TECHNICAL DATA SHEET

NETWORK COMMUNICATIONS CARD

FAP-3002 NETWORK COMMUNICATIONS CARD

Agni Veiga Rs485 is a robust, multi - node communication standard for Intelligent Addressable use, enabling long-distance (up to 1200Mtr) data transfer between 16 Node, devices over two wires (A/B) using differential signals for excellent noise immunity full - duplex RS485 bus topology with twisted-pair cables, making it reliable for noisy environments.

Differential Signaling: Uses two wires (A & B) with inverted signals Noise affects both equally, allowing receivers to focus on the Voltage difference, rejecting interference.

Product Overview & Function

Agni Veiga Rs485 Network Topology Best suited for bus Ring or daisy-chain layouts avoiding star topologies to prevent signal reflection.
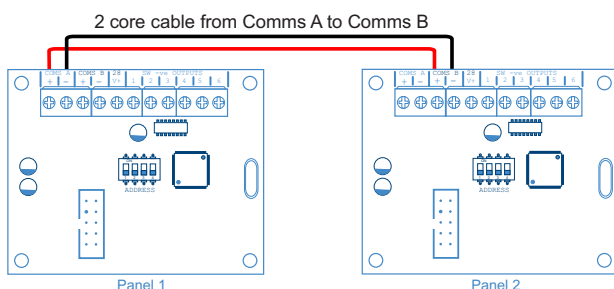
Multi-NodeNetwork: Supports multiple transmitters and receivers on a single bus (up to 16 node devices, extendable with transceivers), unlike RS485's point-to-point.

Distance & Speed: Up to 1200 meters at decent speeds (up to 10 Mbps, lower speeds for longer distances).
Full access Mode used as high speed data communication (devices take turns transmitting/receiving on the same pair) but can be full-duplex.
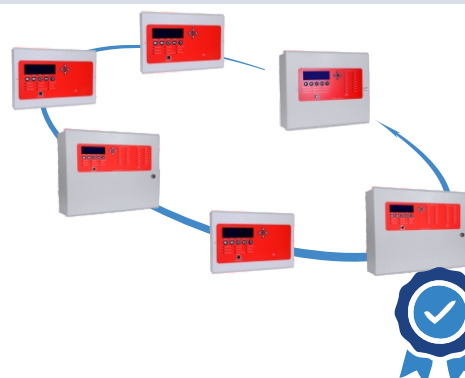
Response Indicator Concealed

Full Access Remote Monitoring

Reliable: Handles harsh industrial environments.

Cost-Effective: Reduces wiring compared to many alternatives.

Scalable: Easily add many devices to one network.

Simple plug in communication card

Allows networking of up to 8 control panels & 8 repeater

Fully monitored fault

tolerant network or legacy

radial circuit wiring

Includes 6 x programmable outputs

TECHNICAL SPECIFICATIONS

Supply Through	Main Panel Mother Board
Standby Current	24/28 Vdc @ 5.2mA
Cable Size	1.5-SQ-MM
Comms A - B	28v, fused @ 500mA
Operating Temperature	-10°C / +70°C

Output	programmable switch -ve, max load = 40mA
Weight (standard base included) 45 g	
IP rating	40
	(42 overall waterproof protection)

2 core cable from Comms A to Comms B

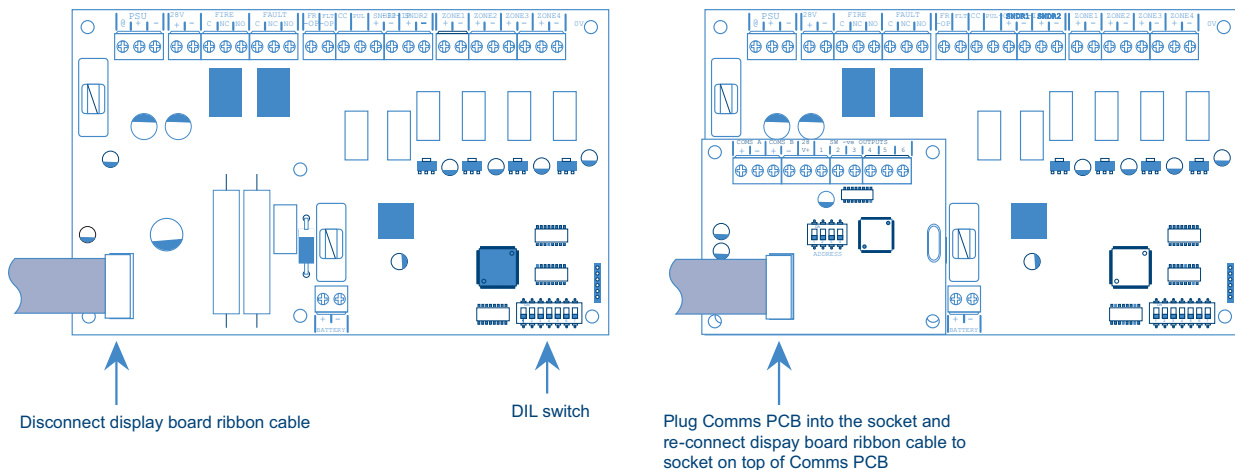Panel 1   Panel 2

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Installation Instructions

The Comms PCB fits into the control panel on top of the main circuit board where the ribbon cable from the display board comms is normally plugged.

To fit the Comms PCB, power down the panel, un-plug the display board ribbon cable from the main circuit board and plug the Comms PCB into the socket instead.
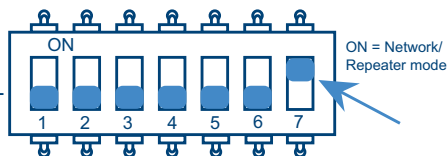
A socket is provided on the top of the Comms PCB to re-connect the display board ribbon cable.

Disconnect display board ribbon cable

DIL switch

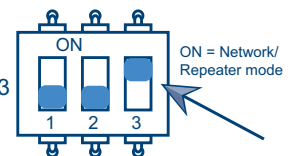Plug Comms PCB into the socket and re-connect dispay board ribbon cable to socket on top of Comms PCB

Each panel to be included in the network is defined by setting a switch on the main PCB.

OFF = Stand Alone mode, ON = Network/Repeater mode.

In the case of the Esento Excel this is switch 7 on the 7 way DIL switch
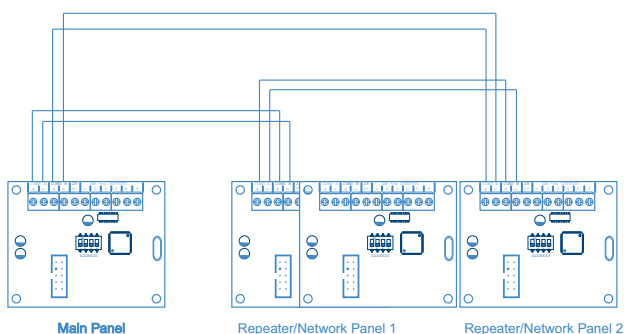
ON = Network/Repeater mode

In the case of the Esento Evoque this is switch 3 on the 3 way DIL switch
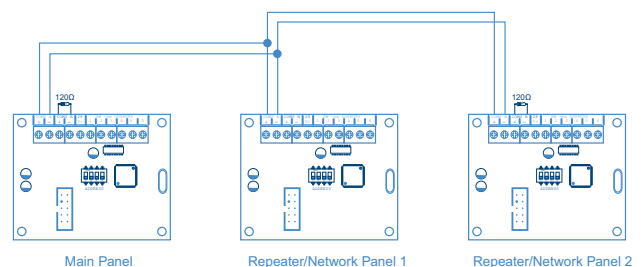
ON = Network/Repeater mode

With this switch in the ON position the panel will automatically recognise & operate the Comms PCB (TPCA05).

Fault Tolerant Loop Wiring

Radial/Legacy Wiring

120Ω   120Ω

Main Panel   Repeater/Network Panel 1   Repeater/Network Panel 2

Main Panel   Repeater/Network Panel 1   Repeater/Network Panel 2

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