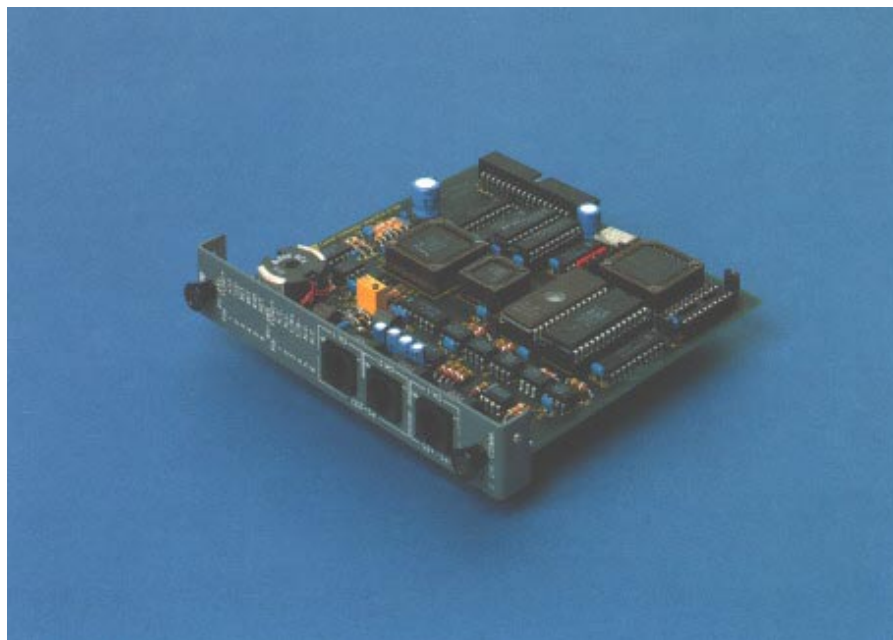




Model 2216 RS-232 Communications Module

Intelligent Remote Communications Expansion



The model 2216 Communications Module adds two RS-232 ports to Control Tech.'s automation controllers. These ports are optoisolated from the controller's logic circuitry, as well as the I/O power system for the controller, providing protection in instances where serial devices are located in electrically harsh environments. This can be important when connecting devices such as operator interface terminals, barcode readers, motor drives, and other devices subject to electrostatic discharge and noise generation.

The model 2216 supports the full protocol suite of the controller in which it resides. As with the controller's on-board port, any of the controller's internal registers, flags, and other resources may be monitored or changed. Programming can be accomplished via either serial port, and outbound message transmitting is also possible.

A Flexible Hardware Architecture

The two serial ports on the model 2216, terminating in modular jacks on the module's front panel, may be software-configured to one of six baud rates from 1200 baud to 38.4k baud. In addition to the standard receive, transmit, and common signals, these jacks also make available a locally-generated 5 volt power supply that can be used to power LCD displays and other small external loads.

Special purpose registers can be used to read individual characters in either port's input buffer, or to automatically parse an ASCII numeric value out of a response from an external device. This latter feature is useful when obtaining readings from external scales or other transducers that return a value in the form of an ASCII string.

An additional RS-485 port is present on the front panel. This port can be jumper-configured to replace one of the RS-232 ports, providing longer distance communications via a balanced differential circuit.

Local CPU for Data Handling

The model 2216 is equipped with a 16-bit processor, allowing operation of both ports at full rated speed without encumbering the controller's CPU. Complete messages are assembled locally on the module, and only then are passed to the controller's processor for servicing.



The model 2216 RS-232 Communications Module may be used with any Control Tech. 2600XM Series Automation Controller.

Absolute Maximum Ratings

	Min	Max	
Output Current (from on-board + 5 V supply)		250	mA DC
Ambient Temperature			
Operating	0	+50	°C
Storage	-20	+80	°C

Operating Characteristics

	Min	Typ	Max	
RS-232 Transmitters		±9	±12	VDC
RS-232 Receivers	±3		±12	VDC
Common Mode Voltage Range	-10.0		+10.0	VDC

Power Requirements (from controller)

Logic Supply (5 V)	185.0	250.0	mA
Auxiliary Supply (24 V)	85.0	170.0	mA

Note: Specifications shown above are at 25° C, unless otherwise noted.

For More Information

Further detailed connection and application information may be found in publication IG2216; this is the Installation Guide for the model 2216. Selection and applications assistance may be obtained from our staff of Systems Specialists – call the number below for further information.

Control Technology Corporation

25 South Street
Hopkinton, MA 01748

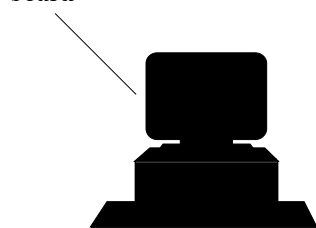
Telephone (508) 435-9595
Toll Free (800) 282-5008
FAX (508) 435-2373
email help@control.com

See us on the World Wide Web:
<http://www.control.com/>

Adapters and Cabling for the Model 2216

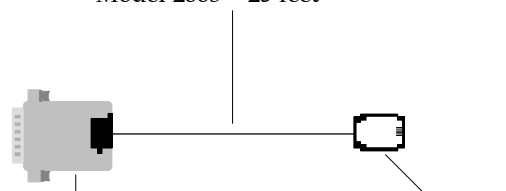
Several wiring aids are available for connecting the Model 2216 to standard 25-pin or 9-pin D type connectors.

Personal computer or other device with RS-232 asynchronous communications board



Communications cable:

- Model 2881 – 5 feet
- Model 2882 – 15 feet
- Model 2883 – 25 feet



D-connector to modular jack adapter:
Model 2880A for 25-pin D-connectors
Model 2880B for 9-pin D-connectors

Connects to Model 2216 modular jack