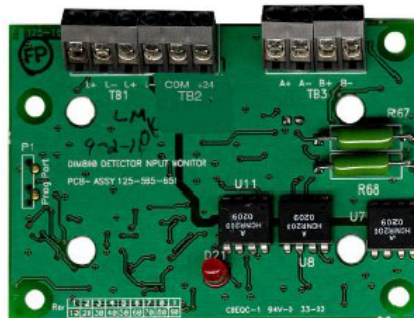


## Description

The DIM800 Addressable Detector Input Module interfaces two conventional detector circuits onto the *MX* addressable loop. Each circuit can support 3mA of detector quiescent 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. On the MX4428 Control and Indicating Equipment (CIE) the two circuits are treated as a single addressable point; either circuit in alarm will put the point into alarm. Unused circuits must be terminated with an EOL.

**Figure 1: DIM800**



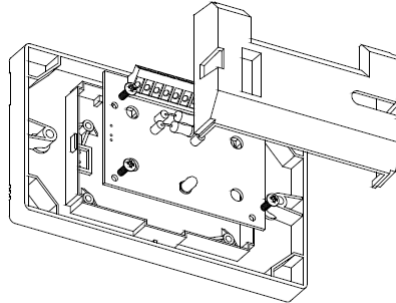
## Features

- Compatible with *MX* Addressable Loop on SIMPLEX 4100ESi, VIGILANT *MX1* and VIGILANT MX4428 panels
- Interface up to 2 circuits of conventional detectors
- Requires external 24Vdc supply
- Common *MX* module footprint
- AS ISO 7240.18 Listing Input/Output Modules

## Mounting

The DIM800 is supplied as an open circuit board (PCB) with mounting hardware and EOL resistors and must be fitted in a suitable enclosure. It may be mounted on a gear plate using plastic standoffs, to an M520 Ancillary Cover and K2142 back box, or into a D800 Ancillary Housing. The K2142 mounting box provides a convenient surface mounting enclosure and the M520 Cover is designed to accommodate the DIM800.

**Figure 2: DIM800 fitted to M520 cover**



M520 Ancillary Cover, DIM800 PCB and cover

## Power supply

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

## Address Setting

The DIM800 is shipped with a default (invalid) address of 255 and must be set to the correct loop address using the 850EMT or *MX* Service Tool and programming lead.

# Specifications

**Table 1: Specifications**

Item	Description
Loop Voltage <sup>1</sup>	20 V to 40 Vdc
Quiescent Current	280 $\mu$ A
Alarm State Current	280 $\mu$ A
Detector Load	3 mA (max. per input)
Detector EOL	4k7 Ohm
External Supply <sup>2</sup>	18 to 28.7 Vdc
Current per Circuit	7.5 mA
Alarm Current	30 to 50 mA
Max. DIM800 per Loop <sup>3</sup>	200/250
Ambient Temperature	-25°C to +70°C
Storage Temperature	-40°C to +80°C
Relative Humidity <i>Indoor Applications Only</i>	10% to 95% (non cond.)
Dimensions (HWD)	61 x 84 x 25 mm
Wire Size (maximum)	2.5sq. mm
ActivFire Listing	afp-3179
FPANZ Listing	VF/643
Standards	AS ISO 7240.18:2018

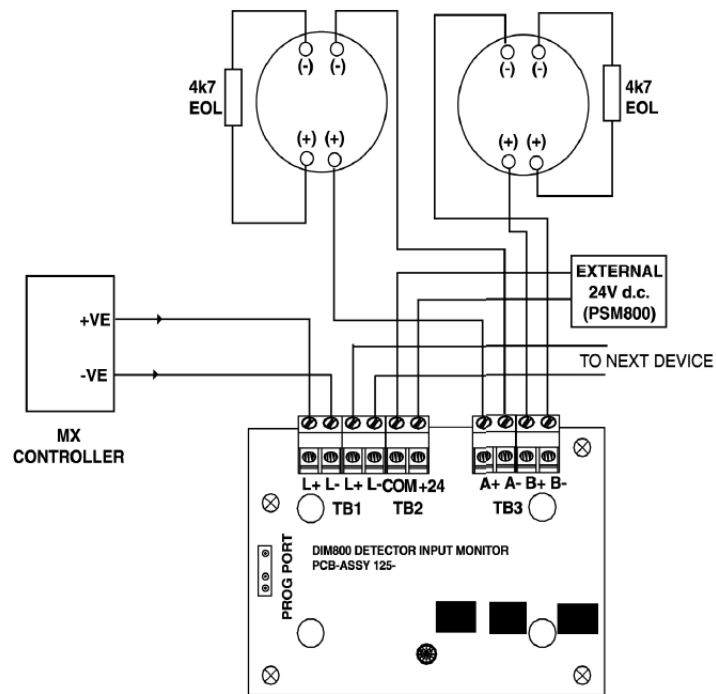
**Table 2: Part numbers**

Part number	Description
555.800.042	DIM800 Detector Input Module
517.035.007	M520 Ancillary Cover
517.035.010	K2142 Back Box
547.004.002	DIN Rail Mounting Brkt
557.201.401	D800 Ancillary Housing

Callout	Description
1	Addressable loop voltage provided by MX CIE
2	Refer to <a href="#">DIM800 Detector Compatibility</a> for specific detectors
3	MX4428/MX1. Refer to appropriate manual: LT0273 (MXP), LT0360 (MX1-NZ), LT0441 (MX1-Au) for design specifications

# Wiring

Figure 3: Class B spur circuit



**Note:**

- If you use one spur circuit, you must terminate the other circuit by 4k7 EOL.
- If you use two spur circuits, then they must cover the same zone.

# DIM800 Detector Compatibility

**Table 3: DIM800 detector compatibility**

Series	Detector	Qty	Ext. Supply Voltage
<b>Tyco</b>	614P Photoelectric	25	20.0 V-28.7 V
	614I Ionisation	38	20.0 V-28.7 V
	614CH CO/Heat	32	20.0 V-28.7 V
	614T Heat	23	20.0 V-28.7 V
	601FEx* Flame	4	20.0 V-28.7 V
	S231f+ IR Flame	7	21.0 V-28.7 V
	FV411f IR Flame Det	3	23.0 V-28.7 V
	FV412f IR Flame Det	3	23.0 V-28.7 V
	FV413f IR Flame Det	3	23.0 V-28.7 V
<b>Minerva</b>	MD614 Heat	40	20.7 V-28.7 V
	MR614 Photoelectric	22	20.7 V-28.7 V
	MR614T HPO	21	20.7 V-28.7 V
	MU614 CO	40	20.7 V-28.7 V
	MF614 Ionisation	30	20.7 V-28.7 V
	T614 Heat	23	20.7 V-28.7 V
<b>Simplex</b>	4098-9603EA Ion	24	18.0 V-28.7 V
	4098-9601EA Photo	24	18.0 V-28.7 V
	4098-9618EA Heat	24	18.0 V-28.7 V
	4098-9619EA Heat	24	18.0 V-28.7 V
	4098-9621EA Heat	24	18.0 V-28.7 V
<b>Olsen</b>	P24B Photoelectric	24	20.7 V-24.7 V
	P29B Photoelectric	20	20.7 V-26.7 V
	C24B Ionisation	40	20.7 V-26.7 V
	C29B Ionisation	40	20.7 V-26.7 V
	R23B Flame	0	20.7 V-24.7 V
	R24B Flame	3	22.7 V-24.7 V
	DO1101 Photoelectric	16	22.7 V-27.7 V
	DLO1191 Beam	1	22.7 V-28.7 V
	P136 DSU	5	19.0 V-28.7 V
	T56B Heat	40	18.0 V-28.7 V
	FW81B	1 km	18.0 V-28.7 V
	Hard Contact Devices	40	18.0 V-28.7 V
<b>System Sensor</b>	885WP-B	40	20.0V-28.7V

Hard contact devices must be rated for at least 30V and currents up to 50 mA.

\* Although detector is Ex rated, this is a direct connection without I.S. barrier.

# Contact information

## **Australia**

Level 3, 37 Dalmore Drive, Scoresby, Vic, 3179

Tel: 1300 725 688

Email: [fdp.customerservice.anz@jci.com](mailto:fdp.customerservice.anz@jci.com)

## **New Zealand**

10 Mary Muller Drive, Hillsborough, Christchurch, NZ, 8022

Tel: +64 9 635 0617

Email: [fdp.customerservice.anz@jci.com](mailto:fdp.customerservice.anz@jci.com)

VIGILANT, a respected regional brand of Johnson Controls, is a technology leader in the Australian and New Zealand fire detection markets with AS and NZS product approvals. The VIGILANT product line includes a comprehensive range of MX TECHNOLOGY fire detection products and the market-leading QE20/QE90 voice evacuation systems. VIGILANT product is widely supported throughout Australia and New Zealand by a network of installation companies, service companies and distributors.