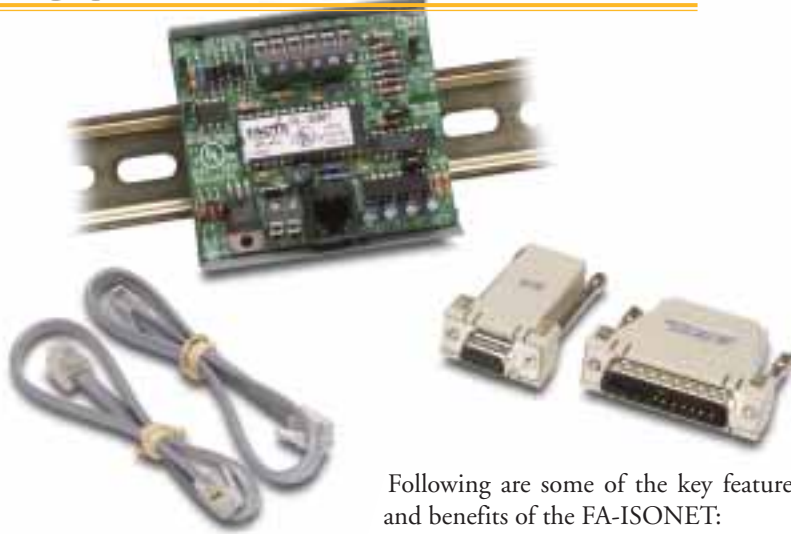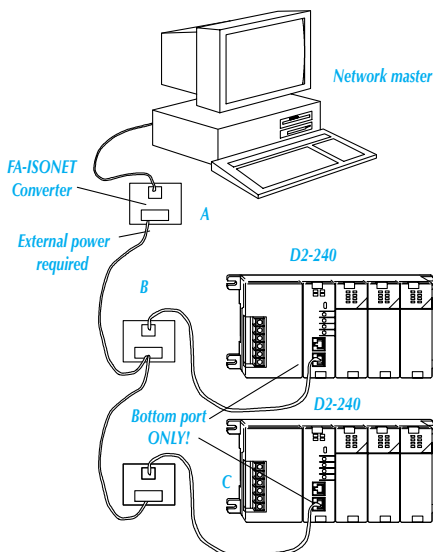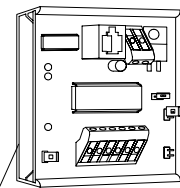# FA-ISONET NETWORK ADAPTER

FA-ISONET

The FA-ISONET Universal Isolated Network Adapter is used to place PLCs, operator interfaces, industrial computers, etc. on an RS-422/485 multidrop network. 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 diagram below shows a simple example of FA-ISONET use for PC to multiple PLC communications.

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

- Isolation removes ground loop currents from data lines. Noise voltages resulting from transformer-like coupling are also eliminated.
- Completely eliminates common mode noise effects.
- Many forms of radiated noise are reduced to negligible levels.
- FA-ISONET can be powered from 24VDC or 5VDC. (Unit may be powered directly from CPU pins on CPUs with +5V pins or the auxiliary 24VDC power supply on I/O bases.)
- Unit has transmit and receive LEDs to simplify troubleshooting.
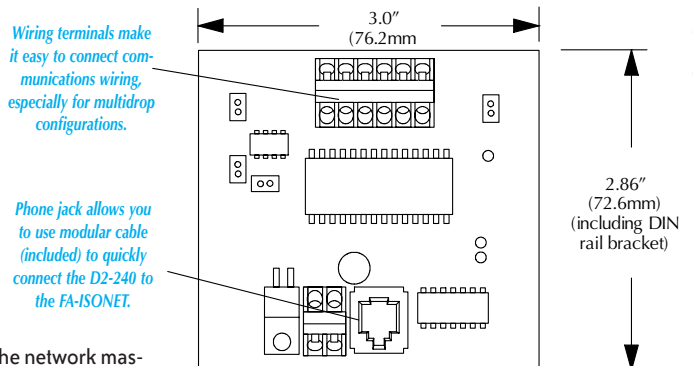
The FA-ISONET comes with several items:

- RS232/422/485 converter circuit board
- Mounting assembly (including a DIN rail bracket) for the circuit board
- 25-pin male to RJ12 6-pin gender changer
- 9-pin female to RJ12 6P6C connector
- 1' cable, RJ12 6P6C plug to RJ11 4P4C plug
- 1' cable with RJ12 6P6C plug to RJ12 6P6C plug

Installation is a "snap"

The FA-ISONET comes with a DIN rail housing for the circuit board. Simply snap the board into the housing and mount it on a DIN rail (or flush mount it on a panel). Connect the communications wiring to the convenient terminal blocks, then connect the adapter to the CPU port with one of the cables.

Specifications

- Max. network distance: 4000 feet
- Max. number of devices: 32 per network
- Max. baud rate: 19.2 Kbaud
- Supply voltage: 5VDC (from CPU) or 24VDC (external source)
- Max. driver load: 62 ohms
- Driver voltage: ±1.5V minimum
- No load current: 65mA
- Max. current: 100mA
- Isolation resistance: 100Mohm minimum
- Voltage withstand: 1.2KVrms/1s 1.0KVrms/1 minute
- Operating temp: 60ºC (140ºF)

Network master

FA-ISONET Converter

A

External power required

B

D2-240

Bottom port ONLY!

D2-240

C

A) FA-ISONET converts the network master's (computer) RS-232C communications card signal levels to RS-422/485.

B) FA-ISONET converts the RS-422/485 signal levels back to RS-232C for a connection to the D2-240 CPU bottom port.

C) FA-ISONET converts the RS-422/485 signal levels back to RS-232C for a connection to the D2-240 CPU bottom port.

Wiring terminals make it easy to connect communications wiring, especially for multidrop configurations.

Phone jack allows you to use modular cable (included) to quickly connect the D2-240 to the FA-ISONET.

3.0" (76.2mm)

2.86" (72.6mm) (including DIN rail bracket)

GND		6 SIG GND
RXD+		5 +5V IN
RXD–		4 TXD
TXD–		3 RXD
TXD+		2 CTS
		1 SIG GND

FA-ISONET Connector

www.automationdirect.com/communications

Comm.