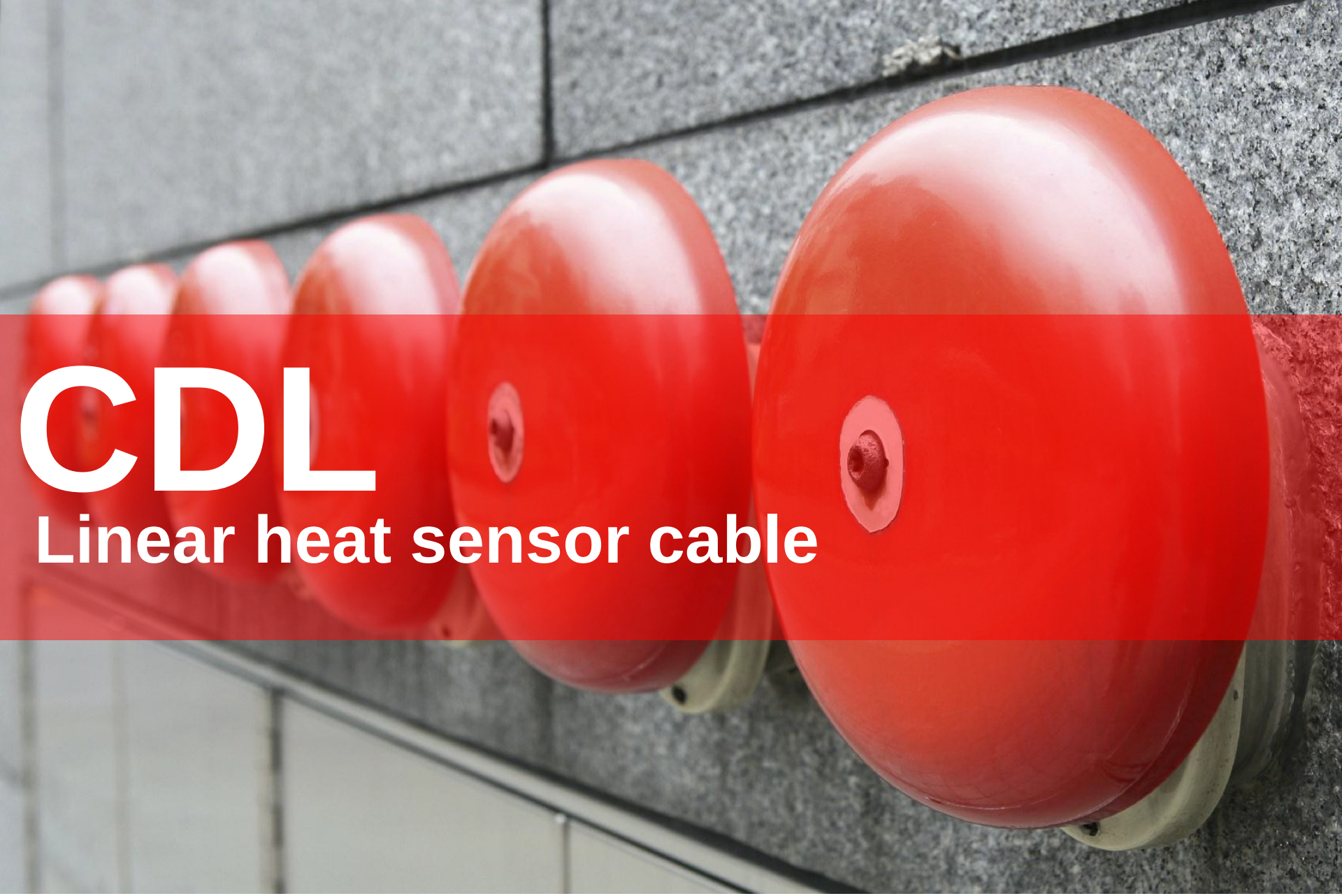
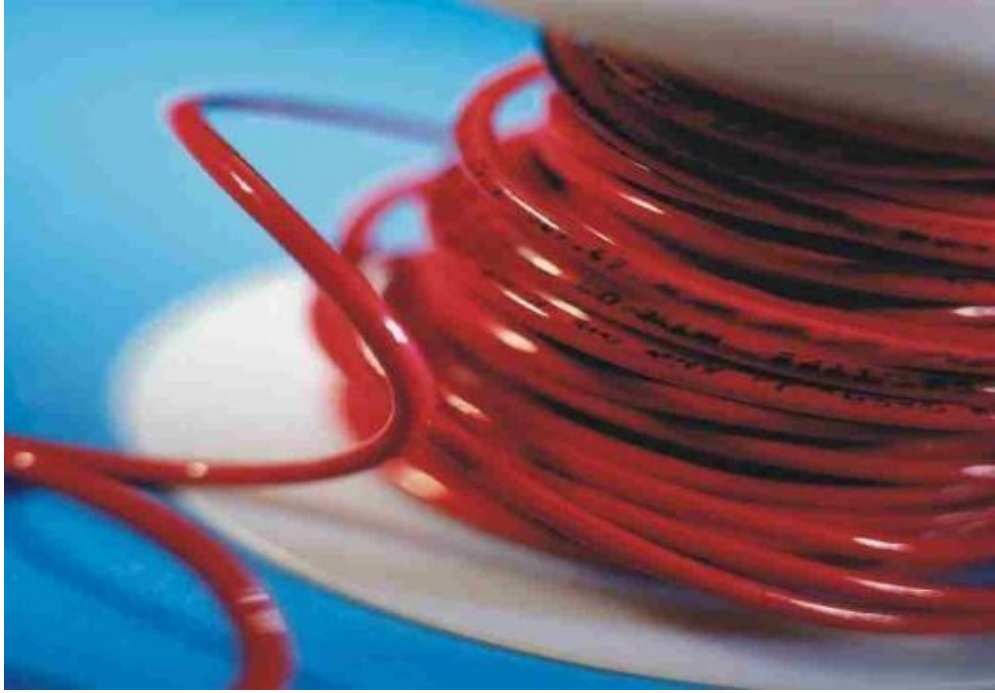


CDL

Linear heat sensor cable

CDL Linear heat sensor cable is made up of 2 conductors covered by a heat sensitive polymer which when reaching the preset temperature melts getting in contact and giving an alarm signal .

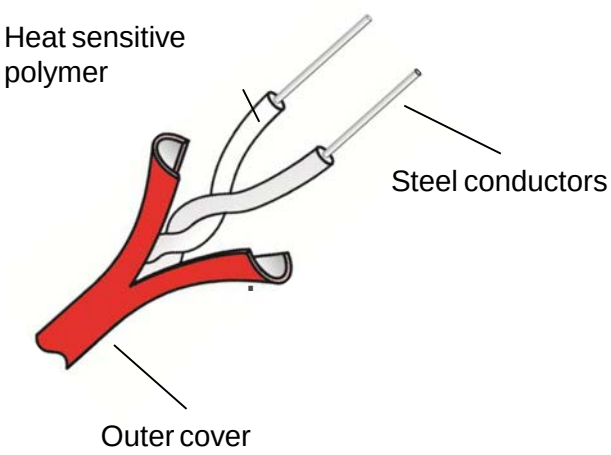


- **Detector and cable in one**
- **Easy installation**
- **Allows the integration with fire detection control units**
- **Fast reaction at incipient stage of detection**
  –increasing temperature-
- **CDL Linear heat detection cable holds the approval by F.M. & U.L**

DURAN electrónica®
DURAN ELECTRONICA. Tomás Bretón 50, 28045 Madrid, Spain
www.duranelectronica.com

AVAILABLE TEMPERATURES

Linear heat detection cables CDL are manufactured in 4 temperature ratings:



	Maximum ambient temperature[1]	Alarm temperature [2]
CDL68	45ºC/113ºF	68ºC/155ºF
CDL78	50ºC/122ºF	78ºC/172ºF
CDL88	70ºC/140ºF	88ºC/190ºF
CDL105	70ºC/158ºF	105ºC/220ºF

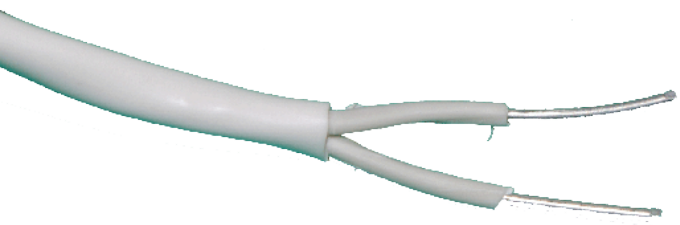
[1]Maximum recommended temperatures, considering fluctuations in ambient temperature.

[2] CDL sensor cable does not depend on cable length.

AVAILABLE OUTER COVERS

Standard. Outer cover by vinyl for general applications. UV resistant

Polypropylene. Offers thermal stability, endurance, chemical resistance & mechanical integrity.



Nylon. Offers increased protection against mechanical damage. Recovered by Nylon, able to work under agressive industrial applications.

CHARACTERISTICS (1/2)

Compatible with any conventional or analogical fire detection control unit by using a conventional module.

Alarm temperature does not depend on cable length.

After an alarm, only affected cable has to be replaced.

Alarm response times: less than 8s. – tested by U.L.-

Wide temperature ratings depending on applications.

Suitable for installation within a wide range of adverse environments.

Allows connecting different cables of different temperatures per zone.

CHARACTERISTICS (2/2)

Precision alarm range: +/-3% of indicated temperature.

Maximum coverage of 10,7m – tested by U.L. –

Working temperatures: from -40ºC to 70ºC

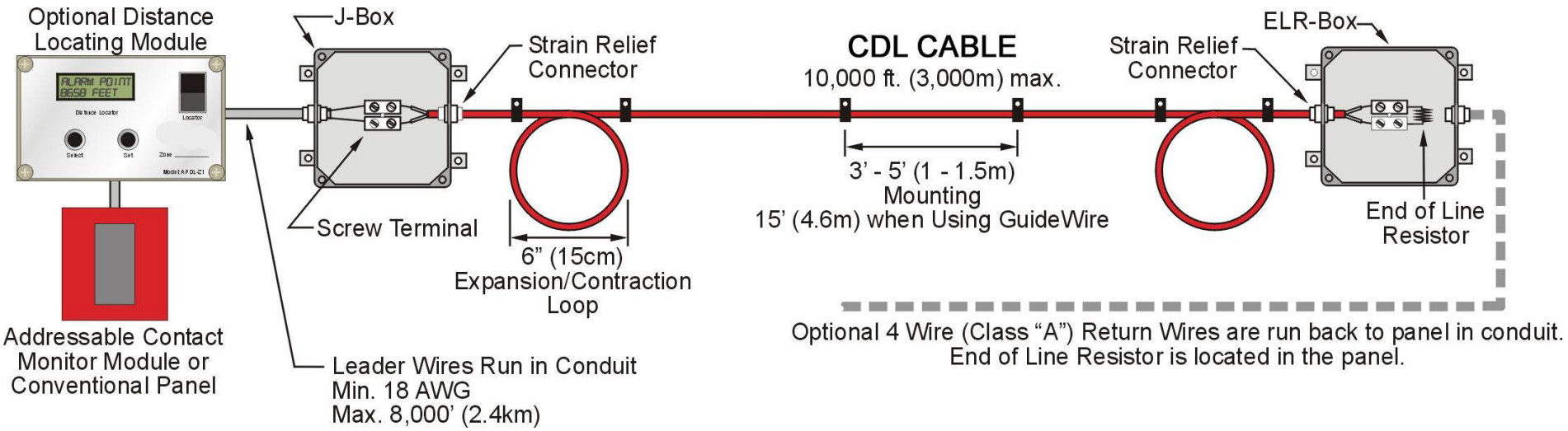
Detection of “exact alarm point” (in installations with DL control units)

No calibration required.

Standard jointing used & easy site test.

Full product traceability.

INSTALLATION (1/2)



CDL Sensor cable is used as a part of a fire detection system.

Cable connecting can be done:

-Directly to the control unit, both conventional or analogical: such PRISMA*, DELTA*, ELITE*, BOSCH, etc.

-With DL distance locators , connected to a fire control unit as well. Allows detecting the exact alarm point within a maximum distance of 3.000m

* Manufactured by D.E.

INSTALLATION (2/2)

Interconnecting cable: Do connect a copper cable of 1.5mm^2 section from any DL locator or fire control unit up to risk area, from where it will be later connected to sensor cable.

Install the cable at ceiling level or on side walls within 50cm of the ceiling.

Distance between wire layings – coverage area - shall not exceed 10,7m

Installation of CDL sensor cable shall begin in a junction box and terminate in an end-of-line termination box with end-of-line resistor

Interconnection box

TECHNICAL CHARACTERISTICS

External diameter	3,2mm
Dielectric Voltage Withstand	500V DC- tested by U.L.-
Conductors:	2 conductors of steel, copper and tin alloy
Electrical rating	30VAC -42,2V DC- , 10A
Conductor resistance	164 ohms/Km. max. per conductor
Capacitance	CDL68: 150pF/m CDL88: 97pF/m CDL105: 88pF/m
Inductance	CDL68: 960nH/m CDL88: 540nH/m CDL105: 1060nH/m
Impedance	CDL68: ~80ohm CDL88: ~75ohm CDL105: ~110ohm
Inner extrusion	Heat sensitive polymer
Outer extrusion	Color class 43 PVC polymer – plumb & cadmiun free
UTS- tensile strenght	1.700 (N/mm^2) minimum-tested by BS EN 60811-1-
Minimum sensor cable Bend radius	76.2mm -recommended-

DL Distance locator

DL Distance locator

Identify exact alarm point along the whole cable. Up to 3.000 m.

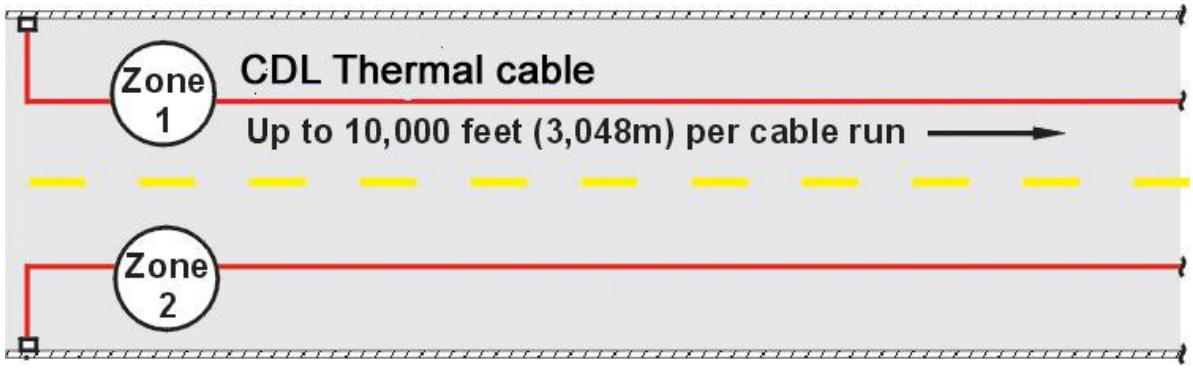
Suitable for applications such; warehouses, conveyor belts, road & rail tunnels, floating roof tanks etc

UL 864 10th ed., ULC S527-11 Certified – for indoors installations.

- Usable with any conventional or analogical control unit
- Detection of exact alarm point in metres and feet
- NEMA 4, 4X (IP65) to be used in indoors installations
- Retro-illuminated display
- Easy installation
- 12VDC / 36VDC

Applications

EXAMPLE 1: TUNNELS



CDL sensor cable shall be installed at ceiling levels within a maximum distance of 10,7m. between each detecting section.

Closer sections to external walls shall keep a maximum distance of (5,3m).

EXAMPLE 2: ESCALATORS AND ELEVATORS

CDL sensor cable is the best fire detection system for elevators and escalators.

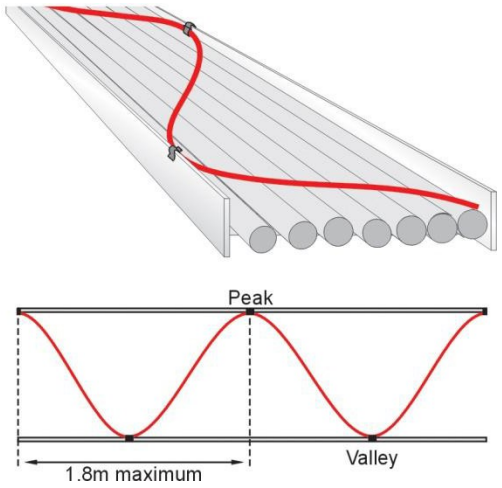
For this kind of machinery which causes friction between materials, it is specially indicated cable provided of NYLON extrusion.

Besides, this installations use to be constantly acting and are dificult accessed, so would be better to install a detection system which does not require maintenance.

EXAMPLE 3: CABLE TRAYS

Maintenance and replacement of fire detectors in cable trays is complex due to dificult access of this installations.

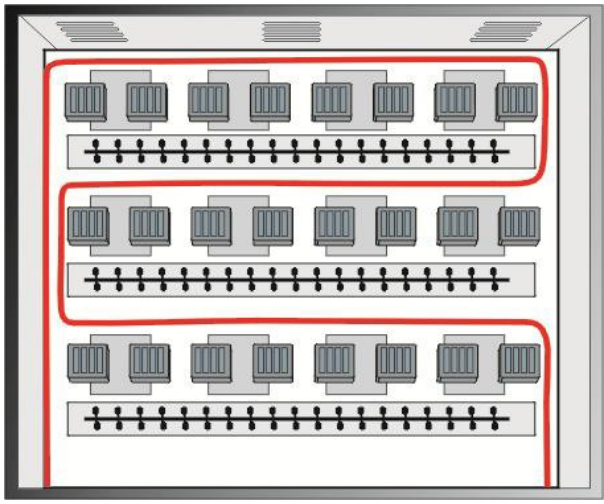
CDL sensor cable allows keeping a constant control of temperature in cables and it is specially indicated for this applications because does not need maintenance operations.



MULTI-TRIER CABLE TRAYS
-NORTH AMERICAN DESIGN-

EXAMPLE 4: WAREHOUSES

CDL sensor cable is able to work under temperatures up to -40ºC, which makes it a suitable fire detection system in warehouses at controlled temperature (freezers or industrial refrigerators) whether working places with a temperature lower than 0ºC



EXAMPLE 5: TRANSFORMERS AND GENERATORS

CDL sensor cable is able to operate under adverse environments and areas of limited access and surveillance.

Cable can be installed directly to the device to be protected whether the ceiling or floor, to assure protection and give a fast response.

CDL sensor cable can operate at temperatures lower than 0ºC, in ambients with presence of dirt, dust, humidity or corrosion, as well as access and control limited areas.

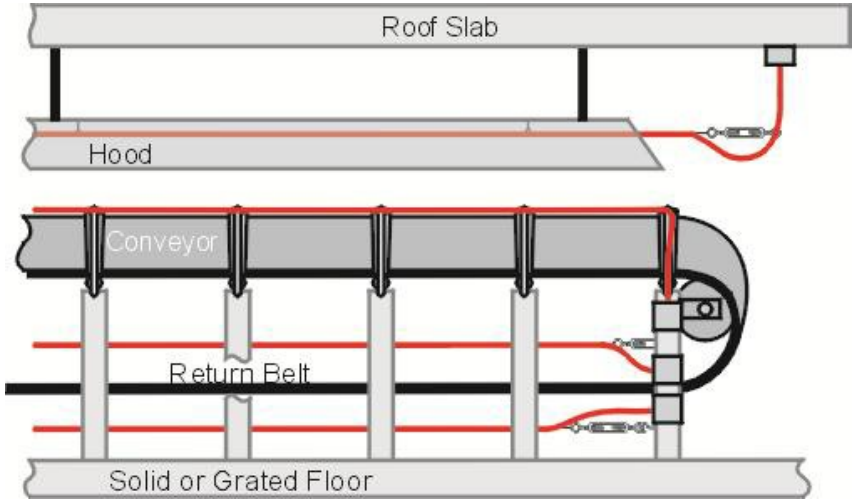
EXAMPLE 6: CONVEYOR BELTS

In electricity generating plants by coal, may be fire in their transport systems.

Fire in such installations are caused by friction between conveyor belt supports and spread materials on the belt itself.

Linear heat detection by CDL sensor cable allows the possibility to detect overheat and provide an alarm signal .

In this kind of installations it is indicated cable of NYLON.



CERTIFICATES

Certificate UL 1581 1090.1 y 1090.2, about propagation and self extinguishing requirements

FM about minimum temperature exposure specification: -40ºC

Underwriters Laboratory (U.L.) and (C-UL)– File Nº: S24018 U.L. listed

Certificate FM 3023073

CSFM Approved: Certified by California State Fire Marshall: 7270-1686:100

C US APPROVED CSFM

MEA

ISO 9001 Registered