

Introduction

The **4B-C Continuity base** is used for most installations involving 850 Series detectors, as it allows the detector's in-built short circuit isolation function to be in-circuit when the detector is fitted and ensures continuity is maintained when the detector is removed. The **4B-I Short Circuit Isolator base** is used to protect circuits that use devices that do not have built-in short- circuit isolation. The **4B Universal base** is used when neither short circuit isolator nor continuity functionality is required. All 4-inch bases are compatible with the Ceiling Tile Adaptor that can potentially decrease installation time by up to 30%.

Features

- Continuity, Isolator and Universal variants
- · Quick and easy to install
- Compatible with 800, 814, and 850 Series detectors
- · Park position for testing
- Optional detector locking device
- · Slim 4-inch profile
- Snap-fit to Ceiling Tile Adaptor
- AS ISO 7240.17 Listing Short Circuit MX Loop Isolator

Figure 1: Detector base



Callout	Description
1	Continuity spring-loaded contact - 4B-C only
2	Detector locking device
3	LED aperture - 4B-I only
4	LED aperture plug
5	Temporary park plunger
6	Rib
7	Detector locking device aperture

Specifications

Table 1: Specifications

Item	Description	
Supply Voltage	20 to 40 Vdc MXLoop	
Supply Current	80 μA typ. (quiescent 4B-I)	
Tripped Current	3.5 mA (max. 4B-I)	
Dimensions (H x Dia)	25 x 109 mm	
Weight	64 g	
Colour	Flame Retardant ABS White (optional Pantone colours for detector covers and 4B-C bases)	
Ambient Temperature	−25 °C to +70 °C	
Storage Temperature	-40 °C to +80 °C	
Relative Humidity Indoor Applications Only	10% to 95% (non cond.)	
ActivFire Listed	afp-3176	
FPANZ Listed	VF/672	
Standards	AS ISO 7240.17:2021	

Table 2: Part numbers

Part number	Description
517.50.41	4B Universal Base
517.50.42	4B-C Continuity Base
517.50.43	4B-I Isolator Base
517.50.51	4B Deckhead Mount
517.50.52	EuroMount Adaptor

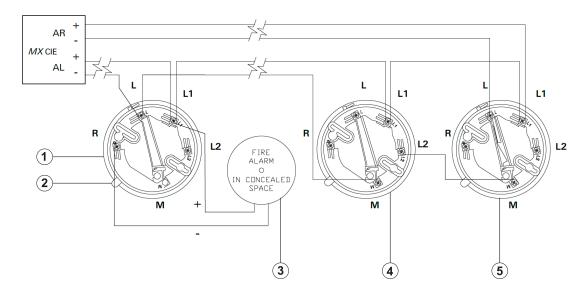
Fixing

The 4B detector bases are designed to snap-fit to the Ceiling Tile Adaptor. Alternatively they can be screw fixed to a ceiling, electrical box, or deckhead mount in the traditional manner. A park position allows the detector to be mechanically attached to the base without making electrical connection to facilitate the testing of electronic-free bases.

The base should be fixed such that the park plunger faces toward the door or trafficable area. This ensures that the detector LED is visible from the direction of entry, in accordance with AS1670.1.

With a detector mounted in the base, a raised rib on both the base and detector align when the detector is in the fully home position.

Figure 2: Typical Wiring for MX1 Addressable systems using the 4B-C Continuity base



Callout	Description
1	4B universal base
2	Park plunger
3	E500 Mk2 remote indicator
4	4B-I isolator base
5	4B-C continuity base

(i) **Note:** The *MX* CIE can be programmed to illuminate a Remote Indicator for detectors in alarm other than the detector base to which the Indicator is connected. Note: an SX0005 ferrite is required on 850PC remote indicator wiring. Run one loop of wire through the ferrite, placed within 20cm of the detector base.

Wiring

Cables should be arranged at each side of the terminal screw. A maximum of two 1.5 mm2 cables or one 2.5 mm2 cable can be fitted to one terminal. Any additional cables (such as Remote Indicator) should be fitted with suitable fork or eyelet crimp terminal lugs. The installation should comply with AS 1670.1 or NZS 4512.

Table 3: Wiring

4B Loop Cabling	4B-I Loop Cabling	4B-C Loop Cabling
L (-In/Out) L1 (+In/Out).	L2 (-In) M (-Out) L1 (+In/Out).	L (-In) M (-Out) L1 (+In/Out).
A remote indicator may be	1	A remote indicator may be
connected between loop	connected between loop	connected between loop
positive L1 (+In/Out) and	positive L1 (+In/Out) and	positive L1 (+In/Out) and
terminal R (-ve). Terminal L2		terminal R (-ve). Terminal L2
must not be used.	must not be used.	must not be used.

Detector lock

The detector locking device is part of the base moulding. If required, it is detached and inserted into the locking aperture. A detector mounted in the base is now locked in position. The detector can then be removed only after inserting an unlocking tool into the hole on the detector cover to depress the spring tab on the locking device. A 3 mm rod could be a suitable unlocking tool; one can be fabricated by grinding a screwdriver with a 3mm diameter shaft to a length of 22 mm.

Figure 3: Locking device



LED aperture plug

Bases with an isolating function have an LED fitted. Bases without an isolator have an empty aperture, which may be filled using a plug detached from the base moulding.

Maintenance and service

The VIGILANT *MX* addressable system should be maintained in accordance with the relevant parts of AS 1851 or NZS 4512. The VIGILANT X300 Smoke Tester, X461 Heat Tester and CO test gas (part no. 517.001.262) may be used for testing the detector in-situ. Rotating the detector anticlockwise past an indent to the park position disconnects the detector from the circuit whilst still retaining it in the base, allowing loop testing etc. Depressing the plunger at the side of the base allows the detector to be rotated back into its operating position.

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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.

