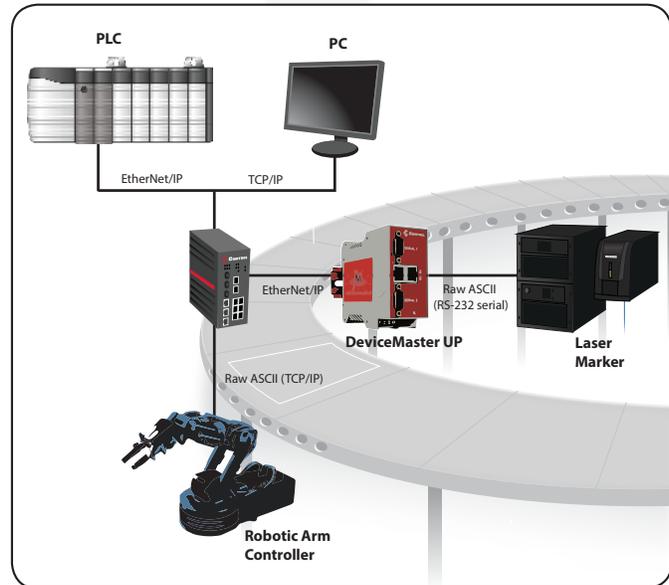# AIRCRAFT PART MANUFACTURING AUTOMATION

A large sensor and measuring instrument manufacturer has teamed up with Comtrol to offer an innovative factory automation capability to industrial manufacturers and warehouse distribution centers. Optimizing efficiency and increasing productivity through mechanization and industrial innovation is the goal.

An industrial production company creating aircraft parts received a plan from a factory automation integrator to streamline a floor process in the warehouse. The specific assembly process was responsible for etching numbers onto finished parts and readying them for shipment.

Included in the assembly, the sensor manufacturer's laser marking machine etches part numbers onto the completed projects. A robotic arm then receives each etched piece and packs it properly for shipping. This configuration is integrated and controlled by a PLC, PC application and Comtrol's DeviceMaster UP 2-Port 2E with its DualConnectPlus™ feature. This manufacturer needed to connect the raw/ASCII laser marker over serial RS-232 to an EtherNet/IP enabled PLC.

The laser marker is connected to Comtrol's DeviceMaster UP via RS-232 serial. Data is transmitted from the laser marker through the DeviceMaster UP where conversion to EtherNet/IP takes place to route the data to the PLC. The DeviceMaster's DualConnectPlus feature was utilized in this application to ensure that connection between the laser marker and the DeviceMaster UP was operating correctly, before moving on to troubleshoot the connection between the DeviceMaster UP and the PLC.

DualConnectPlus connects raw/ASCII devices (serial and/or Ethernet) to PLCs and/or applications simultaneously. String, RFID, and barcode data filtering eliminates redundant data while extracting the RFID and barcode parameters. It opens communication to the SCADA system and can provide troubleshooting information for individual steps of the communication process. This information can determine PLC, device and sensor health, and help yield consistent communication and successful integration. This manufacturer was able to correctly identify where the communication process in this system was initially failing by using the DualConnectPlus feature and Comtrol's engineering tech support team.

The DeviceMaster UP DB9M 2-Port 2E Ethernet gateway operates in a -37° to 74° C temperature range and variable power input eliminates the need for power converters. DeviceMaster UP products provide innovative EtherNet/IP, Modbus, and PROFINET IO connectivity to a wide variety of devices. It can enable you to quickly connect PLCs, SCADA, OPC servers and applications to devices such as barcode scanners, RFID readers, weigh scales, vision systems, printers, encoders, HVAC and sensors.

DeviceMaster® UP DB9 2-Port 2E

Part Number: 99561-6

KEY FEATURES AND BENEFITS

- DualConnectPlus™ Technology - simultaneously connect both serial and Ethernet devices to PLCs and/or applications. String, RFID, and barcode data filtering eliminate redundant data while extracting the RFID and barcode parameters.

- Provide PLC connectivity - to standard serial devices with protocol support for EtherNet/IP, PROFINET, Modbus/TCP, Modbus RTU/ASCII, and TCP/IP.

- Supported PLC models -

    EtherNet/IP: Allen Bradley ControlLogix family, SLC 5/05, PLC-5, MicroLogix

    PROFINET: Siemens ET 400, 300 S7

    Modbus: Modicon Quantum, Premium, Momentum, Compact, Micro, GE Fanuc Rx7i, Rx3i, 90-70, 90-30, Versamax

- Wide 37° to 74°C industrial temperature range

- Variable power input - eliminates need for power converters

- PortVision® enterprise monitoring and management software

- RoHS2 compliant under CE

- Security features - SSL & SSH management, SSL serial data stream encryption

PRODUCT DESCRIPTION

At Comtrol, we believe gateways should be intelligent, robust, and easy to use. The DeviceMaster UP provides innovative EtherNet/IP, Modbus, and PROFINET IO connectivity to a wide variety of devices. It can enable you to quickly connect PLCs, SCADA, OPC Servers and applications to devices such as barcode scanners, RFID readers, weigh scales, vision systems, printers, encoders, HVAC and sensors.

With its simplified web-based configuration pages, innovative functionality and informative diagnostic information, the DeviceMaster UP provides the functionality required to make your job easier.

COMTROL®