

features

- Easy plug-in type connection
- RS232 and RS485 options
- Hi-485 High-integrity option for critical applications
- Compatible with ZX series intelligent multi protocol fire alarm control panels
- Class-A or Class-B networking capability
- Peripheral bus for remote I/O devices (RS485)
- Leased line modem link (RS232)
- Third-party graphic front-end interfacing

The serial communication modules are plug-in expansion modules for use in the ZX series intelligent multi-protocol fire alarm control panels. These optional modules add optically isolated communication ports to the ZX series control panels to allow serial communications for networking and peripherals. Two types of serial communication protocols are available with the ZX series control panels:-

- RS485 Communication protocol
- RS232 Communication protocol

The RS485 communication module supports two-wire RS485 multi-drop transmission between networked ZXa/ZX2e/ZXe/ZX5e control panels, between ZX series control panels and repeaters or between ZX series control panels and serial peripheral devices. Using a shielded twisted-pair cable with a cross sectional area of minimum 0.5 mm² (24 AWG), the RS485 module will support cable/bus lengths of 1,200 meters (3937 ft) per channel.

When used to drive a peripheral bus the RS485 module can support remote I/O devices such as:

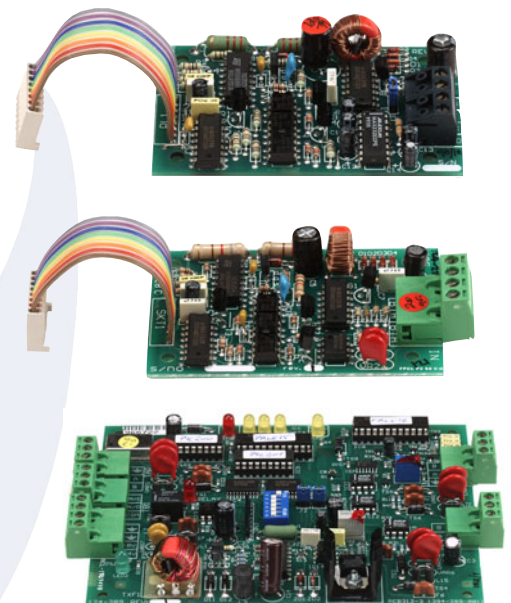
- Active and passive repeaters
- External printers
- 4-way programmable relay and sounder cards
- 8-way input cards
- 40-way mimic driver cards
- Modbus and pager interface modules

The RS485 communication module can also be used in conjunction with the Hi-485 conversion module for systems requiring a "High Integrity" loop for network communications. The Hi-485 nodes are able to detect and isolate transmission line faults such as short and open circuits on the network wiring.



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Communication Modules Data Sheet

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The Hi-485 modules also act as signal repeaters/boosters, which enable "High Integrity" loops of up to 12 km (39,370 ft) to be constructed.

The RS232 communication module supports a single point-to-point communication between ZX series panels. The panels can also be installed remotely if a suitable modem and leased or private line are used. The RS232 module also supports a single point-to-point transmission between a ZXa/ZX2e/ZXe/ZX5e control panel and graphic front end.

When used in an ZXe/ZX5e control panel, the RS232 module can also be used as a communication interface to the pager interface. This option is not available with a ZX1/ZX1e/ZXa/ZX2e panel.

The AUTO-LEARN facility provided in the ZX series control panels saves considerable time and effort when installing new plug-in modules and peripheral devices or when changing system configuration. It allows the system to learn itself what modules and peripheral devices have been installed on the panel.

mechanical

Dimensions (HxWxD):

RS232 Module	90 x 54 x 25 mm
RS485 Module	90 x 54 x 25 mm
Hi-485 Module	112 x 145 x 22 mm

Weight:

RS232 & RS485 Modules:	35 gr. (1 oz)
Hi-485 Module:	150 gr. (5 oz)

Operating temperature: 0°C to 49°C

Relative humidity: 10% to 93% non-condensing

electrical

Operating voltage: 18 to 28 Vdc (derived from the panel)

Current consumption (typical at 24Vdc):

RS232 Module:	59 mA
RS485 Module:	25 mA
Hi-485 Module:	40 mA (typical) 100 mA (fault condition)

NOte - These current consumption figures must be added to the basic current consumption of the panel when calculating stand-by battery requirements.

Port terminals: Removable terminal block with maximum cable cross sectional area of 2.5mm² (13 AWG).

Wiring:

RS485 Module: Maximum network wiring length: 1,200m (3937 ft)

Maximum high integrity loop length: 12Km (39,370 ft)

Maximum peripheral bus length: 1,200m (3937 ft)

Note - 150 Ohm end-of-line resistors are required at both ends of the RS485 circuit.

Recommended cable:

Belden 8760 and 8719 or equivalent twisted shielded pair. For high integrity installations suitable twisted pair fire-resisting cables are: Calflam and FireTwist or equivalent.

RS232 Module:

Using a shielded twisted pair cable with a cross sectional area of 0.5mm² (24 AWG) the interface will support communications over distances of up to 15.2 meters (50 ft).

approvals



part numbers

EN54

795-005	RS232 Communication Module
795-004-001	RS485 Communication Module
795-038-001	Hi-485 Conversion Module

UL listed

794-005	RS232 Communication Module
794-004	RS485 Communication Module