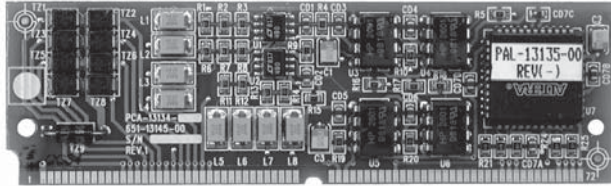


PRO-2000 RS-422 Interface Module



Description

The RS-422 communication interface module easily snaps onto the PRO-2000 Series products to enable RS-422 communication capabilities to compatible equipment.

The module has two RS-422 channels, with each channel having one "Receiver" and one "Transmitter" output.

The RS-422 module allows "point-to-point" serial communication and can be used on the following PRO-2000 Series products:

- Communication card mounted onto the backplane of the Display Unit (LCD card)
- Communication card mounted onto the backplane of the Processing Unit (MPU card)
- Communication socket of the Display Unit (LCD card)
- Communication socket of the Processing Unit (MPU card)

The RS-422 module has an optical interface to the system electronics and is powered by an isolated power supply that greatly increases electrical noise immunity.

All inputs and outputs have full transient protection that guards against electrical and electrostatic discharges that can occur in the field.

Operation

Point-To-Point Communication

The point-to-point communication capability between the Master Panel and a remote LCD Unit allows installation of a remote LCD Unit away from the Master Panel. The Master Panel can be an X2 or and X6 type panel. In order to improve the reliability of the communication between panels, it is possible to add a loop back connection. The loop back connection allows fault tolerant communication between devices.

Features

- Allows RS-422 communication on PRO-2000 products
- Full transient protection on all RS-232 inputs & outputs
- Opto-isolated interface to system electronics for an increased electrical noise immunity
- Modular design for easy replacement by insertion into the receiver board's 72-pin socket
- Two RS-422 ports on each module

Network Communication

This type of application displays the network capability of the PRO-2000 line of products. The Master System and/or the Slave System can be any X2 or X6 type panel.

The network protocol is handled by the master system that sends and receives information to and from the slave system.

An incoming RS-422 signal to a slave system is divided into two paths: the first path is used to signal the local slave while the second path is sent back through the second port in the RS-422 module, where a regenerated RS-422 signal is sent to the next slave system in line.

An optional loop back connection can be added from the last slave in the chain to the master in order to improve reliability and provide fault tolerant communication.

This would prevent a system shutdown and maintain network continuity in the event that a cable should short or sever. The loop back connection would ensure continued network communication from both sides of the ruptured cable. The loop back connection can be enabled or disabled when the system is configured.



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