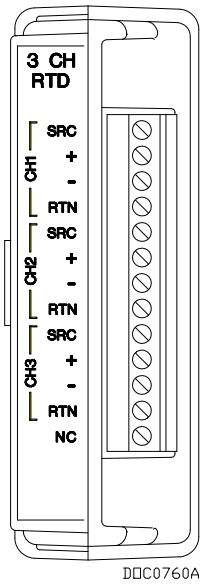
FloBoss™ 107 Resistance Temperature Device (RTD) Module

The Resistance Temperature Device (RTD) module for the FloBoss™ 107 Flow Manager (FB107) provides the FB107 with the ability to monitor various RTD sensors. An FB107 unit can support a maximum of six RTD modules.

The RTD module monitors the temperature signal from an RTD sensor within a fixed range. The RTD input module provides three channels for measuring the resistance of 2-wire, 3-wire, or 4-wire, 100-ohm, platinum RTD sensors with an alpha equal to 0.00385 Ω/Ω/°C.

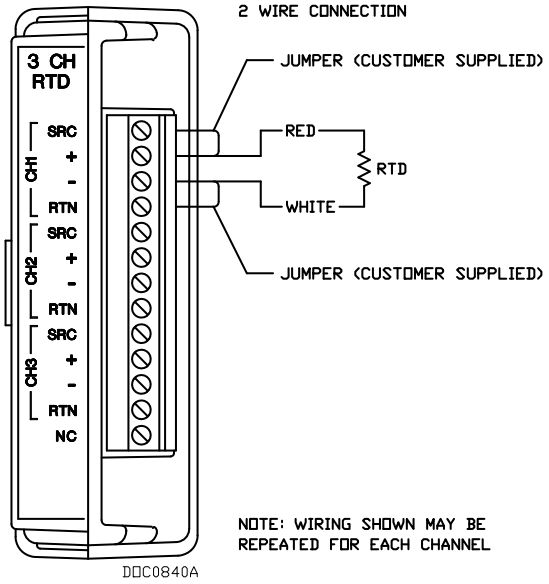
The use of surge protection techniques eliminates the need for fuses on the Input/Output (I/O) modules. This reduces maintenance for remote locations. The I/O modules are self-resetting after a fault clears.

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

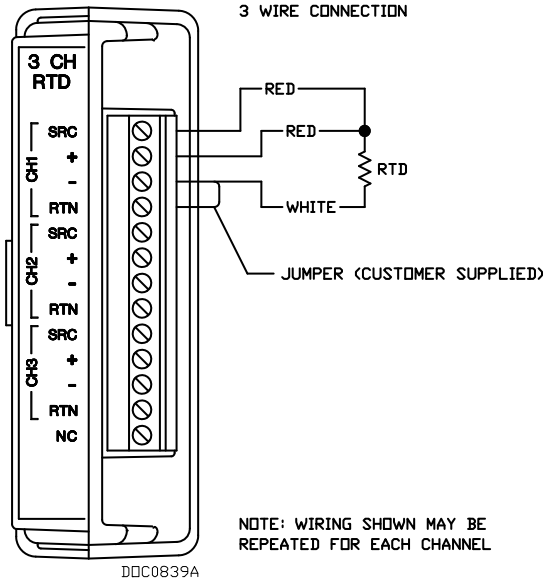


RTD Module

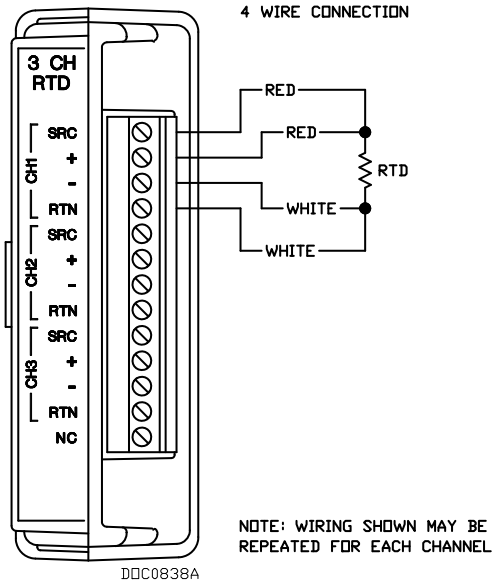
D301638X012



2-Wire Connection
Example RTD Wiring Diagram



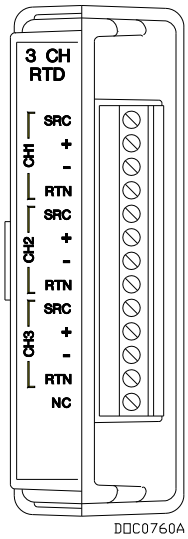
3-Wire Connection
Example RTD Wiring Diagram



4-Wire Connection
Example RTD Wiring Diagram

FloBoss 107 RTD Module

Field Wiring Terminals



Terminal	Label	Definition
1	SRC	Source
2	+	Positive
3	–	Negative
4	RTN	Return
5	SRC	Source
6	+	Positive
7	–	Negative
8	RTN	Return
9	SRC	Source
10	+	Positive
11	–	Negative
12	RTN	Return
13	NC	No Connection

Inputs

Quantity	Three channels
Type	2, 3, or 4-wire, 100 Ω, platinum type RTD, using a 24-bit A/D
Default Range	-40 to 400°C (-40 to 752°F)
Full Range Deflection	DIN 43760 standard
Temperature Coefficient	alpha of 0.00385
Fastest Scan Period	50 ms
Absolute Accuracy[1] at 25°C (77°F):	0.1% of URL after calibration
Absolute Accuracy[1] Over Operating Temp	0.38% of full scale

Power

Consumption	220 mW

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	68 g (2.4 oz.)
Wiring	Size 16 to 24 AWG at the removable terminal block

Environmental

Same as the FB107 in which it is installed

Approvals

Same as the FB107 in which it is installed

1. Absolute Accuracy Includes: Linearity, Hysteresis, Repeatability, Stability, Gain, and Offset error.

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