# **DI-900MB Series Accessories**

# Software Interface Package

DATAQ Instruments, Inc., provides a full set of tools to help you get your modules set up and ready to run in an easy-to-order package that includes the Windows Configuration Software, an RS-232 to RS-485 Serial Port Converter, and an RS-485 Signal Cable. These components provide everything you need to set up a Series 900 I/O module from your desktop PC before installing it on the network.

The Software Interface Package Includes the following:

Configuration Software for Windows (95, 98, ME, NT, 2000, XP) on CD-ROM.

Non-isolated RS-232 to RS-485 Serial Port Converter, DB-95 to DB-9F.

RS-485 to 3-wire Cable Converter, DB-9M to 3 x 12 AWG RS-485 Cable, 8 ft.





#### RS-232 to RS-485 Serial Port Converter

This Serial Port Converter is a non-isolated, port-powered, RS232-to-RS485 signal converter. Although the converter receives its power from the RS232 data and handshake lines, no handshaking lines are required to control the converter's RS485 driver. It plugs directly into the DB-9 male RS232 serial port connector on the back of most personal computers. It connects to the module via the cable provided in the interface package.

#### Windows Configuration Software

The Windows Configuration Software provides an easy way to configure your module to whatever your application may be.

The configuration software provides the following capabilities:

• Change Host and Slave communication settings (Baud Rate, COM Port, address, et al.

• Monitor the discrete I/O signal states and watchdog status allowing discrete outputs to be turned on/off.

• Allows a configuration to uploaded or downloaded to/from the module via the RS 485 interface.

• Provides controls the reset the module.

• Reads the contents of the Module Status Register.

• Allows optional user documentation to be saved with a module file.

• Allows a module's complete configuration to be printed in an easy-toread, single-page format, including user documentation.



Test page simplifies diagnostics with a live visual display of the module's input and output values.

# **Isolated Signal Converter**



This unit provides an isolated interface between the host PC's RS-232 port and RS-485 Modbus network devices. Signal conversion is bidirectional with operation that is transparent to all devices. The RS-485 network supports up to 32 devices (including the converter) across 4000 foot distances. Installation of additional network devices or extending the distance requires an Isolated Network Repeater (Model Numbers 100977 or 100978). Power cord included. Signal Cable (Model 100976) connects the PC's RS-232 Port to the Isolated Signal Converter.





### **Specifications**

#### Baud Rates

Switch-selectabe from 300 to 38.4K baud.

#### Duplex

Half duplex only.

#### **Network Termination Resistors**

Two terminal blocks and 120 ohm resistors provided to terminate both ends of the RS-485 network.

#### Wiring Connectors

Terminal blocks with screw clamps for 14-26AWG

#### **Operating Temperature Range**

-25 to 60°C (-13 to 140°F)

#### Isolation

Withstands 1500V AC surge for 60 seconds (250V AC or 354V DC continuous).

### Model Numbers

100974 (115V AC Power) (discontinued) 100975 (230V AC Power) (discontinued) 100976 (8ft. long DB-9 to 3-wire RS-232 Cable)



# **Isolated Network Repeater**



This unit isolates and boosts RS-485 signals to extend communication distances or increase the number of devices on the network. Each Repeater permits the addition of a network branch with up to 32 devices (including the Network Repeater) and will transmit RS-485 signals another 4000 feet. Operation is transparent to all devices and no handshaking is required. Two terminal blocks are provided for 120 ohm resistors to terminate both ends of the network branch.

# **Specifications**

Baud Rates

Switch-selectable from 300 to 38.4K baud.

### Duplex

Half duplex only.

#### **Network Termination Resistors**

Two terminal blocks and 120 ohm resistors provided to terminate both ends of the RS-485 network.

#### **RS-485 Wiring Connectors**

Terminal blocks with screw clamps for 14-26AWG.

#### **Power Wiring Connections**

Terminal block with screw clamps for 12-18AWG.

# **Operating Temperature Range** -25 to 60°C (-13 to 140°F).

#### Isolation

Withstands 1500V AC surge for 60 seconds (250V AC or 354V DC continuous).





### Model Numbers

100977 (115V AC Power) 100978 (230V AC Power) 100979 (115V AC Power Cord)



# Universal 50W Power Supply

This Universal 50W Power Supply is the ideal power source to drive your network.





# **DIN-Rail Mounting**



For your convenience, DATAQ Instruments, Inc., offers a rack mount kit to simplify your system installation. This 19-inch kit provides a clean solution for mounting your I/O modules and a power supply. Holds up to 16 DI-900MB modules.







## USB to RS-232 Adapter

Convert signals from RS-232 to USB with this convenient adapter. For use with all DI-900MB Series modules.

#### Dimensions

Length: 3.15 in (8.0 cm) Height: 0.80 in (2.03 cm) Width: 1.75 in (4.44 cm) Weight: 1.6 oz (45.36 g)

> Model Number 100970



For Use with DI-913MB modules. One Required for Each Channel.

# AC Current Sensor

The AC current sensor may be used in conjunction with the DC current input circuit of the Model DI-913MB to implement AC current measurement and alarms for inputs up to 20A rms. The optional AC current sensor is itself an isolated, accurate, toroidal instrument transformer, that outputs a safe, low-level DC milliamp signal to the input of the alarm. As an isolated device, it may also be used to facilitate input-to-input isolation between inputs of this model. **Input Burden**: A function of the wire gauge resistance used for primary turns.

AC Current Sensor to Transmitter Wiring Distance: 400 feet maximum for 18 gauge wire. Other wire gauges can be used as long as the resistance of both wires is less than  $5\Omega$ .

#### Input Overload:

20 times full scale for 0.01 seconds. 10 times full scale for 0.1 seconds. 5 times full scale for 1.0 second.

> Model Number 100973

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