

REXA Digital BUS Interface

REXA offers the Series 2 Xpac with integral HART and Foundation Fieldbus control options. When an application calls for a different digital protocol such as PROFIBUS, MODBUS or DeviceNet, a **Digital Bus Interface (DBI)** is required. This packaged turnkey control box solution can network up to twenty sets* of REXA electronics to most of the common industrial control BUS networks. This packaged solution involves a separate enclosure that contains the correct network bus coupler, power supply and the required number of I/O modules to run the specified number of REXA actuators. The networks that can be connected to using this technology include; PROFI Bus, PROFI Net, EtherNet/IP, Modbus/RTU, Modbus/TCP and Device Net. The modular design of this solution allows for expansion modules to control additional units that can be added later. The only consideration that needs to be known up front is the maximum number of possible actuators so the proper enclosure size can be selected to support these additional modules.

FUNCTIONALITY

When connecting a REXA to one of the industrial control BUS networks the following functionality of the REXA actuator will be supported as a standard:

Inputs:

- Analog control signal

Outputs:

- Analog Position Feedback
- System Warning Relay
- Alarm Warning Relay
- Open Position Relay
- Closed Position Relay
- Other custom configuration can be configured upon special requests.

BENEFITS

If a site is already using one of these industrial control BUS networks, adding this control option will be a seamless integration into the customer's network. The benefit of using these types of industrial networks is the reduction of control and feedback wires that need to be run from the industrial control room to the actuators electronics. A single control line will be required from the DCS/Industrial PC to the DBI (or coupler) that is supplied as part of this option. This DBI can then run up to 20+ REXA actuators* that are within ninety feet of the location of the bus interface. To support each actuator's inputs and outputs described above, there would be 12 wire connection points between the actuator and the DBI run in one discrete cable. The benefit of the DBI is the control lines for up to 20 actuators can be run to the interface and only one single Ethernet or serial line cable needs to be run from the bus interface back to the DCS. There is a considerable savings over running all twenty lines the total distance from the actuators to the DCS. The maximum distance is ninety feet from the REXA control electronics box to the REXA Digital Bus Interface. Depending

on the network, the control line from the network coupler to the DCS/Industrial PC can be up to:

PROFI-Net & Profi-Bus	32 810 ft
Device Net	5 250 ft
Modbus/TCP & EtherNet/IP	328 ft
Modbus/RTU	65 ft

SPECIFICATIONS:

Supply Power 120/240 VAC 50/60 hz
 Ambient Temperature . . -25 °C to +55 °C

HAZARDOUS AREA APPROVALS:

PROFI Bus C1D2 Zones A-D and EX Zone 2
 PROFI Net C1D2 Zones A-D and EX Zone 2
 EtherNet/IP N/A
 Modbus/RTU C1D2 Zones A-D and EX Zone 2
 Modbus/TCP C1D2 Zones A-D and EX Zone 2
 Device Net N/A

**More than twenty sets can be configured with additional customization of the installation.*

