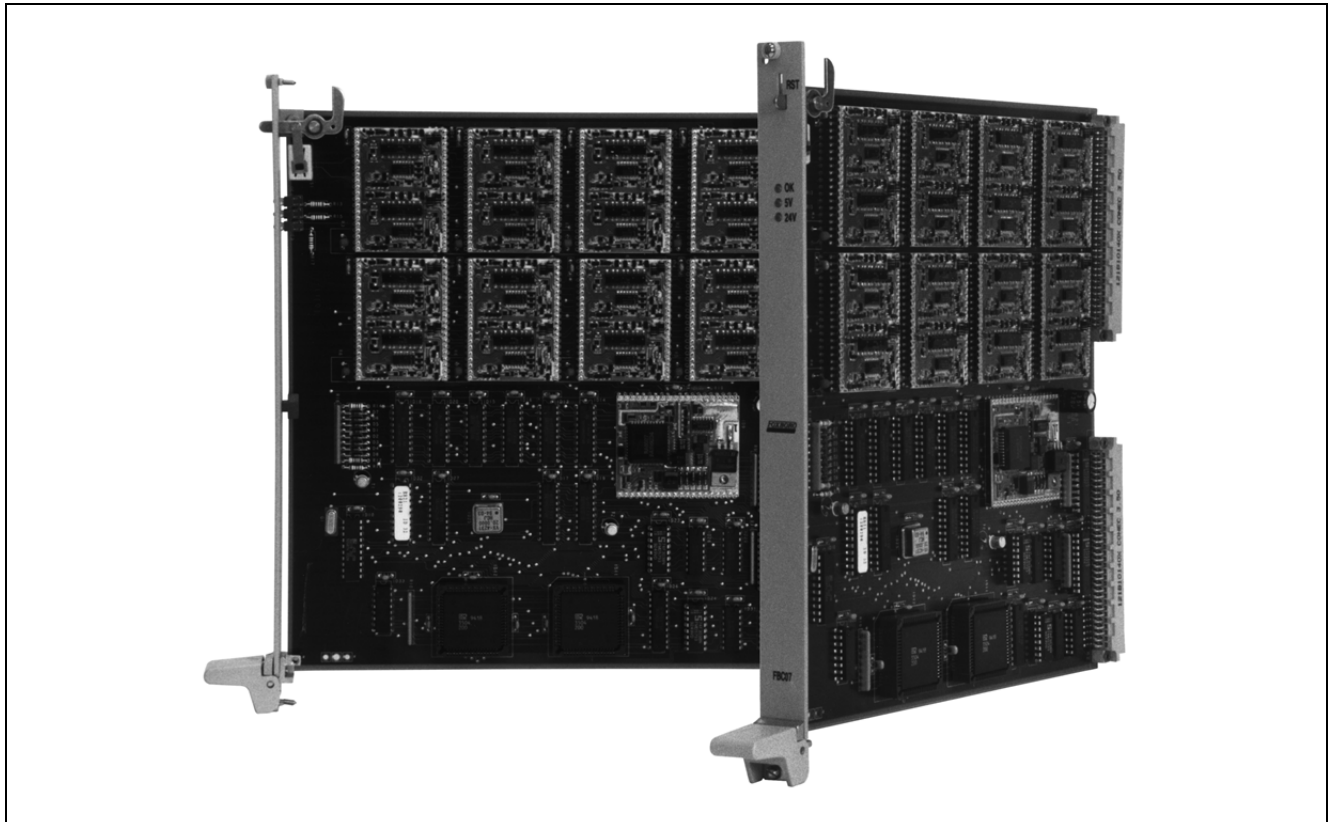


I/A Series[®] Hardware

32 Channel Digital Input Fieldbus Card: Isolated Voltage Input (FBC07A); Non-Isolated Contact Input (FBC07B)



The I/A Series Digital Input Fieldbus Card, FBC07A, consists of 32 digital voltage input channels and the FBC07B consists of 32 channel non-isolated contact inputs. The FBC07A or FBC07B perform voltage or contact sensing (i.e., on/off state) signal conversions required to interface to the I/A Series Fieldbus via the Fieldbus Processor 10 (FBP10).

The FBC07A or FBC07B mounts directly into a single slot of the Industrial Chassis 12 (ICH12) and Industrial Chassis 19 (ICH19). Signal wiring is via the discrete wire type, plug type, or ring lug type Termination Cable Assembly (TCA) connected at the rear of the chassis.

The FBC07A and FBC07B support redundant connection.

FUNCTIONAL SPECIFICATIONS

Input

INPUT CHANNELS

FBC07A

32 Isolated Voltage Inputs

FBC07B

32 Non-Isolated Contact/dc Inputs

INPUT CONNECTIONS

(Figure 1)

INPUT

Either 24 V dc or contact input

FBC07A VOLTAGE INPUT

For logic (1)

13 V < V High < 30 V

4 mA < I High < 6 mA

For logic (0)

-30 V < V Low < +5 V

0 mA < I Low < 3 mA

ISOLATION

FBC07A

500 V dc, input-to-logic, input-to-input

FBC07B

None

FBC07B CONTACT INPUT (INT. POWER SUPPLY)

Logic ZERO - Contact Open

Logic ONE - Contact Closed

CONTACT LOAD

5 mA

Power Requirements

INPUT VOLTAGE

FBC07A for Voltage Inputs

+5.25 V dc at 0.35 A

+24 V dc at 0 A

FBC07B for Contact Inputs

+5.25 V dc at 0.35 A

+24 V dc at 0.15 A

CONSUMPTION

FBC07A for Voltage Inputs

1.84 W (maximum)

FBC07B for Contact Inputs

5.44 W (maximum)

HEAT DISSIPATION

FBC07A for Voltage Inputs

1.84 W (maximum)

FBC07B for Contact Inputs

5.44 W (maximum)

Source Resistance Limits

FBC07A VOLTAGE INPUT

On-State

1000 Ω maximum at 24 V dc minimum

On-State

100 Ω maximum at 13 V dc minimum

Off-State

0 Ω minimum at 5 V dc maximum

FBC07B CONTACT INPUT

On-State

500 Ω maximum

Off-State

50 KΩ minimum

ENVIRONMENTAL SPECIFICATIONS

Operating

TEMPERATURE

0 to +70°C (32 to +158°F)

RELATIVE HUMIDITY

20 to 80% (Noncondensing)

Transportation and Storage

TEMPERATURE

-40 to +70°C (-13 to +158°F)

RELATIVE HUMIDITY

20 to 80% (Noncondensing)

Contamination

Class G1 (Mild) as defined in ISA Standard, S71.04

PHYSICAL SPECIFICATIONS

Mounting

ICH12, ICH19 Chassis, single I/O slot

Mass

0.7 kg (1.5 lb)

Field Termination Connections

Direct or Discrete Wires from External Termination Assemblies. The TCA's are discrete wire type, plug type, or ring lug type.

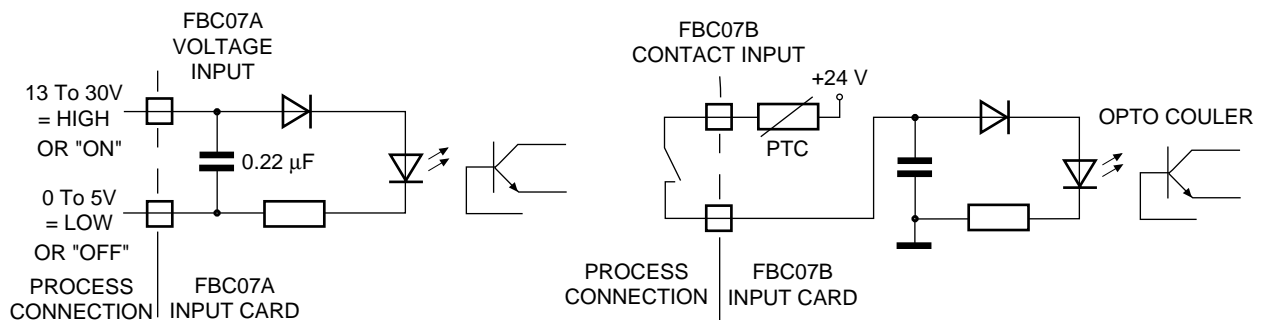


Figure 1. Input Connections

TERMINOLOGY

- Non-isolated - Each channel is referenced to ground and the card itself is referenced to ground.
- Group-isolated - Electrically separate card-to-card but not channel-to-channel on the same card.
- Isolated - Each channel is electrically separated from any other channel, card, group, building, site, etc.

The Foxboro Company

33 Commercial Street
Foxboro, Massachusetts 02035-2099
United States of America

<http://www.foxboro.com>

Inside U.S.: 1-508-543-8750 or 1-888-FOXBORO (1-888-369-2676)

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