Modbus Interface

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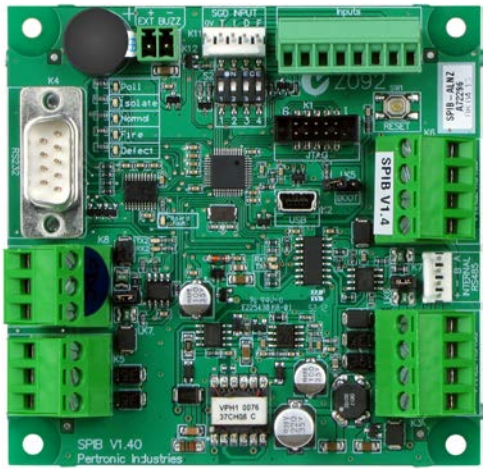
Connects analogue addressable fire alarm panel with Modbus device
Supports Modbus ASCII, RTU, or TCP (with adapter)
PC configurable via USB cable

Product Overview:

The **Pertronic Modbus Interface** allows bi-directional communication between a **Pertronic F120A** analogue addressable fire alarm control panel and one or more Modbus master devices.



Pertronic Modbus Interface

The **Modbus Interface** monitors the fire alarm control panel's **RS485 Mimic Bus** and stores a copy of the panel's current event queue data in a Modbus-compatible format. This includes all data that is accessible from the panel's LCD display.

External devices are able to communicate with the fire alarm system via the **Modbus Interface** and **Loop Emulation**. The interface translates data from external Modbus registers into detector or module status data readable by the fire alarm control panel. The **Modbus Interface** can emulate up to four analogue addressable loops.

The **Modbus Interface** can also transfer isolate & de-isolate requests to the control panel.

The **Modbus Interface** supports ASCII and RTU Modbus modes over either RS232 or RS485. When fitted with a suitable adapter such as the MOXA MB3180, it also supports Modbus TCP.

When used with a suitable Modbus master device, the **Pertronic Modbus Interface** can optimise communication speed by packing data from up to four devices into a single Modbus register.

To avoid ground-loop problems, the RS-485 Mimic Bus is galvanically isolated from the Modbus.

Features:

- Functions as Modbus slave (server)
- Modbus connection configurable RS-232 or RS-485, 300 bit/s to 115,200 bit/s
- Supports Modbus TCP when connected to RS-485 to TCP adapter
- Provides all data accessible via the fire alarm control panel's LCD display
- Emulates up to four analogue addressable loops, each with up to 159 detectors and 99 modules (Note 1)
- Optional fault monitoring between **Modbus Interface** and control panel
- Configurable with a PC running a terminal emulation program via USB mini-B cable
- Electrically isolated from the fire alarm control panel's RS-485 Mimic Bus
- On-board LEDs provide diagnostic information

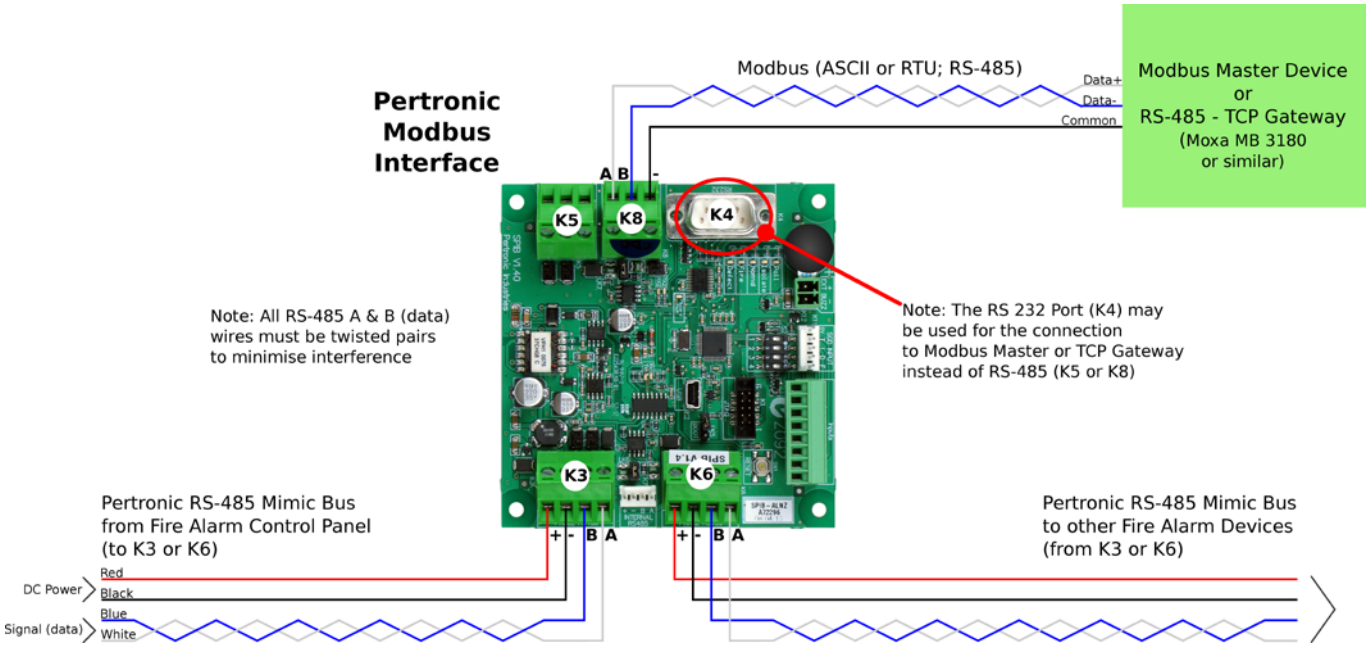
Note 1: The total number of actual and emulated loops cannot exceed the panel's maximum loop capacity.

Specifications:

Compatible Panel Type	F120A with firmware v. 5.0 or greater	
Supply Voltage	11 VDC to 30VDC	
Current Consumption (Typical)	21 mA @ 24VDC	
Mimic Bus Connection	RS-485, 9600 bit/s, isolated	(Functional insulation only)
Modbus Connection	Configurable RS-485 or RS-232 300 bit/s to 115,200 bit/s	
Configuration Connection	USB Mini-B	
Modbus Mode	ASCII or RTU (binary)	
Modbus Reply Delay	Configurable	
Modbus Timeout Checking	Configurable	
PCB Dimensions (Note 2)	94.0 mm x 96.5 mm x 30 mm	H x W x D mm
Cable Termination	0.5 mm² to 2.5 mm², stranded cable	
Operating Temperature	-10 °C to +50 °C	
Humidity	⩽ 95 % RH, non-condensing	

Note 2: The Modbus Interface consists of a Pertronic SPIB board with Pertronic Modbus Interface firmware.

Typical Connections:



Ordering Information:		
Product Code	**Description**	**NZFPA Listing No:**
SPIB-MODBUS HLI	Modbus HLI (check interfacing required)	
MOXA-MB3180	MOXA-1 Port RS-232/422/485 Modbus TCP to Serial Comm Gateway	

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