

Digital LHD Control Module



Shield Digital LHD Control Module (LH-DCM) is designed to enhance the functionality of existing or new Digital LHD systems. The Module is intended to be installed between the Digital LHD cable and a conventional or addressable fire alarm control panel.

The LH-DCM simultaneously monitors two zones of Digital LHD cable (up to 3,000 metres per zone) for an alarm or fault condition. If an overheat or fire situation triggers either zone of the Digital LHD cable, the LH-DCM automatically calculates and displays the distance along the cable, in feet and metres, to the alarm point. The two zones can operate independently of each other or in interlock/coincidence detection mode to eliminate the possibility of false alarms.

An RS-485 Modbus RTU output also allows direct connection into a PLC or other process control system.

Technical Information

Inputs*

Max zone length:	3000m
Min zone length:	1m
End of line resistor:	1k ohm (Included)
Short circuit current:	0.5mA
Max voltage:	5V
Ground fault impedance:	0 ohms

Outputs

Communications:	2 wire RS-485 Modbus RTU/ ASCII
Sounder:	2.4kHz 92dBa@10cm Buzzer
Alarm	2 volt-free relay contacts
Max voltage:	30Vac or 42.4Vdc
Max current:	2A
Max switching power:	60W, 62.5V
Fault	2 x optoisolated photo-transistor output
Max voltage:	35Vdc
Max current:	80mA
Max power dissipation:	150mW

* Upto two Class B zones of Shield Digital LHD Cable

** All circuit power limited if powered from a power limited supply

Features

- Advanced functionality for traditional Digital LHD systems
- Pinpoints exact location of an incident and responds immediately
- Simultaneous monitoring of up to two zones
- Power indicator, fault and alarm lights for each zone
- Volt-free outputs for fault and alarm, corresponding to each zone
- Can be connected to an industrial process control system using the two-wire RS485 Modbus RTU output
- Built-in sounder for audible annunciation
- Interlock/Coincidence detection eliminates the possibility of false alarms by requiring both LHD cables to trigger before transmitting an alarm

Order Codes

LH-DCM	Digital Control Module (2-zone independent/interlock monitoring unit)
LH-1343	LHD Junction/EOL Box Polycarbonate w/5 DIN Rail mounted terminals & 2 cable glands
LH-EOL	Digital One or two zone digital LHD end-of-line box with test facility

Mechanical

Dimensions (HxWxD):	180 x 120 x 60.5 mm
Rating:	NEMA 4, 4X (IP65)
Finish:	Light Gray with clear lid
Display:	2 line, 16 character backlit display showing zone status
Terminal block spacing:	5mm Rising Clamp
Terminal block wire size:	0.08mm ² (28AWG) to 4mm ² (11AWG)

Electrical**

Operating voltage (UL Tested):	14Vdc Min / 24Vdc Nominal / 36Vdc Max
Operating voltage:	12Vdc Min / 24Vdc Nominal / 36Vdc Max
Current cons. (Standby):	<15mA Min / <7mA Nominal / <5mA Max
Current cons. (Alarm):	<40mA Min / <23mA Nominal / <15mA Max
Terminal block rating:	16A
Supervised circuits:	Power, Input Zone 1 & Input Zone 2

Environmental

Operating Temperature:	-20°C to +50°C
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