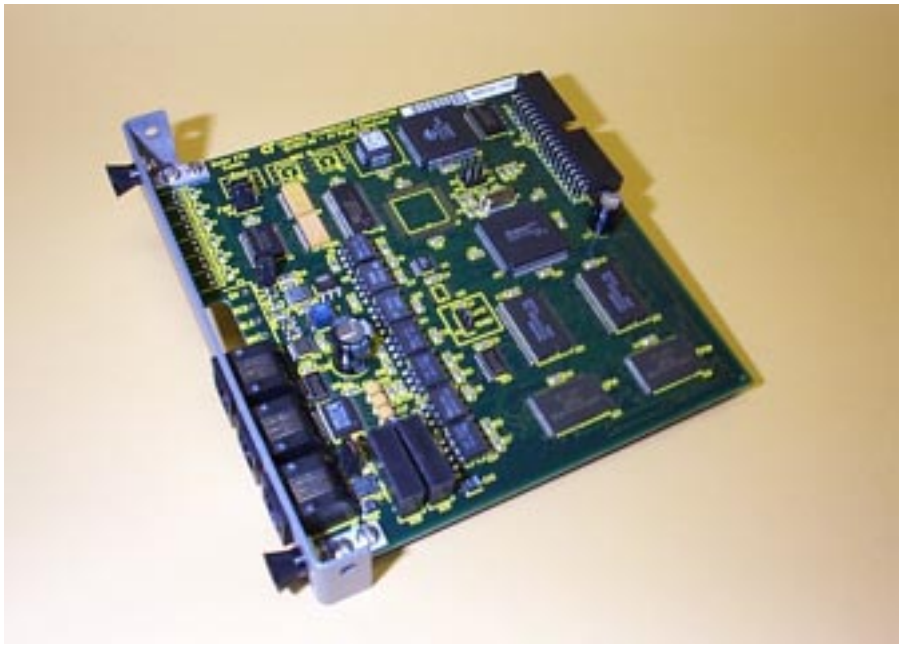
Model 2716 RS-232 Communications Module

Intelligent Remote Communications Expansion

Control Technology Corporation



The model 2716 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 computers, operator interface terminals, barcode readers, motor drives, and other devices subject to electrostatic discharge and noise generation.

The model 2716 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 2716, 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.

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 2716 is equipped with a 32-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 2716 RS-232 Communications Module may be used with any 2600XM or 2700 Series Automation Controllers.

Absolute Maximum Ratings	Min		Max	
Ambient Temperature				
Operating	0		+50	°C
Storage	-20		+80	°C

RS-232 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

RS-485 Operating Characteristics	Min	Typ	Max	
RS-485 common mode rejection	-7		+12	VDC
RS-485 hysteresis		70		mVDC
Combined impedance is less than 1 RS-485 load, up to 32 devices on a Bus				

Power Requirements (from controller)	Typ	Max	
Logic Supply (5 V)	320	360	mA
Auxiliary Supply (24 V)	0	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 IG2716; this is the Installation Guide for the model 2716.

Selection and applications assistance may be obtained from our staff of Systems Specialists — call the number below for further information.

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Adapters and Cabling for the Model 2716

Several wiring aids are available for connecting the Model 2716 to standard 25-pin or 9-pin D type connectors.