FloBoss™ 107 Communication Modules

Communication modules add communication ports to a FloBoss™ 107 Flow Manager (“FB107”). The FB107’s central processor unit (CPU) provides three built-in communication ports. You can add one communication module, resulting in a maximum of four communication ports per FB107.

The communication modules provide solutions to suit applications including:

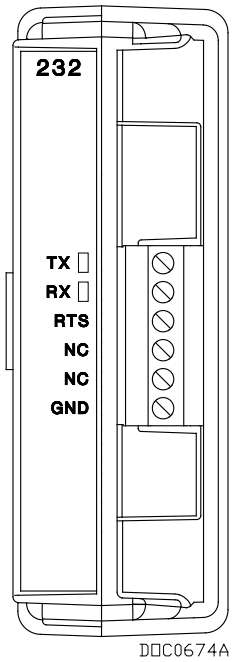
- EIA-232 (RS-232) provides point-to-point asynchronous serial communications. EIA-232 (RS-232) communications commonly provide the physical interface for connecting serial devices, such as gas chromatographs and radios. The EIA-232 (RS-232) communication module provides essential hand-shaking lines required for radio communications, including Request to Send (RTS).
- EIA-485 (RS-485) provides asynchronous serial communications for multi-drop units on a serial network over long distances using inexpensive twisted-pair cables.

Each communication module plugs into a module slot on the main FB107 unit, which provides power and control signals to activate COM3.You can install a communication module in slot 1 or 2 on the main FB107. When a communication module is installed in slot 2, the communication port (COM2) on the CPU is redirected to the type of module installed in slot 2. Use ROCLINK™ 800 Configuration Software to configure the modules.

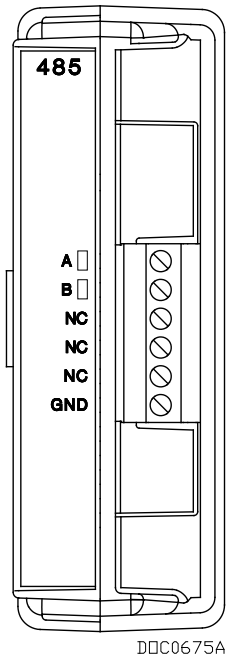
Each communication module uses a separate channel from the other modules and has a common ground (“single-ended”). The field interface protects the electronics in the module. Each module reduces the effect of noise on communication errors through filtering.

LEDs display the RX (receive) and TX (transmit) signals for the EIA-232 (RS-232) communication module. LEDs display the A (transmit/receive+) and B (transmit/receive –) signals for the EIA-485 (RS-485) communication module.

The FB107 supports communication protocols, including ROC protocol and Modbus protocol. An FB107 can act as a Modbus slave device (ASCII or RTU) or it can function as a Modbus host on COM1, 2, or 3.



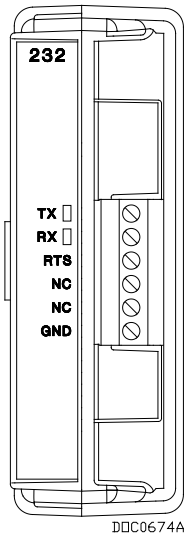
EIA-232 (RS-232) Communication Module



EIA-485 (RS-485) Communication Module

FB107 EIA-232 (RS-232) Communication Module

Field Wiring Terminals



Terminal	Label	Definition
1	TX	Transmit
2	RX	Receive
3	RTS	Request To Send
4	NC	No Connection
5	NC	No Connection
6	GND	– (Common)

Communications

Meets EIA-232 (RS-232) standard for single-ended data transmission over distances of up to 15 m (50 ft).

Data Rate	Selectable from 300 to 115.2 K baud.
Format	Asynchronous, 7 or 8-bit (software-configurable) with full handshaking.
Parity	None, odd, or even (software-configurable).
LEDs	RX (receive) and TX (transmit) signals for COM3 on the EIA-232 (RS-232) communication module.
Protocols	ROC, Modbus host and slave (RTU or ASCII).

Power

Power Requirements	30 mW, supplied by backplane.
Receive	21 mW
Transmit	50 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	90.7 g (3.2 oz.)
Wiring	16 to 24 AWG at the removable terminal block.

Environmental

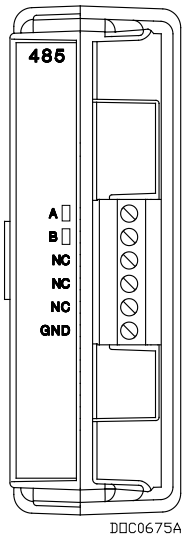
Same as the unit in which it is installed.

Approvals

Same as the unit in which it is installed.

FB107 EIA-485 (RS-485) Communication Module

Field Wiring Terminals



Terminal	Label	Definition
1	A	Receive / Transmit +
2	B	Receive / Transmit –
3	NC	No Connection
4	NC	No Connection
5	NC	No Connection
6	GND	– (Common)

Communications

Meets EIA-485 (RS-485) standard for differential data transmission over distances of up to 1220 m (4000 ft).

Data Rate	Selectable from 300 to 115.2 K baud.
Format	Asynchronous, 7 or 8-bit (software-configurable).
Parity	None, odd, or even (software-configurable).
LEDs	A and B indicate communication activity status.
Protocols	ROC, Modbus host and slave (RTU or ASCII).

Power

Power Requirements	30 mW, supplied by backplane.
Receive	27 mW
Transmit	35 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	90.7 g (3.2 oz.)
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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