



The BradControl™ Block I/O system provides an IP20 I/O interface solution for open network fieldbuses such as PROFIBUS®, DeviceNet™ and Ethernet. Features include expandability, high-density design & DIN rail mounting.

## Analog Input Module

8 Inputs for 0-20mA or 0-10 VDC

### Features

- Expandable in-cabinet IP20 I/O
- Comprehensive selection of digital and analog I/O interfaces
- Easy field replacement of modules
- Direct wire couplings for assembly cost savings
- Space-saving construction
- High-density design
- Ribbon cable connections between modules
- User markable identification
- LED input status
- 0-20 mA or 0-10 V measurement range
- 12 bit resolution
- Accuracy is +/- 0.5% of maximum measured value



### Overview

The BradControl IP20 Block I/O system is an effective way to connect industrial I/O devices to a PLC or PC controller over an industrial fieldbus network such as PROFIBUS. The BradControl I/O interface solution is comprised of a network adapter and up to 32 expansion modules mounted in an enclosure close to the field devices. The ribbon cable based expansion bus, which handles inter-module communication, operates at 11 Mbd, is permitted to be 6.5 meters in length, and accommodates a maximum of ten groups of modules.

A wide range of control system interface requirements are met with the availability of 24 VDC powered digital input, digital output, relay output, analog input and analog output modules.

### Analog Input Module

The BradControl analog input module uses 8 analog input channels for the recording of analog input variables, such as 0-20mA or 0-10V. One free labeling field is available for each channel.

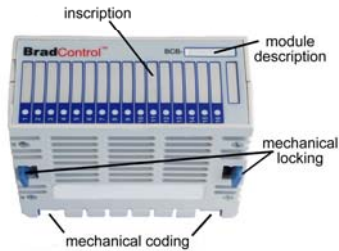
# Analog Input Module



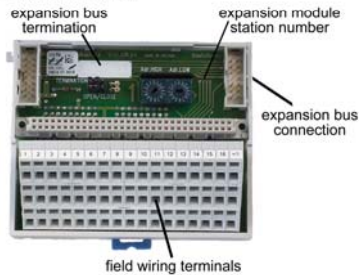
## Components

The modular I/O is a combination of the function and terminal modules.

### Function Module:



### Terminal Module:



## Hardware Specifications

Part Number	BCB-FAI-082	BCB-FAI-084
Supply Voltage	18 – 30 V DC	
Current Consumption BradControl™ bus (+5V)	40 mA typical maximum 60 mA	30 mA typical maximum 50 mA
Current Consumption Terminal Block (+24V)	≤ 85 mA	≤ 75 mA
Number of Channels	8	
Resolution ADC	12 Bit	
Transformation Time / Channel	≤ 14 μs	
Measurement Range	0 – 10 V DC	0 – 20 mA
Input Resistance	> 1 MΩ	50 Ω
Input Filter	Critical frequency 1kHz (1ms) Low pass 3 <sup>rd</sup> order	10 ms Low pass 3 <sup>rd</sup> order
Measurement Precision	± 0.5% of maximum measurement value	
Reference Output	+ 10 V, ± 1%	---
Load Capacity of Reference Voltage per Channel	2.5 mA	---
Common Mode Range	---	± 10 V
Measurement Value	0 – 4095	0 – 4000
Operating Temperature	0 – 60°C (32 - 140°F)	
Relative Humidity	0 – 95% non-condensing	

## Ordering Information

Part Number	Product Description
BCB-FAI-082	Analog input module – 8 channels, 0-10 Vdc
BCB-FAI-084	Analog input module – 8 channels, 0-20 mA
BCB-TAI-023	Terminal module for BCB-FAI-082
BCB-TAI-124	Terminal module for BCB-FAI-084

To contact us: [www.woodhead.com](http://www.woodhead.com)

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North America: US + 1-800-225-7724 - Canada, +1 (905) 624-6518

Europe: France, +33 (0)1 64 30 91 36 - Germany, +49 7252 94 96 0 - Italy, +39 026-6400321  
United Kingdom, +44 1495 356300

Asia: China, +86 21-5835-9885 - Singapore, +65 6261-6533 - Japan, +81 3-5791-4621

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