Problem Solvers
Practical Application Ideas and Technical Information

Interface with 4-Wire MODBUS RTU Control Systems

Problem: We have various process signals in remote locations that we want to bring into our existing control system which operates on a 4-wire MODBUS network. Do you have remote I/O that can communicate via 4-wire MODBUS?

Solution: The NCS NET Concentrator System® allows any mix of analog, temperature (RTD and thermocouple) and discrete inputs and outputs in a network. The NCS converts the signals to a standard MODBUS RTU communications protocol (RS-485), which can be sent long distances back to the 4-wire control system. An RS-485 Isolator/Repeater, such as the one offered by B&B Electronics, is used to convert the NCS’s 2-wire RS-485 to the 4-wire RS-485 required by the control system. MODBUS RTU works fine over both 2- and 4-wire RS-485 networks.

Go to the Process Control and Distributed I/O Networks Systems Selection Guide

Model Number Examples
EMM / COM / SM / 20-30DC [DIN]
AIM / IO / AO4 / IP [DIN]
DIM / IO / CC8 / IP [DIN]