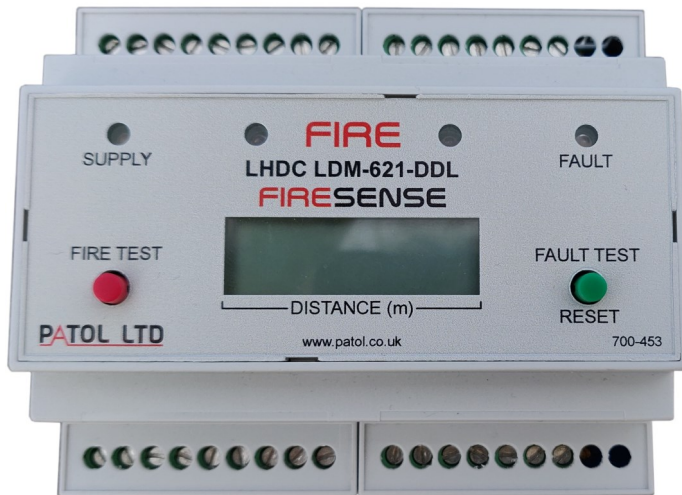


LDM-621-DDL

Digital Interface with Distance Display



Features

- Display of Alarm Location: Distance in metres
- Fault monitoring of LHDC for open circuit conditions
- LED indication of Fire, Fault and Supply status.
- Test & Reset functions
- Operable from two wire fire panel conventional circuits. Line Power
- Analogue address loop interface - Loop Powered configurable
- 4 to 20 mA instrumentation current loop output
- LHDC Hazardous Area use by means of Intrinsically Safe Barriers.
- SIL 2 Certified
- Volt free contact outputs for Fire & Fault conditions
- Din Rail mounting

Applications

- Cable Tunnels, Ducts & Mezzanines
- Escalators & Moving Walkways
- Petro-Chemical Floating and Fixed Roof Tanks.
- Refrigerated Stores & Cold Rooms
- Ceiling Voids & Attic Spaces
- Conveyor, Bearing Protection
- Car Parks, Open Storage Areas
- Warehouse & Racking Protection

The unit is designed to monitor a length of Non-Resettable Digital Linear Heat Detection Cable (LHDC) for both fire condition and fault status (open circuit).

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

The DDL has a 3½ digit LCD which activates on fire condition and displays the distance into the zone the alarm has occurred. Non-Resettable Digital LHDC may be employed in lengths up to 2km (1999m). The unit has an adjustment to accommodate interposing cables.

Signalling of Fire and Fault status by means of VFC may be realised when a separate supply is employed. A 4 to 20mA instrumentation current loop output is provided for connection to PLC's etc.

LDM-621-DDL

Digital Interface with Distance Display

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

Figure 1 (Relay Mode) shows a typical minimum system where a discrete 24Vdc supply is employed. The repeat contacts may be employed to signal an Alarm Panel and/or initiate control systems.

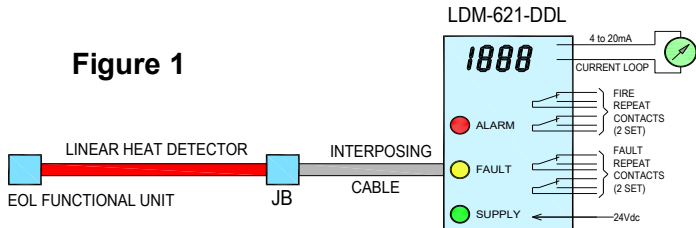


Figure 2 (Line Power Mode) shows a simple configuration with the unit directly connected to a Fire Panel trigger circuit.

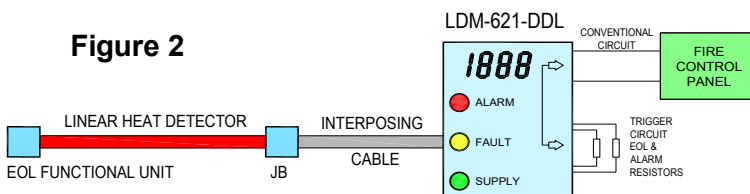
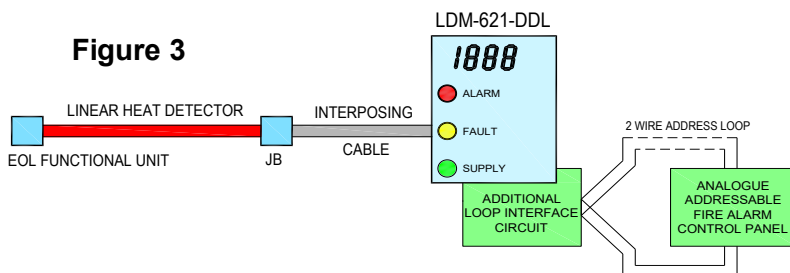


Figure 3 (Line Power Mode) shows the configuration when an integral Addressable Loop interface module is fitted.

Connection between the LDM-621-DDL and the Addressable Loop Module is as the conventional circuit connection of Fig.2.



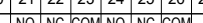
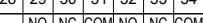
Notes:

Configurations for Fig 2 & 3, is dependant on the Voltage and current specifications of the LDM-621-DDL being compatible with the monitoring technique and electrical characteristics of the Control Panel/Zone Monitor Unit.

LDM-621-DDL-G; Fault current is not less than 1.5mA due to the Galvanic Isolator requiring a minimum level of current

For detailed connections of IS circuits, contact Patol Ltd

Connections

19	20	21	22	23	24	25	26	27		28	29	30	31	32	33	34	
-	+	NO	NC	COM	NO	NC	COM	+		-	NO	NC	COM	NO	NC	COM	Cabling Site Zero Adjust Pot.
A	B							4-20mA Loop Output									
LHDC		Fire Relay -Norm. De-energised										Fault Relay -Norm. Energised					
Supply				Remote Reset		Fault Relay Enable		Fire Relay Enable		Trig. Cct. Alarm Resistor		Trig. Cct. EOL/Mon. Resistor		Calibrate Test Resistor		Calibrate Test Zero Adjust. Pot.	
0V		24V															
-	-	+	+	-	s	c	+	c	+	s	+	s	+	s	+		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		

Specification

Dimensions (WHD):	105mm x 89mm x 58mm
Display:	3½ Digit LCD 0 - 1999m
Character Height:	8.5mm
Unit Accuracy:	+/- 1% (+/- 1 digit)
LHDC Tolerance:	+/- 3%
Voltage:	14 - 30Vdc (2 wire mode) 20 - 30Vdc (relay mode)
Current Normal:	< 2mA (2 wire mode)* < 12mA (with Fault relay) *Plus user defined monitoring circuit
Current Fire:	< 14mA (2 wire mode)** < 29mA (with both relays)*** **Plus user defined Fire (trigger) load. ***Plus 4 to 20mA loop current if used.
Current Fault:	< 700µA (The Galvanic Isolator requires additional current)
Relay Contact:	1A @ 24Vdc / 120Vac

Ordering Information

Description	Part Number
LDM-621-DDL	700-453
LDM-621-DDL-G	700-453(G)
Galvanic Isolator - MTL	700-705
Galvanic Isolator P+F	700-706
LDM-621-DDL-Z	700-453(Z)
Zener Barrier - MTL	700-702
IP65 Enclosure	700-801

Used with the following Digital Cables:

Nylon 70°C	700-070
Nylon S.S* 70°C	700-071
Nylon 90°C	700-090
Nylon S.S* 90°C	700-091
Nylon 180°C	700-180
Nylon S.S* 180°C	700-181
FRPE 73°C	700-070LS0H
FRPE S.S* 73°C	700-071LS0H
FRPE 93°C	700-090LS0H
FRPE S.S* 93°C	700-091LS0H

*Stainless Steel Braid