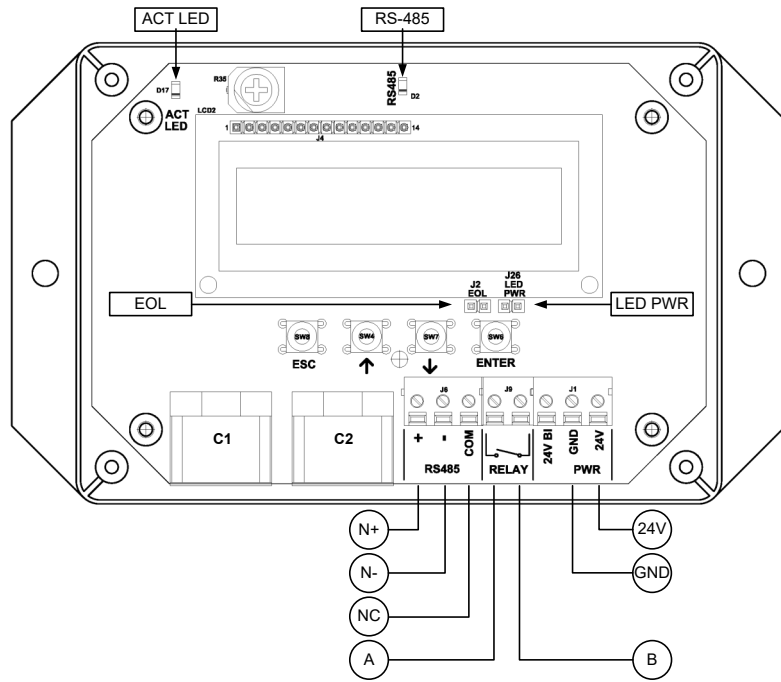


# EB-FlowII EF-N2000-T WIRING GUIDE



## TRANSMITTER CONNECTIONS

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 2 sensors/probe	Not Used

### INSTRUCTIONS TO INSTALLER:

- 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.
- Connect the sensor probe to connector C1 of the transmitter. Connector C2 is not used in this configuration.
  - 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.
- 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).
- 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.
- If the RS-485 connection is required continue to step 6, otherwise skip to step 8.
- 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.
- If the transmitter is the first or last device on the network run, place the shunt jumper across the EOL posts (J2).
- If the contact closure relay is used continue to step 9, otherwise skip to step 12.
- 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.
- 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.
- 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).
- Refer to the *EF-N2000-T Startup Guide* prior to energizing power to the transformer.