Linear Heat Detector (LHD)

System Sensor 800 series digital linear heat detector and 900 series analogue linear heat detector offer early detection of fire and overheating conditions in industrial high risk hazards as well as many types of commercial applications.

FEATURES

- Multiple configurations for installations:
    - Digital type of LHD cables
    - Analogue type of LHD cables

- Multiple alarm temperature ratings available for both digital and analogue type

- Maximum zone length (Digital) - 1000 meters

- Maximum zone length (Analogue) – 600 meters

- Resettable temperature up to 120°C (248°F) (Analogue)

- Selectable alarm temperature threshold programmed before shipping (Analogue)

- Normal, fault and alarm indicators on the 900 series modulator (Analogue)

- Compatible with any conventional or intelligent fire alarm panel

- Smoothing algorithms provide false alarm immunity

900 series   **800 series**

The Linear Heat Detection Cable (LHDC) is a continuous heat detector in the form of a cable. It can detect heat at any points along its entire length. The cable is composed of two twisted shield conductors insulated with a heat sensitive polymer, then wrapped with a protective tape and finished with an outer covering.

Linear Heat Detection Cable is available in resettable and non-resettable technology. The non-resettable cable is described as Digital and the resettable as Analogue.

800 Series Digital LHD Cable (Non-Resettable)

The 800 series is a fixed temperature and non-resettable digital cable. The cable contains insulators which melt at a specific temperature. At the rated temperature, the heat sensitive polymeric insulation creates pressure between conductors, permitting them make contact with each other thereby initiating an alarm signal at the control panel. The LHDC is installed in conjunction with an end-of-line (EOL) device for continuity monitoring and a junction box (optional) for leader wire connection.
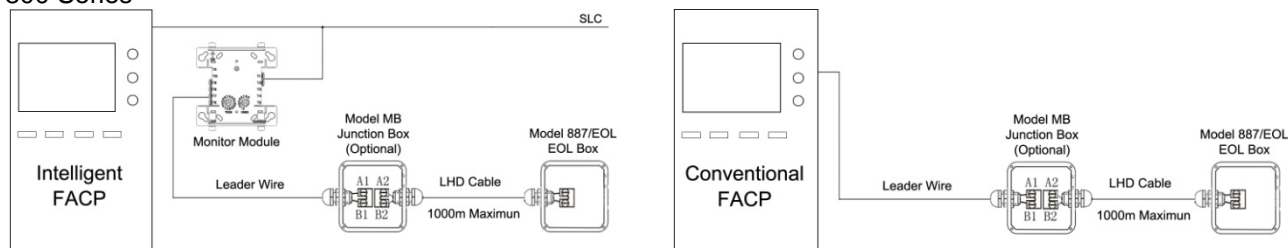
900 Series Analogue LHD Cable (Resettable)

The 900 series is an analogue heat sensing cable containing insulators of which resistance varies proportionally to changes in temperature. Analogue cable is installed in conjunction with an end-of-line (EOL) device for continuity monitoring and a modulator providing selectable alarm thresholds (programmed before shipping), fire and fault outputs. This cable is self-restorable after the fire event as long as its temperature does not exceed specified resettable temperature limit of 120°C (248°F). Alarm temperature setting ranges between 70°C to 130°C (158°F to 266°F). Customer can specify its own alarm temperature setting. The factory default setting is set at 85°C (185°F).
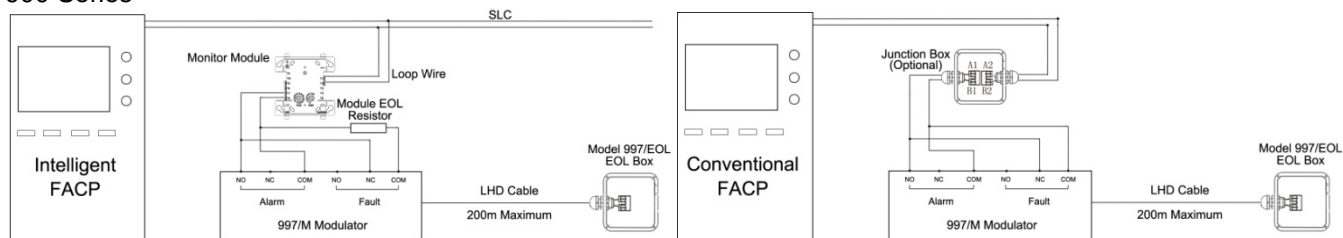
Agency Listings

Typical Wiring Diagrams

800 Series

900 Series

Specifications

Physical/Operating Specifications	JTY-LD-N*-887	JTY-LD-997
Type of Cable	Digital	Analogue
Alarm Temperature	70°C(158°F, not available for Nylon sheath), 85°C(185°F), 105°C(221°F), 138°C(280.4°F)	70°C to 130°C (Set by factory, default setting 85°C) 158°F to 266°F (Set by factory, default setting 185°F)
Operating Temperature Range	-25°C to (N* - 20)°C -13°F to (N* - 36) °F	-25°C to (Alarm Temp. - 20) °C -13°F to (Alarm Temp. - 36) °F
Reset Temperature	NA	≦120°C (248°F)
Max Zone Length	1000m	600m
Min Bend Radius	1.5 cm	1.5 cm
Standard Roll Length	200m or 600m	200m or 600m
Conductor Material	Steel	Steel
Outer Sheath Option	PVC/Nylon/Steel	PVC/Nylon/Steel
Weight	1.8kg/100m (1.2lb/100ft)(PVC sheath)	1.4kg/100m (0.94lb/100ft)(PVC sheath)
Electrical Specifications	JTY-LD-N*-887	JTY-LD-997
Operating Voltage / Contact Ratings	NA	20 – 26 VDC
Standby Current	NA	25mA
Alarm and Fault Current	NA	45mA
Resistance	0.32ohms/m (0.1ohms/ft)	NA

*N denotes for 70/85/105/138°C

Ordering Information

Part No.	Type of Cable	Temperature Ratings
800 Series		
JTW-LD-70-887	Digital heat sensing cable, PVC sheath	70°C (158°F)
JTW-LD-85-887	Digital heat sensing cable, PVC sheath	85°C (185°F)
JTW-LD-105-887	Digital heat sensing cable, PVC sheath	105°C (221°F)
JTW-LD-138-887	Digital heat sensing cable, PVC sheath	138°C (280°F)
JTW-LD-85-887N	Digital heat sensing cable, Nylon sheath	85°C (185°F)
JTW-LD-105-887N	Digital heat sensing cable, Nylon sheath	105°C (221°F)
JTW-LD-138-887N	Digital heat sensing cable, Nylon sheath	138°C (280°F)
JTW-LD-70-887S	Digital heat sensing cable, Steel sheath	70°C (158°F)
JTW-LD-85-887S	Digital heat sensing cable, Steel sheath	85°C (185°F)
JTW-LD-105-887S	Digital heat sensing cable, Steel sheath	105°C (221°F)
JTW-LD-138-887S	Digital heat sensing cable, Steel sheath	138°C (280°F)
887/EOL	End of Line box for 800 series cable	
900 Series		
JTW-LD-997	Analogue heat sensing cable	Pre-selecting range 70 °C~ 130 °C(158°F to 266°F) , (factory default setting 85°C (185°F))
997/M	Modulator for 900 series cable	
997/EOL	End of Line box for 900 series cable	
Accessories		
MB	Junction box for 800/900 series cable	