

Cautions



ELECTRICAL HAZARD: Disconnect power from equipment prior to making any internal adjustments. Service should only be performed by qualified personnel.

FRAGILE: Inspect the equipment prior to installation. Do not install the equipment if damage is apparent. Do not attempt to disassemble this equipment. If damaged, return to the supplier.

ELECTROSTATIC HAZARD: This is sensitive electronic equipment. Apply safe ant-static practices when handling this equipment.

CIRCUIT LIMITATIONS: The maximum number of devices connected to a single alarm zone is limited by the control and indicating equipment, and may be limited by local regulations.

Introduction

The 680 loop isolator provides electrical isolation of alarm zone wiring for addressable fire detection control and indicating equipment. The use of the 680 as part of the detector zone wiring ensures that short-circuit faults in the alarm zone loop wiring disable a minimum number of detectors.

These instructions provide trained installation personnel with details to install and commission 680 loop isolators for optimum performance.

Preparation

Before commencing installation, ensure all equipment (base and detector) and tools to mount and connect the equipment are available, such as drills, mounting screws, cables and ladders.

680 loop isolators can be installed with addressable devices compatible with Numens control and indicating equipment.

680 loop isolators are installed with the following base.

Description	Part number	Datasheet
4-terminal 99 mm low profile base	487-005	31-0117

Installation

Base

The base can be mounted directly onto an electrical junction box such as an octagonal (75 mm, 90 mm or 100 mm), a round (75 mm), or a square (100 mm) box without using any type of mechanical adapter.

1. Feed the conductors through the middle of the base for termination to the base contacts.
2. Mount the base on the junction box or directly onto a flat surface.
3. Mount the base to the surface using fixing screws that are suitable to securely fix the base to the surface.

Wiring

The terminals accept (0.4 ~ 2.5) mm² conductors.

1. Strip the conductor insulation to expose 5 mm of the conductor.
2. Connect the conductors to the base terminals as shown in Fig. 1.



WARNING: Take care to ensure the insulation does not get clamped by the terminal contact.

3. Check the wiring for continuity, short circuits and earth faults.

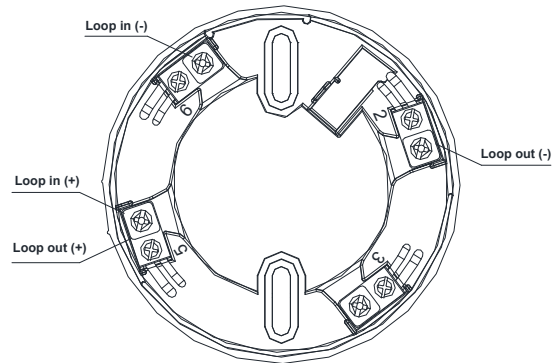


Fig. 1: Loop isolator wiring connections

Isolator

1. Align the loop isolator alignment mark with the short alignment mark in the base, as shown in Fig. 2.
2. Mate the isolator onto the base and rotate it clockwise to secure it. The long alignment marks should be aligned.

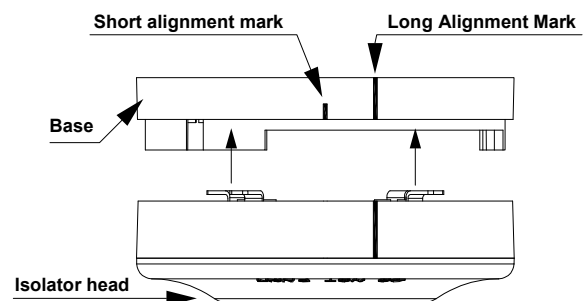


Fig. 2: Fitting the isolator to the base

Commissioning

Loop Isolator

1. Apply a short circuit to the Loop Out wiring.
2. Check that the yellow Isolator LED is on.
3. Check that the status of devices connected to the Loop In side of the alarm zone wiring remains unchanged at the control and indicating equipment.
4. Remove the short circuit.
5. Check that the yellow Isolator LED is off.
6. Check that devices connected to the Loop Out side of the alarm zone return to their previous conditions at the control and indicating equipment.

Final Conditions

Ensure all the alarm signal services, releasing devices and extinguisher systems disabled for the commissioning are returned to their previous condition.

References

Document	Description
31-0033	680 loop isolator datasheet

View the complete range of products at www.numens.com

