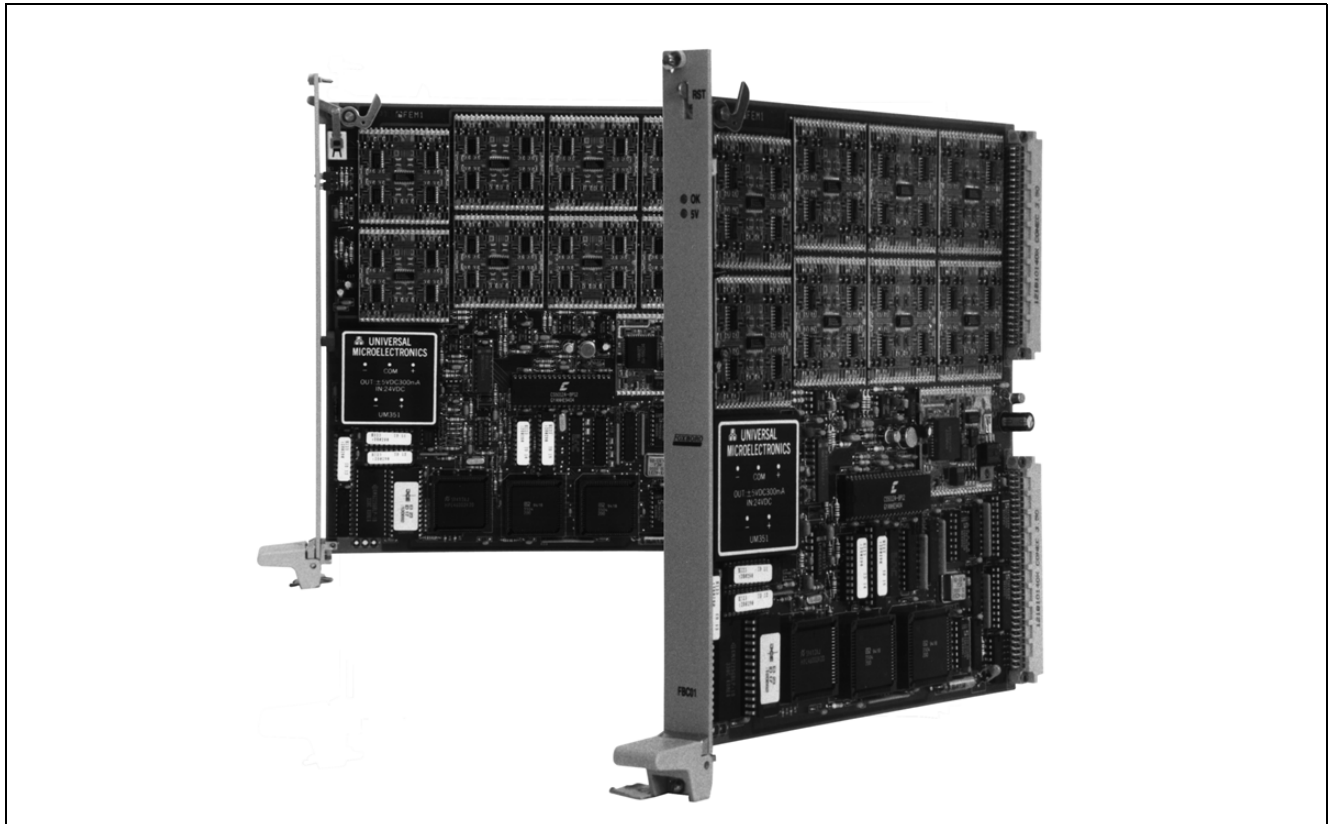


I/A Series® Hardware

32 Channel Non-Isolated Analog Input Fieldbus Card

0 to 20 mA (FBC01)



The I/A Series Non-Isolated Analog Input Fieldbus Card, FBC01, consists of 32 analog input channels for 0 to 20 mA inputs with multiplexed A-to-D conversion. Each channel accepts a 2-wire, field-powered 4 to 20 mA source. The FBC01 performs signal conversions required to interface to the I/A Series Fieldbus via the Fieldbus Processor 10 (FBP10).

The FBC01 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 FBC01 is non-isolated. The card and all of the channels on the card are referenced to ground. The FBC01 card supports redundancy.

FUNCTIONAL SPECIFICATIONS

Input	ACCURACY (AT 27°C)
INPUT CHANNELS	± 0.3%
32 Non-Isolated	TEMPERATURE DRIFT
INPUT CONNECTIONS	0.01% per K°
(Figure 1)	FILTER TIME CONSTANT
COMMON MODE VOLTAGE	Dead Time (maximum)
Inputs to ground 1 V dc	12 ms (FBC input-to-FBC output)
INPUT	Corner Frequency (-3 dB Point)
0 to 20 mA	5 Hz (approximately)
SENSE VOLTAGE	LOOP POWER (EXTERNAL POWER SUPPLY)
1 V dc at 20 mA	30 V dc maximum
EXTERNAL CURRENT SENSE RESISTOR	
50 Ω ±0.1% located in the Input Adaptor	Power Requirements
CONVERSION TIME	INPUT VOLTAGE
6 ms (approximately)	+5.25 V dc at 0.49 A
SETTLING TIME	+24 V dc at 0.085 A
0.55 sec (approximately)	CONSUMPTION
LINEARITY	+5.25 V (2.57 W)
± 0.1% (approximately)	+24 V (2.04 W)
RESOLUTION (12 BIT)	Total 4.6 W (maximum)
0.04%	HEAT DISSIPATION
	Total 4.6 W (maximum)

ENVIRONMENTAL SPECIFICATIONS

Operating	Transportation and Storage
TEMPERATURE	TEMPERATURE
0 to +70°C (32 to +158°F)	-40 to +70°C (-13 to +158°F)
RELATIVE HUMIDITY	RELATIVE HUMIDITY
20 to 80% (Noncondensing)	20 to 80% (Noncondensing)
	Contamination
	Class G1 (Mild) as defined in ISA Standard, S71.04

PHYSICAL SPECIFICATIONS

Mounting	Field Termination Connections
ICH12, ICH19 Chassis, single I/O slot	Discrete Wires from External Termination Assemblies to the Input Adaptor. The TCAs are discrete wire type, plug type, or ring lug type.
Mass	
0.7 kg (1.5 lb)	

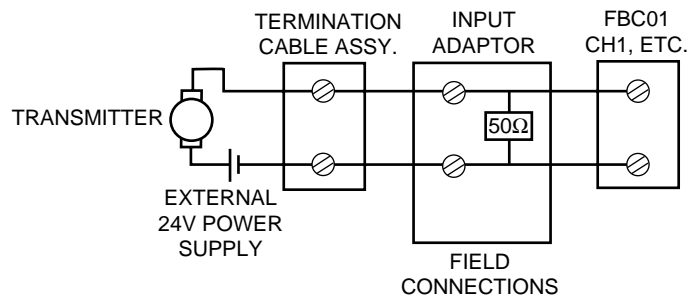


Figure 1. Input Connections

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.

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