VLC-800MX

Analogue Addressable LaserCOMPACT

VIGILANT

Features

// *MX* Addressable VESDA detection

// 800m^2 coverage area

// Three (3) alarm levels

// Wide sensitivity range

Description

The Tyco VLC-800MX Addressable LaserCOMPACT smoke detector uses the latest in VESDA sampling technology including a highly efficient laser light source and a dual stage dust filter. The VLC-800MX LaserCOMPACT sensor communicates smoke chamber information to the connected *MX* Control and Indicating Equipment (CIE). The detector evaluates the smoke sensor information against three programmed thresholds and sends an alarm or pre-alarm condition depending on smoke chamber activity. In addition to smoke chamber information, the VLC-800MX LaserCOMPACT also advises the CIE of fault conditions including: dirty filter, airflow restriction or failure.

Operation

A high-efficiency aspirator continually draws air through a simple pipe network to a central detector. Air entering the sensor housing passes a flow sensor before the sample is passed through a dual-stage dust filter. The majority of air is exhausted from the detector and where required, back vented to the protected area. The first stage of the air filter removes dust and dirt from the air sample before it enters the smoke detection chamber. A second, ultra-fine filter stage provides a clean air supply to be used inside the detection chamber to form clean air barriers which protect the optical surfaces from contamination. The detection chamber uses a stable, highly efficient laser light source and unique sensor configuration to achieve optimum response to a wide range of smoke types. When smoke passes through the detection chamber, it creates light scattering which is detected by very sensitive sensor circuitry.

The smoke level is compared against the alarm sensitivity field programmed into the detector and sent to the CIE.

Specifications

Loop Voltage [1]	20V to 40Vdc
Quiescent Current	300µA
External 24V Supply	18 to 28Vdc
Operated Current	245mA
Output Relay [2] (max.)	2A @ 30Vdc
Max. VLC-800MX per Loop [3]	125/250
Wire Size (maximum)	2sq. mm
Ambient Temperature	–10°C to +39°C
Sampled Air Temperature	–20°C to +60°C
Relative Humidity	10% to 95% (non cond.)
Indoor Applications Only	
Coverage Area	800m sq (max.)
Sampling Pipe Length (max.)	80m (<15 holes) 2 x 50m (<9 holes/pipe)
Alarm Sensitivity	0.005 to 20% Obs/m
Ingress Protection	IP30
Dimensions (HWD)	225 x 225 x 85 mm
Weight	1.9kg
Part Number	VLC-800MX [4]

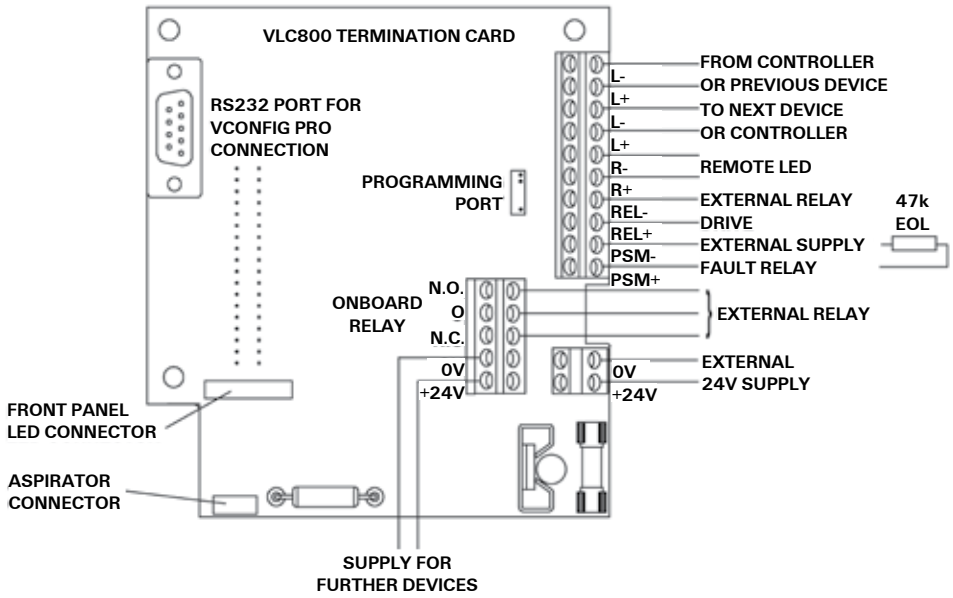
1. Addressable loop voltage provided by *MX* CIE.
2. Relay current is for a resistive load.
3. MX4428/*MX1*. Refer to appropriate manual: LT0273 (MXP), LT0360 (*MX1*-NZ), LT0441 (*MX1*-Au) for design specifications.
4. VESDA pipe and accessories are ordered separately

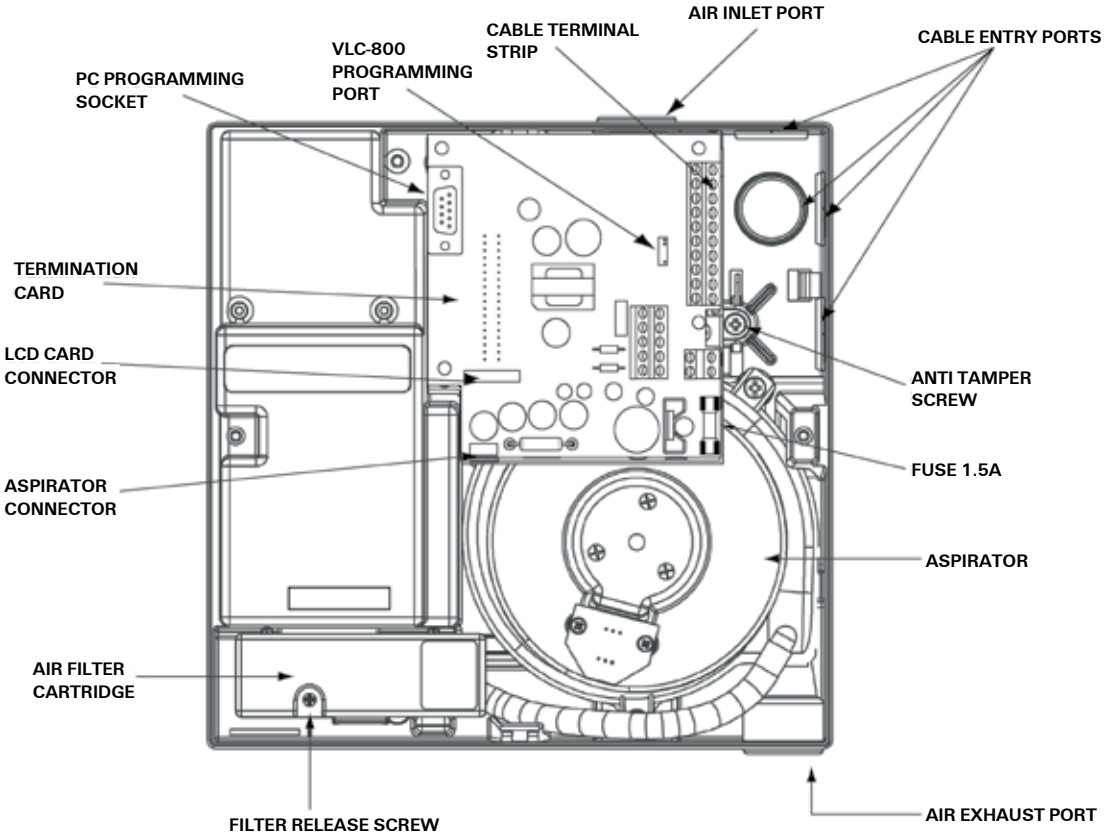
Address Setting

The VLC-800MX is supplied with a default (invalid) address of 255 and must be set to the correct loop address using the 850EMT or 801AP *MX* Service Tool.

Wiring

The VLC-800MX requires an external 24Vdc power supply. If the on-board relay is required, connect to the NO, C and NC terminals. If an external relay is required, connect to REL+ and REL- terminals.





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