

MX TECHNOLOGY

DIM800 Addressable Detector Input Module

INSTALLATION INSTRUCTIONS

DESCRIPTION

The DIM800 Detector Input Module interfaces two collective detector circuits onto the MX addressable loop. Each circuit can support 3mA of detector current and requires a 4k7 Ohm EOL (End Of Line) resistor. The DIM800 requires a suitably rated external 24V supply to power the detector circuits. A switched 24V output is provided to power detectors that have separate power supply terminals. The two circuits are mapped to the same addressable point; either circuit in alarm will put the point into alarm. Unused circuits must be terminated with an EOL.

INSTALLATION

The DIM800 is supplied as an open PCB with mounting hardware and EOL resistor and must be fitted in a suitable enclosure. It may be mounted on a gear plate using plastic standoffs, or to an M520 Ancillary Cover and K2142 back box. The K2142 mounting box provides a convenient surface mounting enclosure and the M520 Cover is designed to accommodate the DIM800.

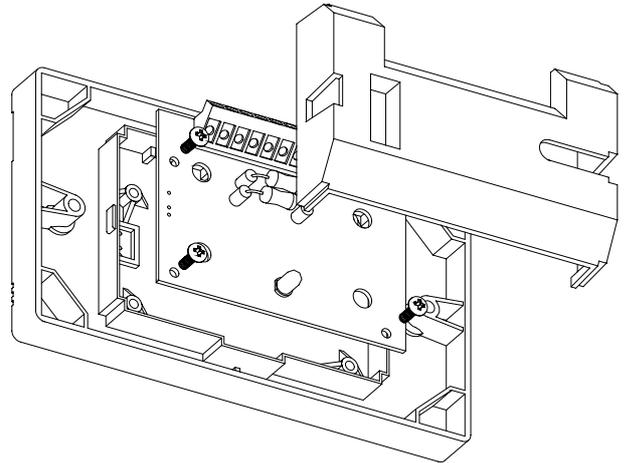
Note that the external supply voltage rating is critical for compatibility with some detectors. This supply may be common to a number of DIM800s but do not connect the circuit wiring to any other circuit or non-isolated equipment.

OPERATION

The LED will operate when an alarm is detected on any circuit and can be programmed to blink when the DIM800 is polled by the CIE. Alarm Verification (AVF) can be programmed at the CIE to assist in reducing false alarms. The switched 24V output is turned off when the DIM800 is reset by the CIE, including a 5 second reset during AVF confirmation. The external supply is supervised by the DIM800 and a fault is generated if the voltage falls below the minimum operating voltage.

ADDRESS SETTING

The DIM800 has a default invalid address of 255 and must be set to the correct loop address using the 801AP MX Service Tool.



M520 Ancillary Cover, DIM800 PCB and cover

SPECIFICATIONS

Mechanical

PCB Dimensions:

Height	61mm
Width	84mm
Depth	25mm

Wire Size (maximum)	2.5mm ²
Part Number	DIM800

Electrical

Loop Voltage ¹	20V to 40VDC
Quiescent Current	100µA
Alarm Current	170µA

Detector Circuit

Detector Load (maximum per input)	3mA
Detector EOL	4k7 Ohm
Switched 24VDC: Output (max)	300mA
Output drop	1.5V@300mA
External Supply ²	18-28.7VDC
Current per Circuit	7.5mA
Alarm Current	30 to 50mA
Max. DIM800 per loop ³	200

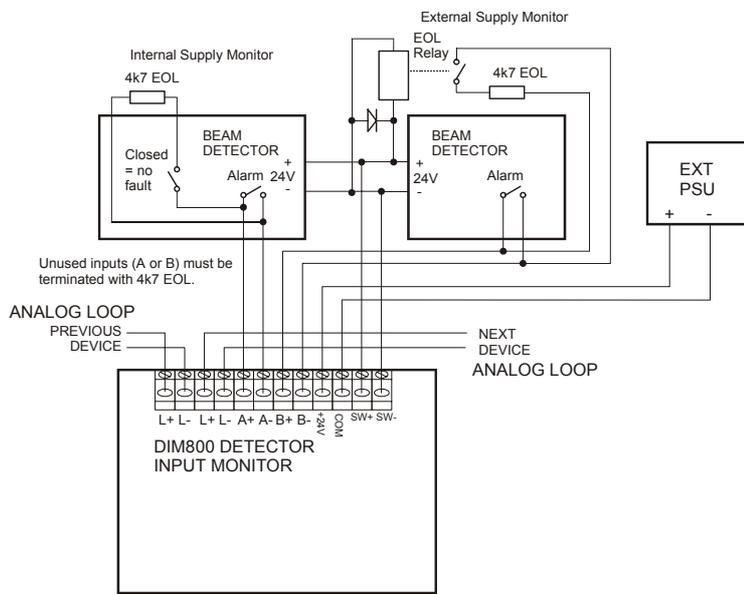
Environmental Indoor Applications only

Operating Temperature	-25°C to +70°C
Storage Temperature	-40°C to +80°C
Relative Humidity (max. non-cond.)	95%

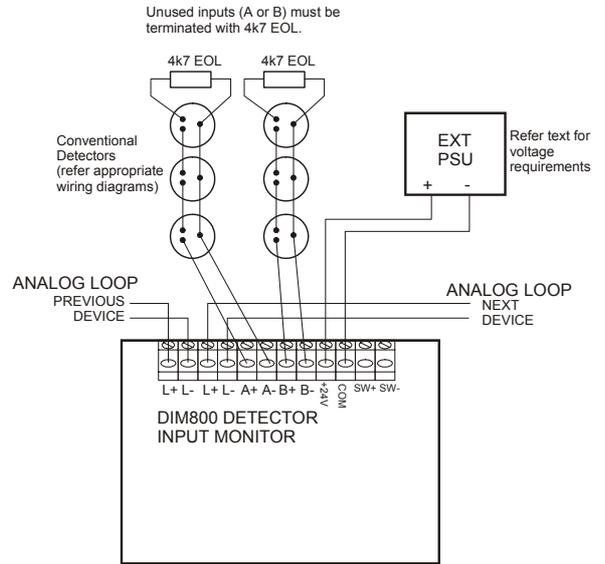
1. Addressable loop voltage provided by Tyco MX4428

2. Refer to table on page 2 for specific detectors

3. Refer to Technical Manual LT0273(MXP), LT0313 (4100MXP), LT0360(MX1) for design limits.



Beam Detector Interface

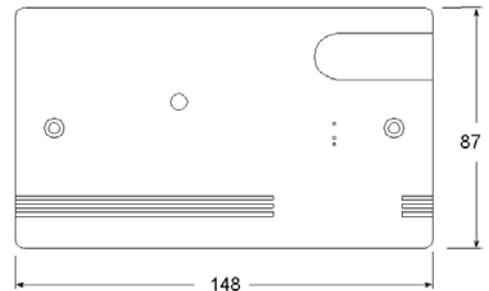


Conventional Detector Interface

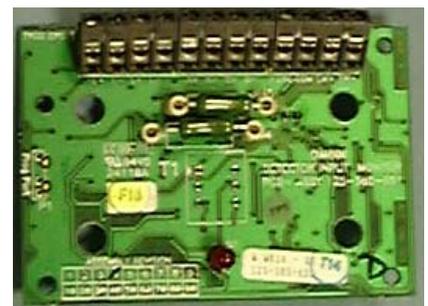
Loop Circuit (4 wire)

Series	Detector	Qty	External Supply Voltage
Minerva	MD614 Heat	40	20.7V-28.7V
	MR614 Photoelectric	30	20.7V-28.7V
	MR614T HPO	26	20.7V-28.7V
	MU614 CO	40	20.7V-28.7V
	MF614 Ionisation	30	20.7V-28.7V
Simplex	4098-9603EA Ionisation	30	18V-28.7V
	4098-9601EA Photoelectric	30	18V-28.7V
	4098-9618EA, 9619EA, 9621EA Heat	30	18V-28.7V
Olsen	P24B Photoelectric	30	20.7V-24.7V
	P29B Photoelectric	25	20.7V-26.7V
	C24B Ionisation	40	20.7V-26.7V
	C29BEx Ionisation	40	20.7V-26.7V
	R23B Flame	23	20.7V-24.7V
	R24B Flame	4	22.7V-24.7V
	DO1101 Photoelectric	18	22.7V-27.7V
	DLO1191 Beam	1	22.7V-28.7V
	T56B Heat	40	18V-28.7V
Hard Contact Devices	40	18V-28.7V	

DIM800 Detector Compatibility



M520 Ancillary Cover



DIM800 PCB



www.tycosafetyproducts-anz.com

Telephone (+61 3) 9538 7220 Facsimile (+61 3) 9538 7255

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