Digital Linear Heat Detection Cable LHDC

The Patol Digital Linear Heat Detection Cable 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 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 meters.

The LHDC may be employed in a wide variety of applications but is particularly suited where there is harsh environmental condition, 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 LHDC is that the inner cores insulating polymers are specially formulated such that the polymers will plasticizes 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 LDM-519-DIM or LDM-519-DDL module.
- 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.
- Intrinsically Safe 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
Digital
Linear Heat Detection Cable

Cable Construction

The Patol 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.

LHDC Digital 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 device and an appropriate fire alarm channel or address loop interface unit.

Intrinsically Safe Configuration

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>Nylon 70°C</td>
<td>700-070</td>
</tr>
<tr>
<td>Nylon S.S* 70°C</td>
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<td>700-180</td>
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*Stainless Steel Armour

Controllers and Termination boxes used with the above Digital cables:

- LDM-519-DL 700-451 (SIL 2 Approved)
- LDM-519-DL-G 700-451(G) (SIL 2 Approved)
- LDM-519-DL-Z 700-451(Z) (SIL 2 Approved)
- LDM-519-DLX 700-471
- LDM-519-DIM 700-441 (SIL 2 Approved)

EOL & Through box refer to D1210

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

This document is only intended to be a guideline and is not applicable to all situations.

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