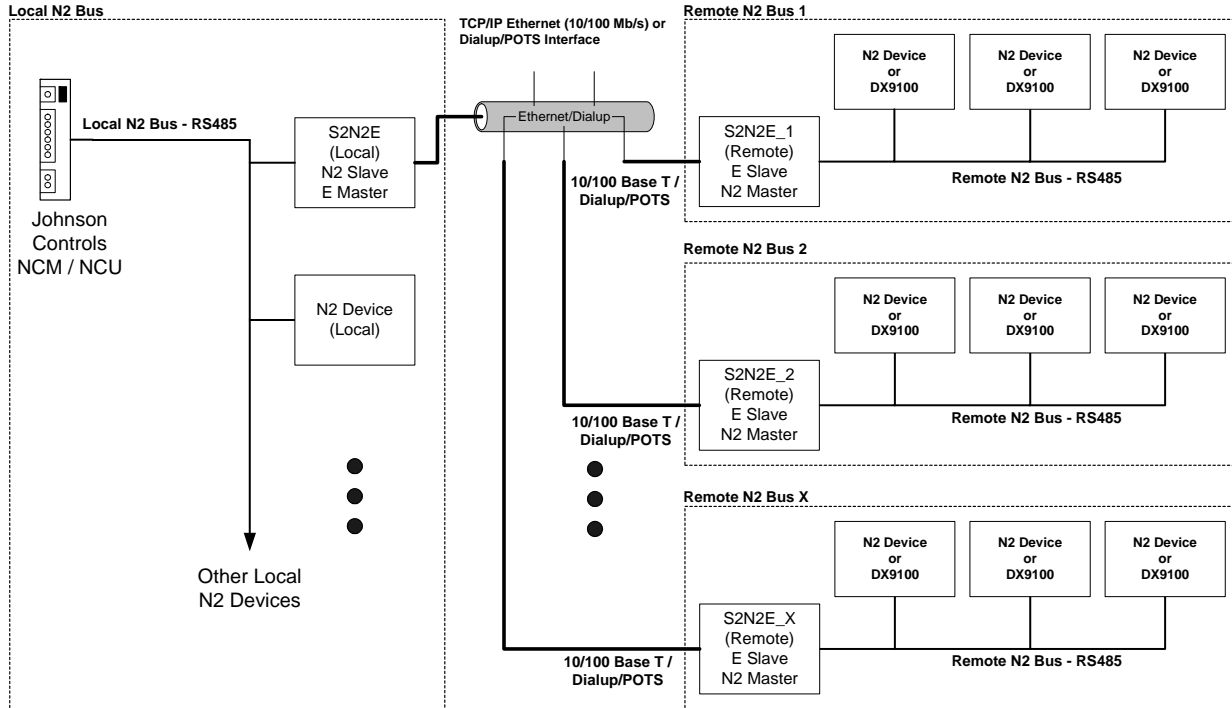


S2N2E Gateway - Transparent N2 Bus to Ethernet Gateway

Overview

The S2N2E Gateway is an interface device that acts as a Communication Bridge between a local Johnson Controls' Metasys N2 Communication Bus (N2 Bus) and multiple remotely connected N2 Buses and N2 Compatible field devices. These multiple N2 Buses/Devices can be located across the city, country, or even the World providing that they have access to a TCP/IP Ethernet connection (i.e. Corporate Intranet, Internet, etc) or a Telephone (POTS) Connection (with the addition of the Dialup/Modem daughter card).



Connection

The S2N2E bridges the Ethernet/Dialup connection transparently to both the NCM and the remote N2 devices. Two S2N2E devices are required (minimum configuration) where one device (local) acts as a N2 slave/Ethernet/Dialup Master and the other (remote) an Ethernet/Dialup Slave/N2 Master. The total link is transparent to the Metasys Operating Software, the local NCM, and the remotely connected N2 devices. Thus, remote N2 devices can be monitored and controlled by Metasys/NCM as if they were locally connected.

Configuration

Configuration and use of the S2N2E gateway is a quick and easy process. First, the Ethernet TCP/IP network or Dialup data and the remote N2 devices are added to the master and slave S2N2E Gateways using the S2N2E's PC-based configuration software (or via a dumb terminal). Next, the remote N2 device data points are added to Metasys in the same manner as if the N2 device/data point were locally connected. The system is now configured.

Specifications**Data Interfaces**

N2 Bus
 3-Pin Terminal- RS-485
 Ethernet Interface
 RJ-45 - 10 / 100 Mb/s
 TCP/IP Protocol
 Diagnostic Port
 RJ12 - RS-232C Serial

Diagnostic Indicators

General
 AC/DC Power In, Vcc1, Vcc2,
 Alive
 Ethernet
 Rx, Link, Collision, Activity, 10
 Mb/s Full/Half, 100 Mb/s
 Full/Half
 N2 Bus
 Rx/Tx Communication Activity

N2 Commands

Synch Time
 Poll Without/With Ack
 Messages
 Warm Start
 Identity Device Type
 Status Update Request
 Read /Write Analog Input
 Read /Write Binary Input
 Read /Write Analog
 Output

N2 Objects

Analog Inputs (100)
 Binary Inputs (100)
 Analog Outputs (100)

DX9100 Commands

Read / Write Single Item
 Read / Write Single Item
 – Extended
 Command Mode
 Read / Write Single
 Configuration Data Base
 Word

DX9100 Items (All DX9100 Items are supported)

General Control Modules
 Programmable Modules
 (1 to 12)
 Analog Input Module
 (1 to 8)

S2N2E Device Support

S2N2E Gateway Master
 Ten (10) S2N2E Slaves
 S2N2E Gateway Slave
 Three (3) N2 Supported Devices

N2 Protocol Support

Maximum Supported N2 Devices
 Thirty (30)
 Maximum N2 Objects
 100 AIs, 100 AOs, 100 BIs, 100
 BOs, 256 Internal Floats, 256
 Internal Integers, 100 Internal
 Bytes
 Supported N2 Devices
 UNT, VAV, AHU
 DX9100 incl XP Modules
 VND
 Other devices pending

Power requirements

Model: S2N2E-18VAC
 12 - 18 V AC/DC 60 Hz @ 400 mA
 Model: S2N2E-24VAC
 18 – 24 V AC/DC 60 Hz @ 400 mA
 Model: S2N2ED-24VAC
 18 – 24 V AC/DC 60 Hz @ 400 mA

Environment

Temperature
 0 C to +60 C
 Humidity
 10 - 95 % RH (non-condensing)
 Dimensions:
 5.75”L x 3.50”W x 1.63” H
 14.5cm L x 9.0cm W x 4.0cm H
 Mounting Options:
 DIN Rail

Read /Write Binary
 Output
 Read /Write Internal
 Parameter
 Read /Write Analog Input
 Attributes Request
 Read /Write Binary Input
 Attributes Request
 Read /Write Analog
 Output Attributes Request
 Read /Write Binary
 Output Attributes Request

Override Analog Input
 Override Binary Input
 Override Analog Output
 Override Binary Output
 Override Internal
 Parameter
 Override Release Request
 Upload/Download
 Messages (In Test)

Binary Outputs (100)
 Internal Floats (256)
 Internal Integers (256)

Internal Bytes (100)

Read / Write Single
 Configuration Data Base
 Word – Extended
 Read / Write Functional
 Modules Block
 Read / Write a
 Configuration Data Base
 Block

Read / Write a
 Configuration Data Base
 Block – Extended
 Read a Block of
 Consecutive Items
 Read a Block of
 Consecutive Items -
 Extended

Analog Output Module
 (1 to 2, 9 to 10)
 Auxiliary Analog Output
 (11 to 14)
 Digital Output Module
 (3 to 8)

Extension Module
 (1 to 8)
 Time Schedule
 (1 to 8)
 Optimal Start/Stop
 Module (1 to 2)

Part Number Ordering Information

S2N2E-18VAC S2N2E Ethernet with 18V AC/DC Input Voltage Option
S2N2E-24VAC S2N2E Ethernet with 24V AC/DC Input Voltage Option
S2N2ED-24VAC S2N2E Ethernet with 24V AC/DC Input Voltage Option with Dialup/POTS Interface Option Card