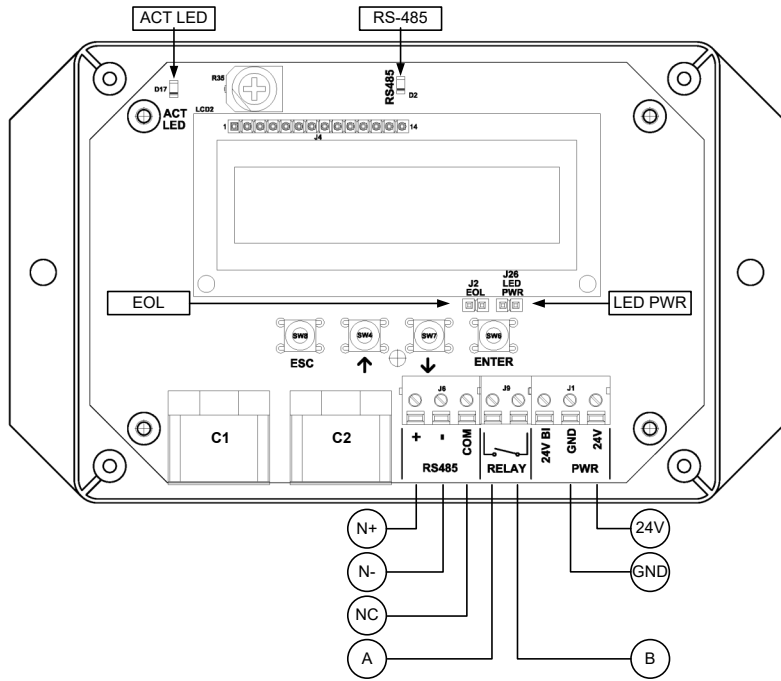


EB-FlowII EF-N2000-U WIRING GUIDE



TRANSMITTER CONNECTIONS

Single Location Configuration (Default)

Power		RS-485 (non-isolated)			Contact Closure		Connector	
24V	GND	N+	N-	NC	A	B	C1	C2
24 VAC (hot)	24 VAC (neutral)	Network +	Network -	Network Common	OUT	IN	1 probe x 1 sensor/probe	1 probe x 1 sensor/probe

Dual Location Configuration

Power		RS-485 (non-isolated)			Contact Closure		Connector	
24V	GND	N+	N-	NC	A	B	AF1	AF2
24 VAC (hot)	24 VAC (neutral)	Network +	Network -	Network Common	OUT	IN	1 probe x 1 sensor/probe	1 probe x 1 sensor/probe

INSTRUCTIONS TO INSTALLER:

1. Mount the transmitter in a location where the probe cable can reach the receptacles of the transmitter. Provide a weatherproof enclosure (by others) and mount away from direct sunlight when outdoor mounting is required.
2. Connect the sensor probes to the transmitter. Although probes are "plug and play" and connections to specific receptacles are not required, it is recommended that probes are connected Probe 1 to receptacle C1 and Probe 2, if provided, to receptacle C2. Probe numbers are indicated on each cable hang tag.

i If the transmitter will be configured for two locations, connect the probe for Airflow1 into C1 and the probe for Airflow2 into C2.

i Cables have an FEP plenum rated jacket that are UV tolerant and suitable for operation over the entire operating temperature range of the device.

! Sensor probe plugs are keyed and NOT twist-lock. Align the key and push the plug onto the transmitter receptacle. Twisting may damage the connector pins.

3. Select a 24 VAC transformer that provides 22.8 to 26.4 VAC during operation. Size the transformer for 8.5 V-A for each measurement location.

! The labeling "24V" is equivalent to "L1" and "GND" is equivalent to "L2" in many AC wiring diagrams. Do not connect "GND" to earth ground.

! Most B.A.S. systems require devices with an isolated RS-485 network. Do not connect the secondary output of the power transformer to earth ground.

! Multiple transmitters wired to a single transformer must be wired "in-phase" (24V to 24V and GND to GND).

4. EB-FlowII transmitters do not have a power switch. "Live" wiring to the power terminals is not recommended. Do not energize the transformer until power and all signal connections have been made to the transmitter.

! "Live" wiring may damage the transmitter and void warranty. Do not energize the transformer until power and all signal connections have been made to the transmitter.

5. If the RS-485 connection is required continue to step 6, otherwise skip to step 8.

6. Connect to an RS-485 network (BACnet MS/TP or Modbus RTU), if required, using a 3-conductor network cable meeting the corresponding BACnet or Modbus standards. Ensure that all three connections, N+, N- and NC are connected.

! If a 2-conductor network cable or other non-conforming cable is used, network speed, length and reliability may be compromised or network failure may occur.

7. If the transmitter is the first or last device on the network run, place the shunt jumper across the EOL posts (J2).

8. If the contact closure relay is used continue to step 9, otherwise skip to step 12.

9. If the contact closure relay is used to energize an external alarm device, such as a relay, continue to step 10. If the contact closure relay is used to drive an LED, skip to step 11.

10. Connect the "hot" wire of an external alarm device in series with relay terminals A and B. The contact closure relay is normally open (N.O.) but can be setup for normally closed (N.C.) operation. Refer to the Operations and Maintenance Manual for more information. Skip to step 12.

! The alarm device must not exceed 3 amps @ 24 VAC or 30 VDC.

11. Connect the positive (anode) side of the LED to relay output A and the negative (cathode) side to ground (PCB GND terminal preferred). Place the shunt jumper across the LED PWR posts (J26).
12. Refer to the *EF-N2000-U Startup Guide* prior to energizing power to the transformer.