

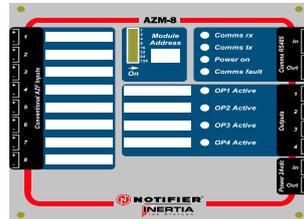
NOTIFIER TECH TIP

AFP2800

“AZM8 Module – Replacement”

V1.1

The AZM8 Field Module that utilises Ring 1 of the AFP2800 has been discontinued for some time. Support stock of AZM8 modules is now exhausted and these are **NO LONGER AVAILABLE**. Please consider options for your customers who utilise these devices.



The recommended alternative is to use addressable loop based detectors and modules.

As the AZM8 was a multi I/O device with (8) inputs & (4) outputs, assess utilisation of the AZM8, to determine what hardware is required. Suitable modules may be:

Inputs

FZM-1 or XP6-MA addressable conventional zone modules
FMM-101, FMM-1, FDM-1 or XP10-M addressable monitor modules

Outputs

FRM-1 or XP6-R addressable relay modules
XR relays if the module is mounted within an AFP2800

Multi I/O

FDMR-1 dual input/output addressable modules

CONSIDERATIONS

- The AZM8 has a total of (8) inputs

If these inputs are being used as latching conventional zones

XP6-MA six input or FZM-1 single input addressable conventional zone modules may be used, or a combination of both, if the AZM8 inputs are fully utilised. Determine the type and number of devices present on each circuit as the type/number of devices per circuit on addressable modules may differ.

If these inputs are being used as non-latching conventional zones (duct supply air detectors)

These will need to be upgraded to addressable loop detectors. This is because FZM-1 & XP6-MA addressable conventional zone modules will always “latch” irrespective of the settings in programming.

If these inputs are being used as alarming / non-alarming general purpose inputs

XP10-M ten input or FMM-101, FMM-1, FDM-1, FDMR-1 single & dual input modules could be used.

- The AZM8 inputs utilise 4.7K ohm EOL (end of line) monitoring, so EOL resistors may need to be located & replaced

XP6-MA & FZM-1 modules use 3.9K ohm EOL monitoring.

XP10-M, FMM-101, FMM-1, FDM-1 & FDMR-1 modules use 47K ohm EOL monitoring

- The AZM8 has a total of (4) NO (normally open) dry contact outputs

XP6-R, FRM-1, FDMR-1 and AFP2800 XR relays may all be utilised as alternatives. AFP2800 XR relays are only suitable where the AZM-8 was mounted within the panel enclosure as these cannot be extended out into the field.

PLANNING AND OPTIONS

Where AZM8's are in extensive use you may wish to consider:

If an AZM8 device fails in the field, where other AZM8 are installed locally within an AFP2800 enclosure or immediately adjacent, consider upgrading these "local" AZM8 to addressable devices, releasing the upgraded "local" AZM-8 to be utilised in the field.

Similarly, consider a staged upgrade plan, where a batch of AZM8 is transitioned across to addressable loop based hardware rather than a complete site upgrade. This "releases" the de-commissioned AZM8's to be used as spares to support the remaining units still in operation, allowing for a managed upgrade path.

Type, fire rating and routing of cabling are important considerations, particularly where these modules have been installed as part of AS1668 fan control requirements.

Cabling to AZM8 modules was required to be screened cabling for "ring" communications, although this type of cable can be used for addressable loop cabling, it has limitations. Where re-use of existing cabling is being considered, check the extract of the addressable loop cabling requirements from the AFP-2800 manual, included with this document.

For further details please contact Technical Support at the following offices:

Sydney	NSW/ACT	02 9899 4155
Brisbane	QLD	07 3391 5777
Adelaide	SA	08 8346 3331
Melbourne	VIC/TAS	03 9421 5552
Perth	WA/NT	08 9270 6555

Further Tech Tips and other valuable information can be found in the "Download Centre" located at www.notifier.com.au

ADDRESSABLE LOOP CABLING

Applies to: Signalling Line Circuit (SLC) loops.

Requirements:

Recommended Cable	<ul style="list-style-type: none"> ▪ TWISTED pair, NOT shielded. The cable should have short overall twist lengths (8 or more twists per metre).
Max distance	<p>Recommended cable type (unshielded):</p> <ul style="list-style-type: none"> ▪ *3810 m using 3.25 mm² Twisted-unshielded pair ▪ *3000 m using 2.5 mm² Twisted-unshielded pair ▪ *2000 m using 1.5 mm² Twisted-unshielded pair ▪ *1000 m using 0.75 mm² Twisted-unshielded pair <p>Others:</p> <ul style="list-style-type: none"> ▪ 1000 m using 0.75 mm², 1500 m using 1.5 to 3.25 mm² Twisted-shielded pair ▪ 1000 m using 0.75 mm², 1500 m using 1.5 to 3.25 mm² Untwisted-unshielded cable
Maximum Current	<ul style="list-style-type: none"> ▪ 130 mA: LCM-320 ▪ 100 mA: LEM-320 ▪ 400 mA max**: Single SLC loop
Maximum resistance	<ul style="list-style-type: none"> ▪ Maximum 50 ohms (supervised and power-limited). <p>For more information on installation checks, refer to section Error! Reference source not found. Error! Reference source not found.</p>
Maximum Capacitance	<ul style="list-style-type: none"> ▪ Maximum total capacitance for all SLC wiring (both between conductors and from any conductor to ground) should not exceed 0.5 microfarads
Notes:	<ul style="list-style-type: none"> ▪ Usage of shielded or flat cable for the SLC loops is not recommended and should be avoided where possible. ▪ Fire rated cables may be required as per AS1670, AS1668, and AS2118. ▪ Separate 2 core cable to be run for 24VDC power to FZM-1 and FCM-1 modules

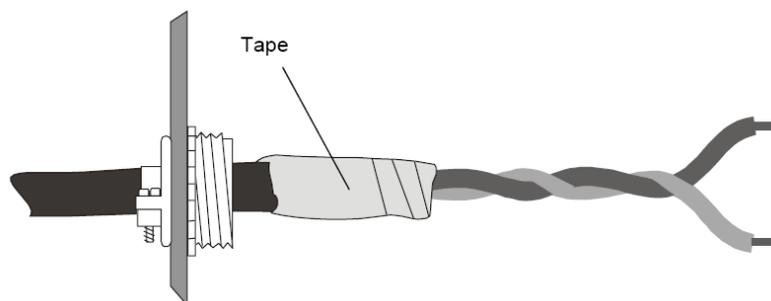
*Max distance of the loop is governed by the total loop resistance and will depend on the type of cable used. Always check the cable specification to ensure the total loop resistance will be less than **50 ohms** for the required length of cable. A higher resistance than 50 ohms will result in communication problems on the addressable loop.

**Max short circuit...circuit will shut down until short circuit condition is corrected.

Floating Shield

Twisted-**unshielded** wire is recommended. If twisted-shielded pair wire is installed, use a floating shield to terminate the wire. The following precautions must be met:

- If the SLC is more than 900 m, divide the shield into floating segments of less than 300 m.
- To divide the shield wire into floating segments, cut shield even with jacket and tape as shown:



NOTE: Using shielded wire in applications where it is not recommended will reduce the maximum SLC length. If shielded wire must be used where not recommended, failing to float the ends will reduce the maximum SLC length even further.