

FA-ISOCOON Universal Isolated Network Adapter



FA-ISOCOON <--->

The FA-ISOCOON Universal Isolated Network Adapter is used to place RS-232 devices such as PLCs, operator interfaces, industrial computers, etc., on an RS-422 or RS-485 multidrop network. The Network Adapter converts RS-232 signal levels to isolated RS-422 or RS-485 signal levels. This network adapter is similar to our other RS-232/422 converters, but it offers the added benefit of network isolation. This adapter is especially useful in noisy environments where data corruption due to induced noise is possible.

The FA-ISOCOON features Automatic Network Transmitter Enable (ANTE) so that an RTS output is not required on the connected RS-232 device. The FA-ISOCOON is a direct functional replacement for the FA-ISONET when CTS Controlled Transmit Enable (CCTE) mode is active. Having both ANTE and CCTE modes, the FA-ISOCOON is compatible with most RS-232 devices.

The diagram below shows a simple example of an FA-ISOCOON used for PC to multiple PLC communications.

Key features

Following are some of the key features and benefits of the FA-ISOCOON:

- Dipswitch selectable Automatic Network Transmitter Enable so that an RTS output is not required on the connected RS-232 device.
- Dipswitch selectable CTS Controlled Transmit Enable mode for backwards compatibility with the FA-ISONET.
- Dipswitch select termination and bias resistors; short/open TXD+/RXD+ and TXD-/RXD- terminals for 1/2 duplex comm.
- Isolation removes ground loop currents from data lines. Noise voltages resulting from transformer-like coupling are also eliminated.
- Many forms of radiated noise are reduced to negligible levels.
- FA-ISOCOON can be powered from 24 VDC or 5 VDC. (Unit may be powered directly from CPU pins on CPUs with +5V pins or the auxiliary 24 VDC power supply on I/O bases.)
- Unit has RS-232 transmit and receive LEDs and an RS-422/485 Transmitter Enable LED to simplify troubleshooting.

RJ12 port allows you to use the modular cables (included) to quickly connect the D0-05, D2-240 or D3-340 to the FA-ISOCOON. Connections can be made to the D3-350, DL405 CPUs and PCs with the connectors that are included.

Specifications

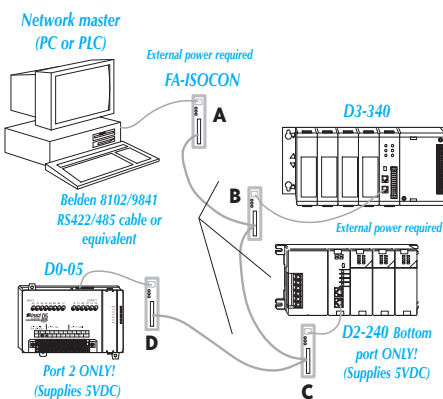
- Max. network distance: 4000 feet
- Max. number of devices: 32 per network
- Max. baud rate: 115.2 Kbaud
- Supply voltage: 5 VDC @ 100 mA max. (from CPU) or 24 VDC @ 70 mA (external source)
- Max. driver load: 62 ohms
- Driver voltage: $\pm 1.5V$ minimum
- No load current: 80 mA
- Max. current: 100 mA (62 Ω)
- Isolation resistance: $>10^{14} \Omega/7pF$
- Voltage withstand: 1.2 KVrms/1s 1.0 KVrms/1 minute
- Operating temp: 0 to 60°C (32 to 140°F)

Installation is a 'snap'

The FA-ISOCOON comes with an attached DIN rail connector. Simply hook the top of the DIN connector on the DIN rail, then pull the unit down and rotate the bottom of the DIN connector onto the DIN rail (or use the provided holes to flush-mount it on a panel). The adapter's RJ12 serial port can be connected to a PC or a DirectLogic CPU port using one of the supplied cables/connectors. Or, use the adapter's RS-232 terminal block to connect to a serial device. Connect the RS-422/485 communications wiring to the convenient RS-422/485 terminal blocks.

Adapter components

- FA-ISOCOON Isolated Network Adapter with attached DIN mounting bracket
- 25-pin male to RJ12 6P6C connector
- 9-pin female to RJ12 6P6C connector
- 1' cable with RJ12 6P6C plug to RJ11 4P4C plug for use with D3-340.
- 1' cable with RJ12 6P6C plug to RJ12 6P6C plug



- FA-ISOCOON converts the network master's (computer or PLC, etc.) RS-232 communication signal levels to RS-422/485.
- FA-ISOCOON converts the RS-422/485 signal levels back to RS-232 for a connection to the D3-340 CPU bottom port.
- FA-ISOCOON converts the RS-422/485 signal levels back to RS-232 for a connection to the D2-240 CPU bottom port.
- FA-ISOCOON converts the RS-422/485 signal levels back to RS-232 for a connection to the D0-05 CPU port 2.

Dimensions including DIN bracket and terminal blk.
HxWxD (4.55" x 0.90" x 4.69")



Removable terminal blocks make it easy to connect communication wiring. (Replacement terminal plug kit FA-ISOCOON-P)