

## **I/A Series® Hardware Instrument Gateway**



The Instrument Gateway station on the I/A Series System network provides a connection for Foxboro 760 and 761 Series devices to the I/A Series network. Communication to the devices is performed via an Interface Unit which provides a serial multidrop link that is compatible with RS-485 format. The link supports a maximum of sixty controllers -- thirty controllers per port.

The Gateway is packaged as a non-expandable single width X Module which connects to the Mounting Structure Bus and accesses the Nodebus. Connections are made via cable connectors secured to the top or bottom of the mounting structure that houses the gateway.

The processor hardware architecture consists of the following:

- Processor
- Dynamic RAM Memory
- Nodebus Interface
- Two RS-232-C Interface I/O Port Enabled for Communications
- 8087 Numeric Coprocessor

**FUNCTIONAL SPECIFICATIONS****Processor Type**

80C86 Microprocessor with 8087 numeric coprocessor

**Memory**

32K byte EEPROM; 896K byte parity DRAM

**Protocol Capability**

Asynchronous 5 to 8 bit characters; odd, even, or no parity; 1 or 2 stop bits

**Port**

Two RS-232-C (asynchronous)

**Channel Performance**

Asynchronous I/O port at 9.6 k bits/second maximum

**Intra-system Communication.**

Redundant Nodebus

**Power Requirements**

INPUT VOLTAGE (REDUNDANT)

24 V, ac or dc (nominal)

CONSUMPTION

14.45 W (maximum); 13.23 W (average)

**Isolation**

The RS-232-C channels are isolated from the system power source. All signals for the RS-232-C are isolated at 500 V.

**Internal Diagnostics**

Self-checking performed at power-up. Runtime checks and watchdog timer function performed during operation.

**ENVIRONMENTAL SPECIFICATIONS<sup>(a)</sup>****Operating**

TEMPERATURE

0 to 60°C (32 to 140°F)

RELATIVE HUMIDITY

5 to 95% (Noncondensing)

ALTITUDE

-300 to +3,000 m (-1,000 to +10,000 ft)

**Storage**

TEMPERATURE

-40 to +85°C, (-40 to +185°F)

RELATIVE HUMIDITY

5 to 95% (Noncondensing)

ALTITUDE

-300 to +12 000 m (-1000 to +40 000 ft)

**Contamination**

Class G3 (Harsh) as defined in ISA Standard S71.04

(a) The environmental limits of this module may be enhanced by the type of enclosure containing the module. {Refer to the applicable Product Specification Sheet (PSS) which describes the specific type of enclosure that is to be used.}

**PHYSICAL SPECIFICATIONS****Mounting**

May be placed in most system mounting structures

**Mass (Maximum)**

2.2 kg (4.9 lb)

**Indicators**

Red and green light-emitting diodes (LEDs) indicate diagnostic status

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