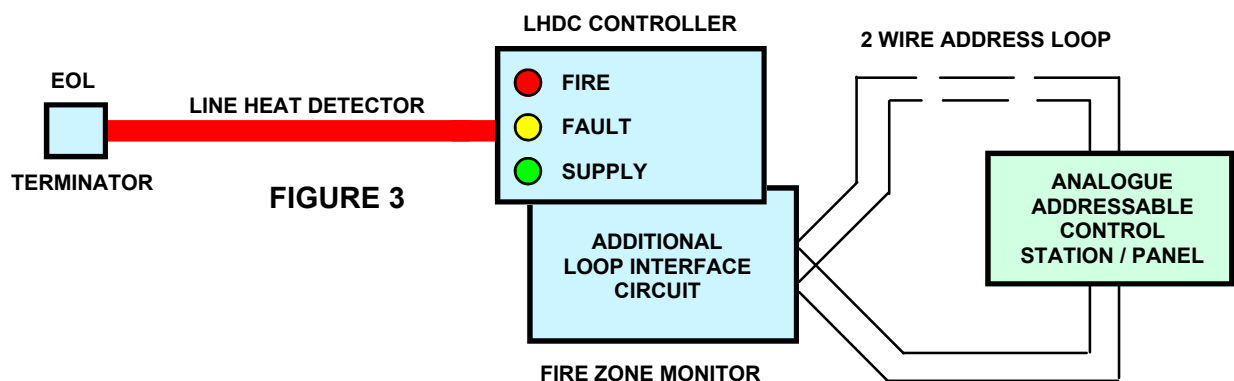


Figure 2 shows a simple configuration with the unit directly connected to a fire panel trigger circuit.



Note: Multiple LDM-519 modules may be configured on a 'trigger circuit'. Units may also be inter-mixed with other devices such as 'point' heat and smoke detectors.

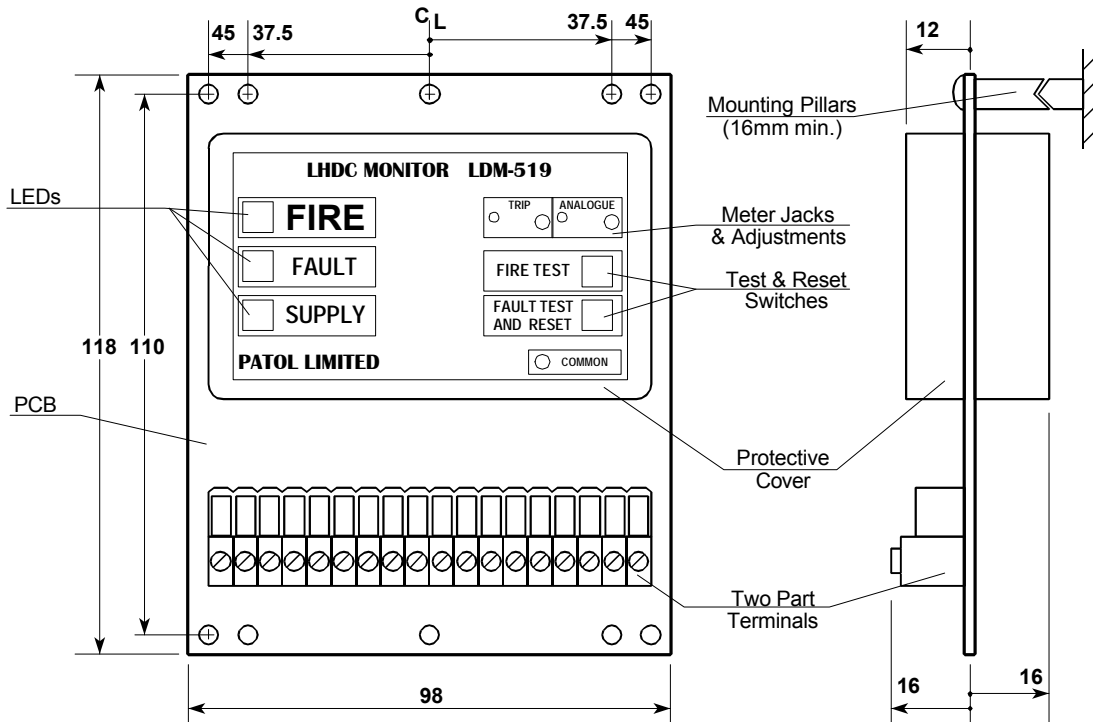
Figure 3 shows the configuration when an integral LOOP interface module is fitted.



# LDM-519 LHDC CONTROLLER

Line Heat Detector Interface & Fire Zone Monitoring Unit

## Module Arrangement



## Connections

Outputs		Fire Load/Remote		Supply 0V		Fault Loop		Supply 24V		Fire Contact		Fault Contact		LHDC			
FIRE	FAULT	-	+	-	-	-	+	+	+	+	+	+	S	C			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

**Notes:**

- When directly connected to a 'trigger circuit' the *Supply +ve (24V)* terminals are used. In this mode the required 'trigger circuit' supply should be greater than 13V. See application data and specification following.
- Cased units with integrated analogue addressable LOOP INTERFACE circuits have separate terminals for LOOP connection.

## Operational Specification

Voltage: 13-30 Vdc (2 wire Mode)  
 20-30 Vdc (Relay Mode)  
 > 5.5 Vdc - Latched Fire  
 < 4.0 Vdc - Reset

Current-Normal < 250 µA (2 wire mode) \*  
 < 10 mA (with fault relay)

\* Plus user defined monitoring current.

Current-Fire 1.2 mA (2 wire mode) \*\*  
 < 10 mA (with fire relay) \*\*  
 < 20 mA (with both relays)

\*\* Plus user defined Fire (trigger) load.

Current-Fault < 300 µA

Relay Contacts 1 A @ 24 Vdc / 120 Vac

**LDM-519 LHDC CONTROLLER**  
Line Heat Detector Interface & Fire Zone Monitoring Unit

*Type 1 Enclosure*

Rating :- IP 66

Lid :- Smoked Transparent

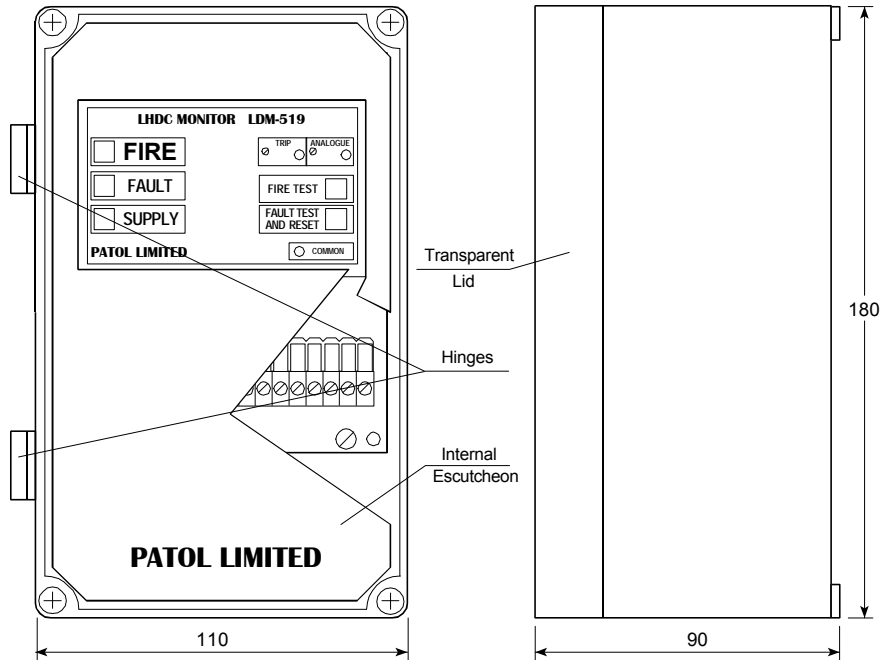
Base- Polystyrene

Colour:- Grey RAL 7035

Hinges (2 off) :- Optional

Escutcheon :- Optional

Versions available with integral address loop modules.



*Type 2 Enclosure*

**TYPE 2A**

Rating :- IP 65

Lid :- Clear Transparent

Material:- Polycarbonate

Base:- Glass filled Polycarb.

Colour:- Grey RAL 7035

**TYPE 2B**

Rating :- IP 67

Lid :- Clear Transparent

Material:- Polycarbonate

Base:- Polycarbonate

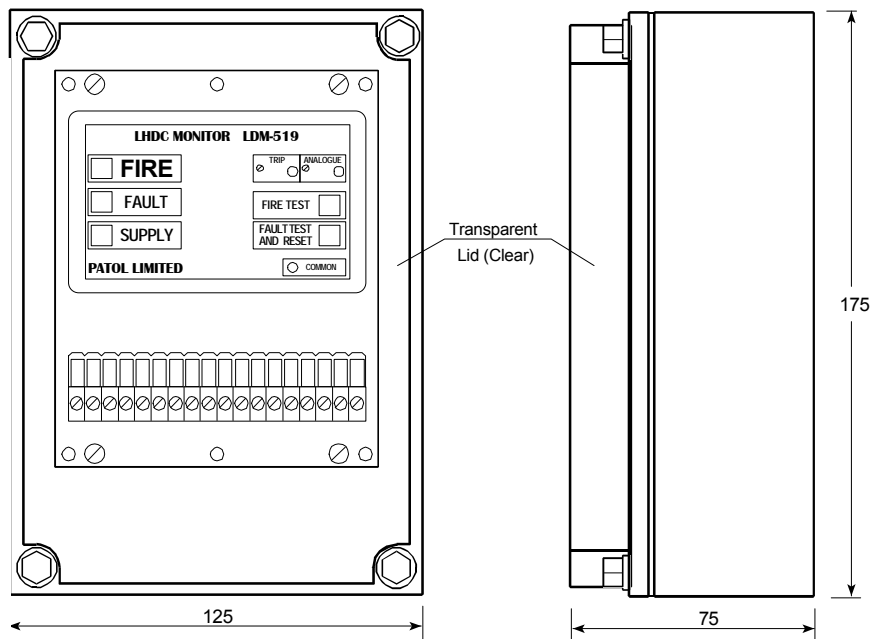
Colour:- Grey RAL 7035

Cable gland 'knock outs':- PG - selectable.

Vertical faces:- 3 off

Horizontal faces:- 2 off

Versions available with integral address loop modules.



Notes:- The 'smoked glass' covers of type 1 enclosures make them particularly suitable for applications where aesthetic presentation is of import. Type 2 enclosures are most suited for industrial applications, or where 'knock out' facilities are to an advantage for installation activity.