

# **SEAGULL SAFETY**



# Digital Linear Heat Detection

- Seagull LHD (Linear Heat Detector) is a cable type sensor capable of detecting heat from a fire over its entire length
- Suitable for open area as well as proximity detection.
- Also ideal for confined areas or harsh environments which prohibit the use of other forms of detection
- Compatible with any fire control panel that is capable of accepting contact closure type initiating devices
- · Simple and cost effective installation



## SEAGULL LHD DIGITAL

Fixed Temperature Detector

### SEAGULL LHD - DIGITAL

- FM approved with up to 20 feet between parallel runs.
- · Two core cable.
- Fixed temperature detection insulation designed to melt at a specific temperature enabling the two inner cores to short circuit
- Five different alarm temperature cables available.
- Monitoring equipment detects the short circuit and activates its alarm sequence.

## Cable Construction



#### Conductor:

Tinned copper covered steel

#### Insulation:

Temperature Sensitive, Thermoplastic or Fluoropolymer **Outer Sheath:** 

PVC, Nylon or Fluoropolymer entire length.

Seagull LHD - Digital Cable Type	Material	Max. Ambient Storage Temp.	Min. Operating Temp.	Alarm Temperature	Flame Detection	Applications
Type S888- LHD105	Black PVC outer sheath	70°C	-30°C	105°C	12sec (max.)	Excluding areas contaminated by chemical agents
Type S888- LHD176	Red PVC outer sheath	105°C	-40°C	176°C	20sec (max.)	Excluding areas contaminated by chemical agents
Type S888- LHD1241	White fluoropolymer outer sheath	200°C	-50°C	241°C	20sec (max.)	For high ambient temperatures or protection against chemical agents









# S888-LHD/DIM Digital Interface Module



- · Volt free relay outputs for Fire and Fault
- Provides monitoring of faults on both field wiring and the LHD
- · LED Fire and Fault indicators
- Remote LED indicator outputs for both Fire and Fault
- · Fire and Fault Test Functions
- Suitable for monitoring hazardous area applications when using safety barriers
- DIN Rail compatible

#### **APPLICATION**

The Digital Interface Module (DIM) monitors the Linear Heat Detection (LHD) cable for both Fire and Fault (open circuit) conditions. By the use of an additional series resistor it can also offer discrimination of a short circuit fault on the interposing field wiring.

With the ability to monitor up to 5000m for both Fire and Fault conditions the DIM enhances any fire detection capability and allows an appropriate action to be taken.

The DIM has volt free relay outputs for Fire and Fault which can be configured for connecting directly into a conventional fire alarm panel or addressable interface module.

As well as having Fire and Fault indicators built in, it has two pairs of outputs for driving remote LED indicators for Fire and Fault.

- · Power Generation
- Cable Trays / Tunnels
- · Road and Rail Tunnels
- Car Parks
- Conveyors (Bearing) protection
- Storage racks warehouse, Refrigerated rooms and cold stores.
- Petro-chemical storage tanks, rim seal protection
- Motor and pump overheat detection.
- · Dirty and dusty environments.
- · Building exteriors under eaves

## **TECHNICAL SPECIFICATION**

#### **ELECTRICAL**

Operating voltage 21 - 30 VDC

Operating Current Normal 25 mA (Fault relay energised)

Fire Alarm (max) 56 mA

#### **OUTPUTS**

## Fire

2 x VFCO relays, 1.0 Amp 24VDC / 120 VAC

 $1\,x$  VFCO relays, 1.0 Amp 24VDC / 120 VAC

Remote indicator outputs

4 x 100 mA

#### Inputs

Reset and lamp test

Maximum length of LHD

5,000m

### **MECHANICAL**

### Dimensions

H90 x W71 x D58 mm





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# **SEAGULL SAFETY**



# S888-LHD/DLI/2 Digital Location Interface (Monitoring distance 2Km)



- Detection & display of Alarm location for the complete length of LHD cable from 0m to 1,999m
- · 3½ Digit LCD
- · LED Fire and Fault indicators
- · Fire and Fault Test Functions
- Suitable for monitoring hazardous area applications using safety barriers
- DIN Rail mounted or IP 65 Housing available
- · Volt free relay outputs for Fire and Fault
- 4 20mA output
- · Configurable for 2 wire mode
- · Remote reset input

#### **APPLICATION**

The Digital Location Interface (DLI) monitors the Linear Heat Detection (LHD) cable and when activated identifies the location of the alarm. The distance in meters is then displayed on the 3½ digit LCD. Providing detection and location along the complete length of the LHD cable.

With the ability to monitor up to 2000m for both Fire and Fault conditions the DLI enhances any fire detection capability and allows an appropriate action to be taken.

The DLI offers flexible interfacing options, designed as a two wire device for connecting directly into a conventional fire alarm panel, it also has the ability to signal via volt free relay contacts for Fire and Fault, plus a 4-20 mA output representing 0m to 2000m.

The DLI is available as a DIN Rail mountable unit or fitted into an IP 65 weather proof enclosure.

- Power Generation
- Cable Trays / Tunnels
- · Road and Rail Tunnels
- · Car Parks
- · Conveyors (Bearing) protection
- Storage racks warehouse, Refrigerated rooms and cold stores.
- Petro-chemical storage tanks, rim seal protection

## **TECHNICAL SPECIFICATION**

#### **ELECTRICAL**

Operating voltage 14 - 30 VDC Two wire mode

20 - 30 VDC Relay mode

**Operating Current** 

Normal Quiescent 1.7 mA Two wire mode

11.5 mA Relay mode

Fire Alarm (max) 12 mA Two wire mode

29 mA Relay mode

Fault Condition 700 uA

**OUTPUTS** 

Fire 2 x VFCO relays, 1 amp

24 VDC / 120 VAC Resistive

Fault 2 x VFCO relays, 1 amp

24 VDC / 120 VAC Resistive 4 - 20 mA signal loop output

LCD 3½ Digit (Accuracy ±1 digit,

Tolerance ±3%)

Input Remote Reset

Maximum Length 2,000m

of LHD

**MECHANICAL** 

Cable Entries

Dimensions H105 x W86 x D58 mm

(DIN Rail version) H200 x W164 x D116 mm

(Polystyrene enclosure)

2 x M20 each side.

4 x M20, 1 x M25 Top 4 x M20, 1 x M25 Bottom





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# **SEAGULL SAFETY**



# S888-LHD/DLI/10 Digital Location Interface (Monitoring distance 10Km)



- Detection & display of Alarm location for the complete length of LHD cable from 0m to 1,999m
- · 4 Digit LCD
- · LED Fire and Fault indicators
- · Fire and Fault Test Functions
- Suitable for monitoring hazardous area applications using safety barriers
- DIN Rail mounted or IP 65 Housing available
- · Volt free relay outputs for Fire and Fault
- 4 20mA output
- · Configurable for 2 wire mode
- · Remote reset input

#### **APPLICATION**

The Digital Location Interface (DLI) monitors the Linear Heat Detection (LHD) cable and when activated identifies the location of the alarm. The distance in meters is then displayed on the 4 digit LCD. Providing detection and location along the complete length of the LHD cable.

With the ability to monitor up to 10,000m for both Fire and Fault conditions the DLI enhances any fire detection capability and allows an appropriate action to be taken.

The DLI offers flexible interfacing options, designed as a two wire device for connecting directly into a conventional fire alarm panel, it also has the ability to signal via volt free relay contacts for Fire and Fault, plus a 4-20 mA output representing 0m to 10,000m.

The DLI is available as a DIN Rail mountable unit or fitted into an IP 65 weather proof enclosure.

- · Power Generation
- · Cable Trays / Tunnels
- · Road and Rail Tunnels
- Car Parks
- · Conveyors (Bearing) protection
- Storage racks warehouse, Refrigerated rooms and cold stores.

#### **TECHNICAL SPECIFICATION**

#### **ELECTRICAL**

Operating voltage 14 - 30 VDC Two wire mode

20 - 30 VDC Relay mode

**Operating Current** 

Normal Quiescent 1.7 mA Two wire mode 11.5 mA Relay mode

10 4 7

Fire Alarm (max) 12 mA Two wire mode

29 mA Relay mode

Fault Condition 700 uA

**OUTPUTS** 

Fire 2 x VFCO relays, 1 amp

24 VDC / 120 VAC Resistive

Fault 2 x VFCO relays, 1 amp

24 VDC / 120 VAC Resistive 4 - 20 mA signal loop output

LCD 4 Digit (Accuracy ±1 digit,

Tolerance ±3%)

Input Remote Reset

Maximum Length 2,000m

of LHD

**MECHANICAL** 

Dimensions H105 x W86 x D58 mm

(DIN Rail version)

H200 x W164 x D116 mm (Polystyrene enclosure)

Cable Entries 4 x M20, 1 x M25 Top 4 x M20. 1 x M25 Bottom

2 x M20 each side.





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