

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 LHDC Digital may be installed with the ability to trigger alarms for hot spots occurring on very small sections of the overall cable.

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 core insulating polymer is specially formulated such that it plasticizes at a specific temperature.

Features

SIL 2 Approved when used with DIM module

UL Listed.

UV and Chemical Resistant (Rilsan)

Early Detection of hazards at temperatures well below flame point.

Rugged construction—Stainless Steel outer sheath 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

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

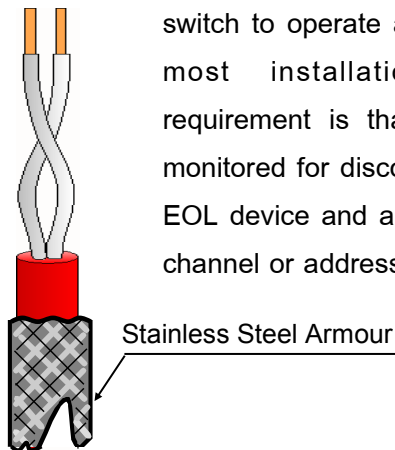
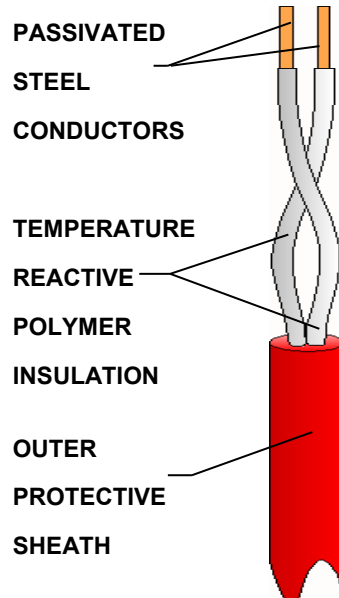
Product Lines - Flanges, Valves & Pumps

Computer Room under Floor Cable Voids

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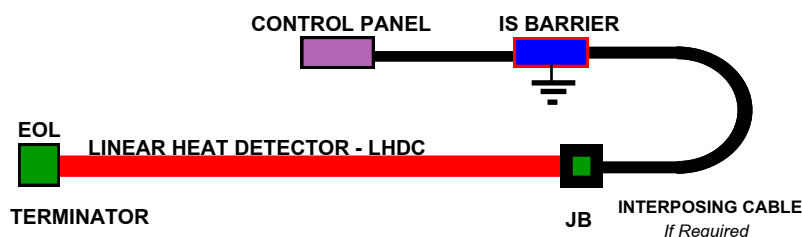
Cable Construction

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. The cable has an overall protective jacket / sheath.



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 by means of EOL device and an appropriate fire alarm channel or address loop interface unit.

Intrinsically Safe Configuration



Specification

Number of Cores: 2

Alarm Temperature:

700-070 = 70°C

700-090 = 90°C

700-180 = 180°C

Max Ambient Temperature:

700-070 = 45°C

700-090 = 70°C

700-180 = 150°C

Minimum Operating Temperature: -40°C

Minimum Installation Temperature: -10°C

Outer Sheath:

Nylon (70°C & 90°C - Black)*

Hytrel (180°C - Violet)*

Nylon with Stainless Steel Armour*

* UV & Chemical Resistant (Rilsan)

Voltage Rating:

150 Vdc (Dielectric Test 500Vdc)

Outer Diameter: (Max. see Data Sheet)

Nylon 4.0mm ± 0.3mm

Nylon & Stainless Steel Armour 4.5 ± 0.3mm

Weight:

Standard cable - 1km on the reel 21kg

Armoured cable - 500m on the reel 34kg

Approval: UL Listed (180°C Pending)

Ordering Information

Description	Part Number
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

*Stainless Steel Armour

Controllers and Termination boxes used with the above Digital cables:

LDM-519-DDL	700-451
LDM-519-DDLX	700-471
LDM-519-DIM	700-441 (SIL 2 Approved)