CPU Modules - Communications

Port Specifications

RS-485 Port

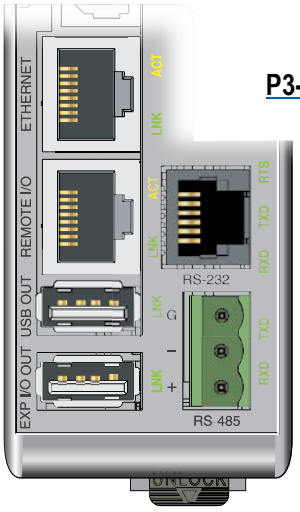
A 3-pin removable terminal block used for:

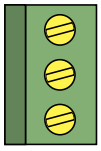
- Modbus RTU Master connections
- Modbus RTU Slave connections
- ASCII Incoming and Outgoing communications
- Custom Protocol Incoming and Outgoing communications

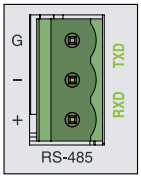
Removable connector included.

RS-485 Port Specifications	
Port Name	***RS-485***
Description	Non-isolated RS-485 port connects the CPU as a Modbus/ ASCII master or slave to a peripheral device. Includes ESD/EFT protection and automatic echo cancellation when transmitter is active.
Data Rates	Selectable, 1200, 2400, 9600, 19200, 33600, 38400, 57600, and 115200 bps.
TXD+/RXD+	RS-485 transceiver high
TXD-/RXD-	RS-485 transceiver low
GND	Logic ground
Input Impedance	19kV
Maximum load	50 transceivers, 19kV each, 60V termination
Output Short Circuit Protection	±250mA, thermal shut-down protection
Electrostatic Discharge Protection	±8kV per IEC1000-4-2
Electrical Fast Transient Protection	±2kV per IEC1000-4-4.
Minimum Differential Output Voltage	1.5 V with 60V load
Fail safe inputs	Logic high input state if inputs are unconnected
Maximum Common Mode Voltage	-7.5 V to 12.5 V.
Port Status LED	Green LED illuminated when active for TXD and RXD
Cable Options	Q8302-1 (cut to length) or Belden 9841 equivalent

P3-550E



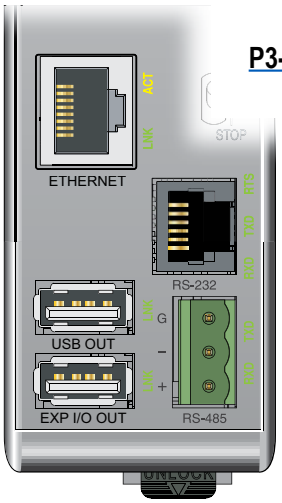




Pin #	Signal
G	GND
–	TXD-/RXD-
+	TXD+/RXD+

*Removable connector included.

P3-530



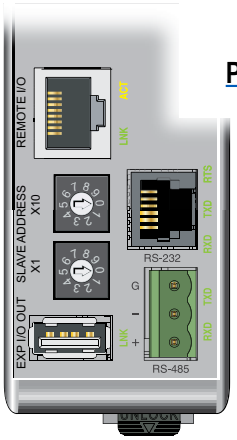
Terminal Block Specifications	
Number of Positions	3
Pitch	5mm
Wire Range	28–12 AWG Solid Conductor 30–12 AWG Stranded Conductor
Screw Driver Width	1/8 inch (3.175mm) maximum
Screw Size	M2.5
Screw Torque	4.5 lb·in (0.51 N·m)

Remote Slave Modules

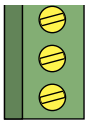
RS-485 Serial Port

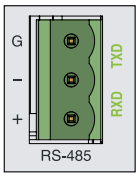
Non-isolated RS-485 port connects the P3-RX as a Modbus or ASCII master or slave to a peripheral device.(Removable connector included.)

RS-485 Specifications	
Description	Non-isolated RS-485 port connects the P3-RX as a Modbus or ASCII master or slave to a peripheral device. Includes ESD/EFT protection and automatic echo cancellation when transmitter is active.
Data Rates	Selectable, 1200, 2400, 9600, 19200, 33600, 38400, 57600, and 115200 bps.
TXD+/RXD+	RS-485 transceiver high
TXD-/RXD-	RS-485 transceiver low
GND	Logic ground
Input Impedance	19kΩ
Maximum load	50 transceivers, 19kΩ each, 60Ω termination
Output Short Circuit Protection	±250mA, thermal shut-down protection
Electrostatic Discharge Protection	±8kΩ per IEC1000-4-2
Electrical Fast Transient Protection	±2kΩ per IEC1000-4-4.
Minimum Differential Output Voltage	1.5 V with 60Ω load
Fail safe inputs	Logic high input state if inputs are unconnected
Maximum Common Mode Voltage	-7.5 V to 12.5 V.
Port Status LED	Green LED is illuminated when active for TXD and RXD
Cable Options	Q8302-1 (cut to length) or Belden 9841 equivalent



P3-RX





Pin #	Signal
G	GND
–	TXD-/RXD-
+	TXD+/RXD+

*Removable connector included.

Terminal Block Specifications	
Number of Positions	3
Pitch	5mm
Wire Range	28–12 AWG Solid Conductor 30–12 AWG Stranded Conductor
Screw Driver Width	1/8 inch (3.175 mm) maximum
Screw Size	M2.5
Screw Torque	4.5 lb·in (0.51 N·m)

Installation Procedure

Step One:

Locate the two sockets next to the power supply; the module will be inserted into this location.

Step Two:

Insert P3-RX at a 45 angle into the notch located at the top of the base and rotate down until seated.

Step Three:

Snap retaining tab into the locked position.

WARNING: *EXPLOSION HAZARD – DO NOT CONNECT OR DISCONNECT CONNECTORS OR OPERATE SWITCHES WHILE CIRCUIT IS LIVE UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS. DO NOT HOT SWAP.*