

FloBoss™ 107 8-Point AI/DI Module

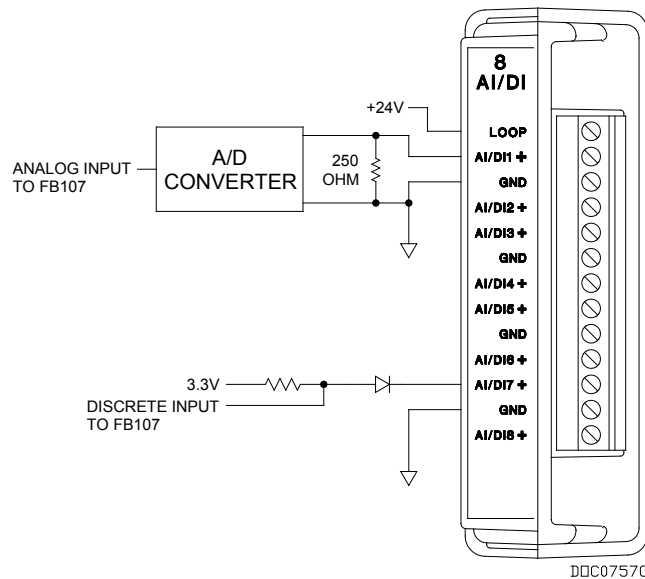
The 8-point analog input / discrete input (AI/DI) module for the FloBoss™ 107 Flow Manager (“FB107”) provides eight single-ended analog or discrete inputs. The I/O assembly mounts directly into the FB107 chassis. Use ROCLINK™ 800 Configuration Software to configure each individual channel.

You can install I/O modules in slots 1 through 3 on the main FB107 and in slots 4 through 6 on the expansion rack. When a non-I/O module is installed in slot 1, you can also install an I/O module in slot 7 of the expansion rack.

The AI/DI module provides 24 Volts dc loop output power. The intent of the loop output power is to power devices that require 24 Volts dc to ground, allowing the external device to send the FB107 a 4 to 20 mA signal based on pressure, temperature, level, and such.

A software-selectable 250-ohm resistor for 4-20 mA measurement is included as part of the circuit. You select the 250-ohm resistor in the AI configuration of ROCLINK 800 software.

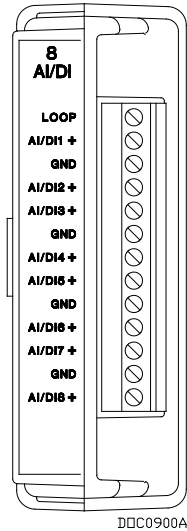
AI/DI modules have removable terminal blocks for convenient wiring and servicing. The terminal blocks can accommodate size 16 to 24 American Wire Gauge (AWG).



Internal Circuitry, 8-Point AI/DI Module

FB107 8-Point AI/DI Module

Field Wiring Terminals



Terminal	Label	Definition
1	LOOP	Loop Power
2	AI/DI1 +	Positive
3	GND	Ground
4	AI/DI2 +	Positive
5	AI/DI3 +	Positive
6	GND	Ground
7	AI/DI4 +	Positive
8	AI/DI5 +	Positive
9	GND	Ground
10	AI/DI6 +	Positive
11	AI/DI7 +	Positive
12	GND	Ground
13	AI/DI8 +	Positive

Analog Inputs

Quantity	Eight channels, individually software selectable as either an analog input or discrete input.
Type	Single-ended, voltage-sense analog inputs (software-configurable resistor for current loop).
Resolution	12 bits
Input Range	Software-configurable as 0 to 5 Vdc or 4 to 20 mA with the 250Ω resistor selected.
Isolation	None
Filter	Single-pole, low-pass.
Protection	Current limit protection on loop power output. Surge protection on all inputs.
Reference Accuracy ¹ (after calibration) at 20°C (68°F)	±0.1%
Accuracy ¹ Over Operating Temperature Range [-40 to 65°C (-40 to 149°F)]	±0.3%

Discrete Inputs

Quantity	Eight channels, individually selectable as either an analog input or discrete input.
Type	Contact-sense discrete input.
Current Rating	35 μA in the active (on) state, 0 μA in the inactive (off) state.
Isolation	None
Frequency	10 Hz maximum
Sample Period	50, 100, or 1000 ms

1. Includes: Linearity, Hysteresis, Repeatability, and Stability. Accuracy based on 1-5 Vdc (4-20 mA) operating range.

Power	
Consumption	145 mW to 3.9 watts based on load.
Loop Power	Provides 24 Vdc loop output power @ 200 mA maximum.
Physical	
Dimensions	82.55 mm H by 25.4 mm W by 127 mm L (3.25 in. H by 1.0 in. W by 5.0 in. L)
Weight	
Wiring	16 to 24 AWG at the removable terminal block.
Environmental	
Same as the unit in which it is installed.	
Approvals	
Same as the unit in which it is installed.	

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