

# CM104 - 8/16 LAN ZONE EXPANDER

The CM104 allows you to expand the hard wired zone capacity of selected Solution control panels.

Each CM104 installed will add 8 or 16 zones to the system depending on if single or split EOL monitoring has been enabled. Table 1 below lists the panels which are compatible with the CM104 as well as the maximum number of expanders that can be supported on each one.

The CM104 is supplied as a PCB module and can be installed in the same cabinet as the main panel or remotely from the panel via the 4 wire LAN or BUS connection. The CM104 requires only one module space in the enclosure.

Sensors connected to the zone expander can be powered from the Solution panel,(1) or from an external power supply like the CM120 power supply.(2) The zone power jumper on the CM104 must be set to EXT when using an external supply.

A dedicated tamper input and service keypad input is also provided.

The CM104 includes a 3 way dip switch which is used to select the zone expander's address or node number. See Switch 1 labelled ADDRESS in the wiring diagram on the following page.

When only one CM104 is installed, then the three DIP switches should be left in the OFF or default position. To assist with installation, the CM104 includes indicators to show LAN and Zone Power status at all times.

## Programming Considerations

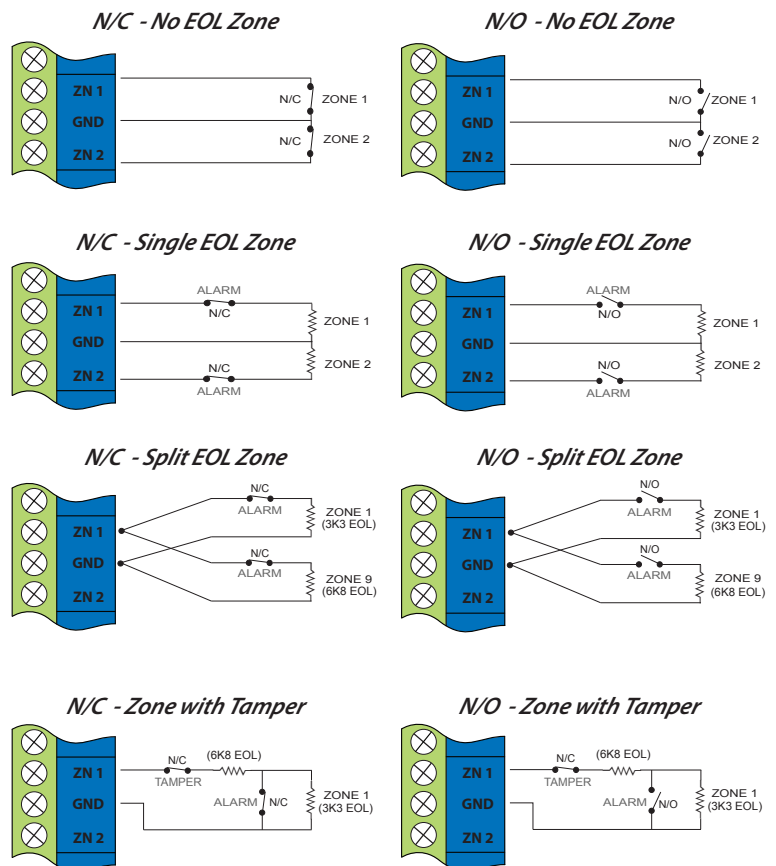
1) The CM104 expander does not need to be enabled via panel programming. The panel will recognise it after a power cycle.

2) The EOL resistor value selected in the panel programming is global for all zones in the system including zones on expanders.

3) Some Zones are defaulted as Not Used. These must be programmed as valid zone types before they become active.

4) When using a normally open device, you will need to program the Inverted Seal option for each N/O zone.

## ZONE WIRING OPTIONS



2K2 + 6K8 and 10K + 10K EOL Resistor Values options can also be selected for Alarm and Tamper Monitoring.

## Module Address Switches and Zone Numbering

Each CM104 fitted the the panel must be set to a unique address using the onboard address switches.

| Solution16plus                                           |     |     |     |                             |                           |
|----------------------------------------------------------|-----|-----|-----|-----------------------------|---------------------------|
| Address Number                                           | SW1 | SW2 | SW3 | Zones Numbered (Single EOL) | Zones Numbered (Dual EOL) |
| Address 1 =                                              | OFF | OFF | OFF | 9 to 16                     | N/A                       |
| Only 1 x CM104 can be fitted to the Solution16plus panel |     |     |     |                             |                           |

| Solution 64 Panel                                                                                                                         |     |     |     |                             |                           |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----------------------------|---------------------------|
| Address Number                                                                                                                            | SW1 | SW2 | SW3 | Zones Numbered (Single EOL) | Zones Numbered (Dual EOL) |
| Address 1 =                                                                                                                               | OFF | OFF | OFF | 17 to 24                    | 17 to 32                  |
| Address 2 =                                                                                                                               | ON  | OFF | OFF | 25 to 32                    | 33 to 48                  |
| Address 3 =                                                                                                                               | OFF | ON  | OFF | 33 to 40                    | 49 to 64                  |
| Up to 3 x CM104 modules can be fitted to the Solution 64 panels running Version 1.10 firmware or higher. Firmware upgrades are available. |     |     |     |                             |                           |

Table 1: CM104 Configuration Options

(1): Provided the maximum available LAN current is not exceeded.

(2): The CM120 is a LAN Monitored 1 amp Switch Mode Power Supply with Pulse Battery Charger.

## CM104 Connection Diagram

Expander earthing point. Either of these two points must be connected to mains earth for maximum lightning protection.

Used to power sensors etc. Set shunt to select LAN power or external power supply.

Power Output Terminals. Used to power sensors etc. Set shunt to select LAN power or external power supply.

External 12-14V D.C. Power Supply Input. Internally current limited to 1Amp

Expander zones power select jumper. Fit the shunt between the centre pin and LAN pin when using LAN power or fit the shunt between the centre pin and EXT when using an external power supply.

**NOTE:**  
The maximum continuous current drawn from the (+12V) power output terminals should not exceed 500mA when being powered from the LAN.

Expander Status LED flashes to indicate that the Expander is functioning correctly and communicating with the panel. If the light is on steady it means that the module is not communicating with the panel.

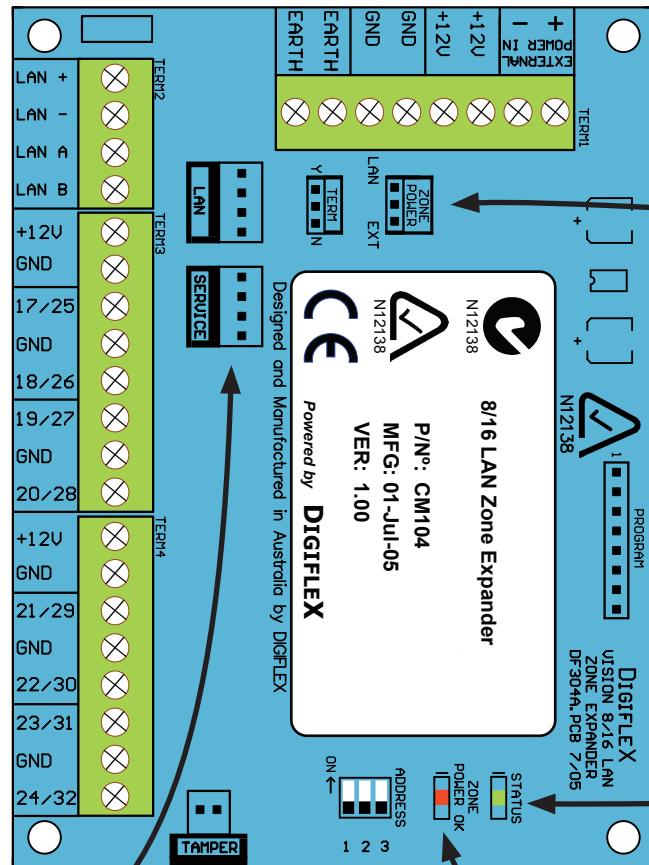
Zone Power LED lights to show that Zone power is present on terminals and not overloaded.

Expander board Address Select Switch is not used when CM104 is connected to Solution 16plus panels. All 3 switches must be left in the off position when used with the Solution 16plus.



### Note

You must power cycle the panel after connecting the CM104 for the system to initialise the expander.



Connection point for service keypad.

Tamper Connection Shunt if not required.

## CM104 Specifications

**Part Number:** CM104 - 8/16 Zone Expander

**Operating Voltage:** 10.5V D.C. - 14.0V D.C. @ 100mA Max

**Module Connection:** LAN BUS. Length, 305M of 14/0.20 0.8mm<sup>2</sup> (22 AWG) cable

**Operating Environment:** 0° to 55°C RH 5 to 85% at 30°C non-condensing.

**Fixing Method:** The CM104 can be mounted in either the MW700 or MW710 enclosures using clip in PCB mounts - supplied.

**Warranty:** 3 years from date of manufacture (return to base)



**BOSCH**

### BOSCH SECURITY SYSTEMS

25 Huntingwood Drive  
Huntingwood NSW 2148  
Australia  
Ph: +612 9672 1777  
Fx: +612 9672 1717  
www.boschsecurity.com.au



In the interest of ongoing product development this document is subject to change without notice.