4B Group

IE-NODE (Industrial Ethernet Node 1 & 2)
Remote Sensor Monitoring Interface for PLC's & Automation Systems

APPLICATION

The Industrial Ethernet Node (IE-NODE) is a remote monitoring interface designed to provide sensor data to PLC's or other automation and control systems.

DESCRIPTION

The IE-NODE is available in two versions, both with a total of 10 sensor inputs. Version 1 has 8 contact or NTC temperature inputs, and 2 pulse or 4-20 mA (current loop) inputs. Version 2 has 10 inputs for 4-20 mA (current loop) sensors.

Both units can be expanded to 16 sensor inputs with the installation of optional expansion boards (details overleaf).

The IE-NODE operates by reading its sensor inputs and sending processed data when requested by another system (e.g. PLC). The units are equipped with an RJ45 Ethernet socket and supports PROFINET, EtherNet/IP and Modbus TCP/IP protocols for easy integration with Siemens, Allen-Bradley Rockwell, Modicon and other PLC's or automation devices.

The IE-NODE's network configurator software provides a visual view of all devices on the network. It allows for easy identification of each unit on the network and allows for network settings to be changed as needed.

The following 4B sensors are compatible with the IE-NODE (version dependent):

Temperature (Bearing & Surface) -
- ADB Series (NTC Type)
- Milli-Temp Series (4-20 mA)

Belt Misalignment -
- Touchswitch (Contact)
- Rub Block (NTC Type)

Belt Speed & Slip -
- Milli-Speed Switch (4-20 mA)
- P300 Proximity Sensor (Pulse)
- P800 Proximity Sensor (Pulse)
- M800 Elite Speed Switch (Pulse)

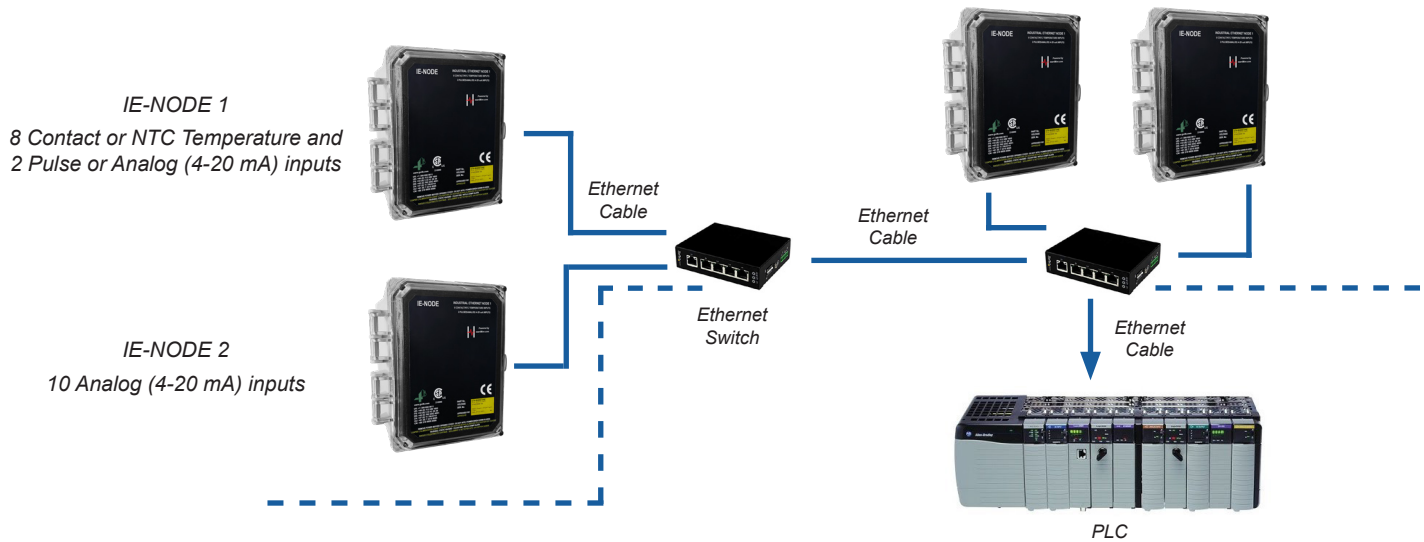## PART NUMBERS & ACCESSORIES

- ETH-NODE1V46CAI   IE-NODE 1 (120 to 240 VAC / 24 VDC)
- ETH-NODE1V4CAI   IE-NODE 1 (24 VDC)
- ETH-NODE2V46CAI   IE-NODE 2 (120 to 240 VAC / 24 VDC)
- ETH-NODE2V4CAI   IE-NODE 2 (24 VDC)
- ETH-NODE-AUXI-6NTC   NTC Expansion Board
- ETH-NODE-AUXI-6AN   Analog Expansion Board

KEY FEATURES

- Sensor Interface for PLC's & Automation Systems
- Supports PROFINET, EtherNet/IP and Modbus TCP/IP protocols
- Up to 16 Total Sensor Inputs with Available Expansion Boards
- Configurator Software for Easy Network Set Up and Visual Overview of All Devices

IE-NODE 1
8 Contact or NTC Temperature and
2 Pulse or Analog (4-20 mA) inputs

Ethernet Cable

Ethernet Cable

Ethernet Switch

Ethernet Cable

IE-NODE 2
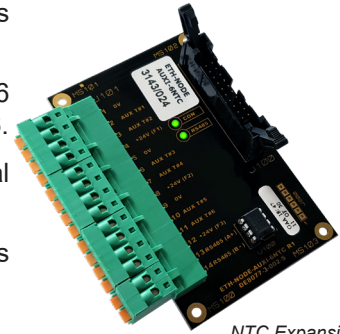10 Analog (4-20 mA) inputs

Ethernet Cable

PLC

SENSOR EXPANSION BOARDS (OPTIONAL)

Two expansion boards are available for the IE-NODE to expand total sensor inputs from 10 to 16.

1. The ETH-NODE-AUXI-6NTC expansion board allows for the support of up to 6 additional NTC temperature sensors or 6 contact sensors, or any combination of 6.

2. The ETH-NODE-AUXI-6AN expansion board allows for up to 6 additional 4-20 mA (current loop) sensors.

Both boards add the capability of an RS485 Modbus RTU connection which provides access to all onboard sensor information.

NTC Expansion Board

SPECIFICATIONS & DIMENSIONS

IE-NODE 1 & 2

Supply Voltage -	120 to 240 VAC / 24 VDC (ETH-NODExV46CAI) 24 VDC (ETH-NODExV4CAI)
Power Dissipation -	12 Watts Maximum
Sensor Supply -	24 VDC @ 800 mA (Total across Fuse 1 - Fuse 4)
Power Terminals -	14 AWG / 2.5 mm^2
Signal Terminals -	16 AWG / 2.5 mm^2
Communication Protocols -	PROFINET, EtherNet/IP and Modbus TCP/IP
Height -	9.7 in. (248 mm)
Width -	7.4 in. (188 mm)
Depth -	5.2 in. (133 mm)
Fixing Centers -	8.75 x 4 in. (223 x 102 mm)
Cable Entry -	2 Holes - 25mm Diameter (1" approx.)
Weight -	2.5 lbs / 1.1 kg
Protection -	IP66
Approvals -	CSA Class II Div 2 Groups F and G
	ATEX - IECEx ETH-NODExV4CAI Zone 21 ATEX - IECEx ETH-NODExV46CAI Zone 22

ALL DIMENSIONS IN MM

102
223
248
Ø 8 x 4

188
Ø 25 x 2
133
54

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