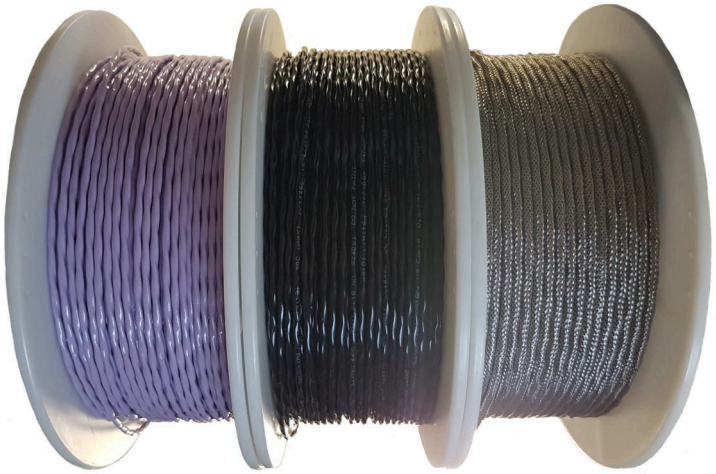
Non-Resettable Digital Linear Heat Detection Cable

PATOL
FIRE DETECTION SOLUTIONS



The Patol Non-Resettable Digital Linear Heat Detection Cable (LHDC) is designed to provide early detection of fire conditions and overheating in circumstances where other forms of detection would not be viable, either due to an inability to sustain the environment requirements or through prohibitive costs.

Extensive single zonal lengths of the Non-Resettable Digital LHDC may be installed with the ability to trigger alarms for hot spots occurring on very small sections of the overall cable, with the ability to identify the distance in metres when connected to a Digital Interface with Distance Location Display.

The Non-Resettable Digital LHDC may be employed in a wide variety of applications but is particularly suited where there are harsh environmental conditions, a physical or hazardous maintenance access constraint to protect the area, and / or a requirement to cost effectively install detection in close proximity to the risk(s).

The primary mechanism of Non-Resettable Digital LHDC is that the inner cores insulating polymers are specially formulated such that the polymers plasticize at a specific temperature, causing the inner cores to make contact and send a signal to the controller.

Features

SIL 2 Approved when used with Digital Interface Modules:
LDM-519-DIM-28
LDM-621-DDL
LDM-519-DIM (Legacy)
LDM-519-DDL (Legacy)

UL Listed.

UV and Chemical Resistant.

Early Detection of hazards at temperatures well below flame point.

Rugged construction - Stainless Steel outer armour available.

Fixed Alarm Trigger Temperature.

Compatible with many existing zone monitors / Control Equipment.

Intrinsic Safety Configurable for Hazardous Areas.

Applications

- Cable Tunnels, Ducts & Mezzanines
- Escalators & Moving Walkways
- Petro-Chemical Storage Tanks / Rim Seal Protection
- Paint Shops, Spray Booths & Climate Chambers
- Conveyors - Coal, Wood, Sulphur. etc
- Ceiling Voids & Attic Spaces
- Road & Rail Tunnel Carriageways
- Nuclear Reactor Plant Areas
- Refrigerated Stores & Cold Rooms
- Electrical Control & Switchgear Cabinets
- Warehouse High Rise Pallet Racking
- Oil Rigs & Off Shore Platforms
- Fume Cupboards & Glove Boxes
- Grain Silos & Agricultural Storage
- Road / Rail Vehicle Engine Compartments
- Steam Pipe Leaks & Trace Heating Faults
- Product Lines - Flanges, Valves & Pumps
- Computer Room under Floor Cable Voids

FIRESENSE
LINEAR HEAT DETECTION CABLE

UL LISTED

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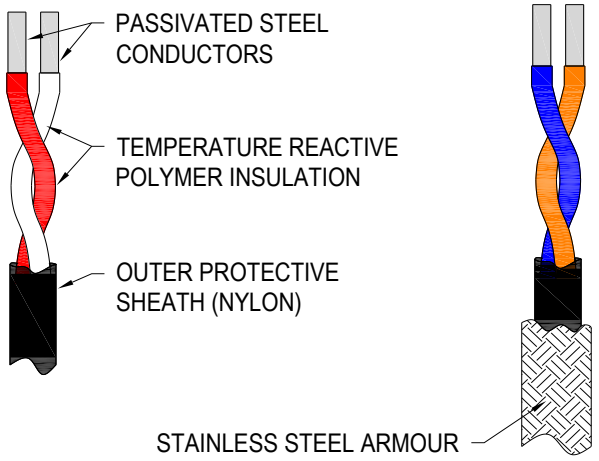
Cable Construction

The Patol Non-Resettable Digital LHDC comprises of a twisted pair twin core cable. Each core is of tinned copper coated spring steel and has a special heat reactive polymer insulation.



700-090 Shown

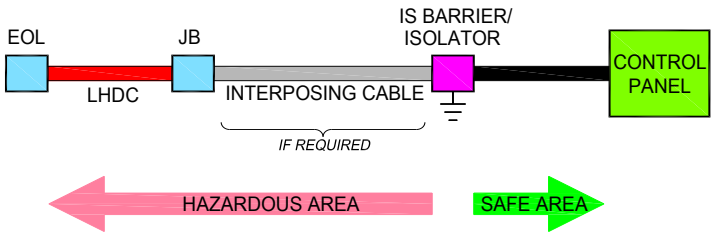
700-071 Shown

Non-resettable Digital LHDC may be used as a simple switch to operate a relay etc. However in most installations the minimum requirement is that the LHDC circuit is monitored for disconnections (Open Circuit) by means of an EOL functional unit and an appropriate Fire Alarm channel or Address Loop Interface unit.

Temperature Specifications

Part Number	Alarm Temperature	Maximum Ambient	Minimum Operating	Minimum Installation
700-070	70°C	45°C	-65°C	-40°C
700-071				
700-090	90°C	70°C	-65°C	-40°C
700-091				
700-180	180°C	150°C	-65°C	-40°C
700-181				

Intrinsic Safety Configuration



Specification

No. of Cores:	2
Voltage Rating:	150Vdc (Dielectric Test 500Vdc)
Outer Diameter: (Max)	4.0mm ± 0.3mm S.S. Armour 4.5 ± 0.3mm
Weight:	
Standard cable	1km reel 21kg
Armoured cable	500m reel 19kg
Approval:	UL Listed (180°C not certified)

Ordering Information

Description	Part Number
Cable- UL Listed	
Nylon 70°C (outer sheath black)	700-070
Nylon S.S* 70°C	700-071
Nylon 90°C (outer sheath black)	700-090
Nylon S.S* 90°C	700-091
Nylon 180°C (outer sheath violet)	700-180 **
Nylon S.S* 180°C	700-181 **

***Stainless Steel Armour**

****Not UL listed**

Controllers	
LDM-519-DDLX (10K)	700-471
LDM-519-DIM-28	700-442(SIL2)
LDM-621-DDL	700-453(SIL2)
LDM-621-DDL-G	700-453(G)(SIL2)
LDM-621-DDL-Z	700-453(Z)(SIL2)
LDM-519-DDL (Legacy)	700-451(SIL2)
LDM-519-DDL-G (Legacy)	700-451(G)(SIL2)
LDM-519-DDL-Z (Legacy)	700-451(Z)(SIL2)

700-451(G) suitable only for use with Galvanic Isolator

700-453(G) suitable only for use with Galvanic Isolator

700-451(Z) suitable only for use with Zener Barrier

700-453(Z) suitable only for use with Zener Barrier

EN54-28 certified options available

See Information sheets

D1453,D1476 & D1477 for further information

EOLs & Junction Boxes refer to D1210

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