

Communication Interface (T8151B)



Figure 5-10: Communication Interface Module

The communication interface, shown in Figure 5-10, provides a range of communication services for the controller, minimizing communication loading of the TMR processor. The module allows communications with other Trusted systems, the engineering workstation and/or third-party equipment. The module is user-configurable and can support multiple communication media. The module has dual Ethernet and four serial ports accessible from the rear using the T8153 communications interface adapter, along with a diagnostic port accessible from the front faceplate.

The communications interface can be installed in any single width slot of a controller or expander chassis. Only modules installed in the controller chassis will support peer to peer.

There are ten connections available to the Modbus (RTU) protocol via the Ethernet TCP/IP stack for which an IP port number must be configured (the default is 2000). There is one connection to the programming toolset with a fixed IP port number of 6000. The module also supports up to ten connections of Modicon open Modbus TCP on port 502.

The module is supplied with dual redundant +24V dc power from the chassis backplane.

The communications interface module status LED states and their meanings are:

LED	Indication
Healthy	Module health. Steady green - healthy module. Flashing red - module failed.
Active	Steady green when the module is in the Active mode (application running, communications enabled).
Standby	Steady green when the module is in the Standby mode (application stopped, communications disabled).
Educated	Configuration loaded successfully from Processor
Communications	Six tri-colored LEDs indicate data transfer activity on all serial communications ports and both Ethernet ports. The LEDs flash red when transmitting data, green when receiving and amber when transmitting and receiving. The green LED is off with a good connection, and on with no or a bad connection.

Table 5-3: Communications Interface Module LED Indications