6-Axis Load Cell Solutions
Multi-Axis

Industry: Test and Measurement

Summary

Customer Challenge

Customer needs a 6-Axis Load Cell System that can perform tests at a high sample rate and communicate this information via EtherCAT. In addition to this, the customer would like to connect this 6-Axis System to Ethernet so this same 6-Axis system can be used in a setup process that occurs from time to time with their industrial equipment.

Interface Solution

Interface suggests using Model BX8-HD44-EC High Speed Data Acquisition System with integrated EtherCAT protocol with Model 6AXX 6-Axis Load Cell. In addition to this, Interface suggests that they integrate a Raspberry Pi, with custom software, into the 6-Axis EtherCAT System to provide the Ethernet communication this customer needs for their equipment setup.

Results

Interface's BX8-HD44-EC High Speed Data Acquisition Instrument with 6-Axis Load Cell and the integrated Raspberry Pi was able to take needed measurements and communicate them through EtherCAT protocol. In addition to this, the Raspberry Pi Ethernet solution was able to work successfully with the customers equipment and provide the setup solution they were looking for.

Materials

- BX8-HD44-EC High Speed Data Acquisition System with integrated EtherCAT protocol which comes standard with the BlueDAQ setup, logging and graphing software
- 6AXX 6-Axis Load Cell
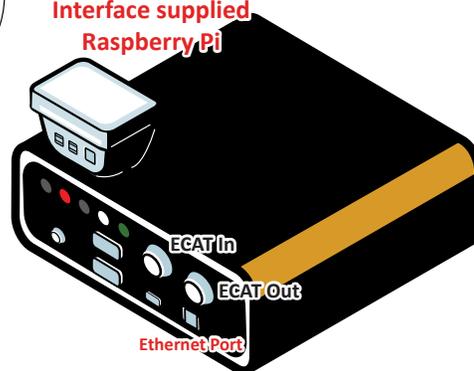- Interface Supplied Raspberry Pi with custom software
- Customers equipment

How It Works

1. The 6AXX 6-Axis Load Cell is installed into customers application.
2. The BX8-HD44-EC High Speed Data Acquisition Instrument with Raspberry Pi is connected to the customer's PC, EtherCAT Network and Ethernet Network.
3. Using software for both the BX8-HD44-EC and for the Raspberry Pi, customer successfully uses equipment to setup equipment, log and graph data as captured from the 6-Axis Load Cell System.

6AXX 6-Axis Load Cell
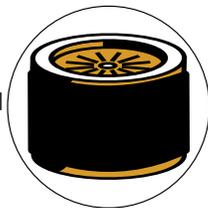
Interface supplied Raspberry Pi

BX8-HD44 EC High Speed Data Acquisition System

ECAT In
ECAT Out
Ethernet Port