

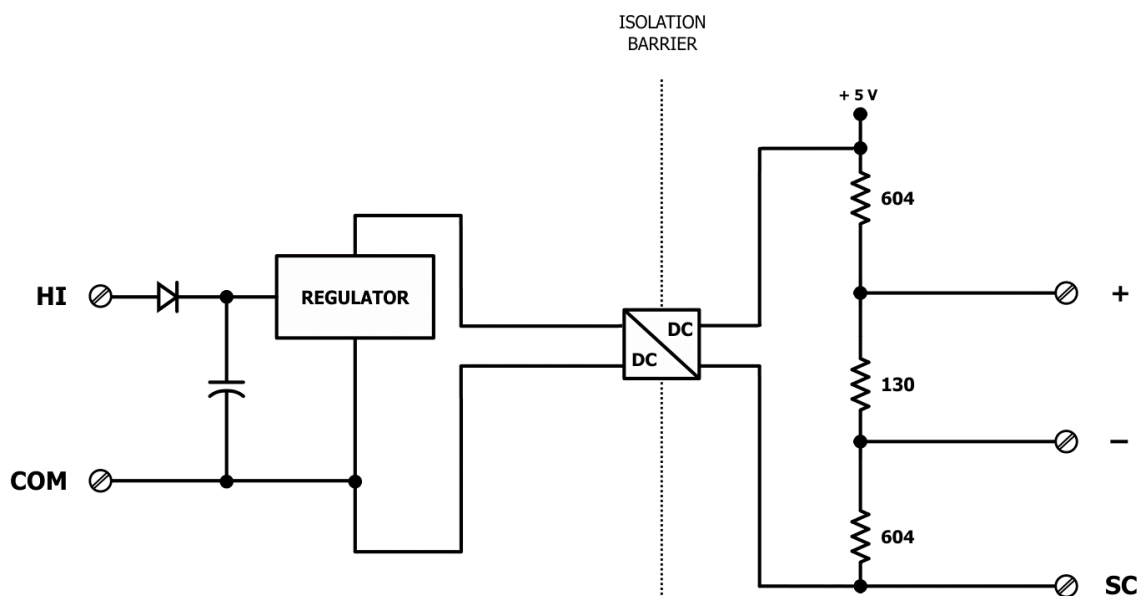
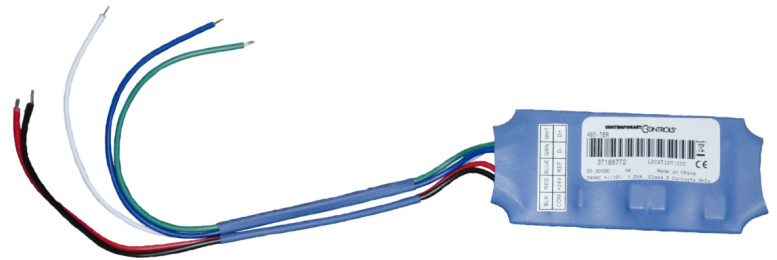


Active EIA-485 Terminator

The 485-TER is a standalone active terminator that is used on popular EIA-485 networks such as Modbus RTU and BACnet MS/TP that provide sufficient termination and biasing to the network to ensure reliable operation. Fail-safe bias ensures that an un-driven line assumes a defined state. When a head-end device does not have internal bias and termination two 485-TER devices should be installed – one at each end of the network. This will provide stability and error free communication.

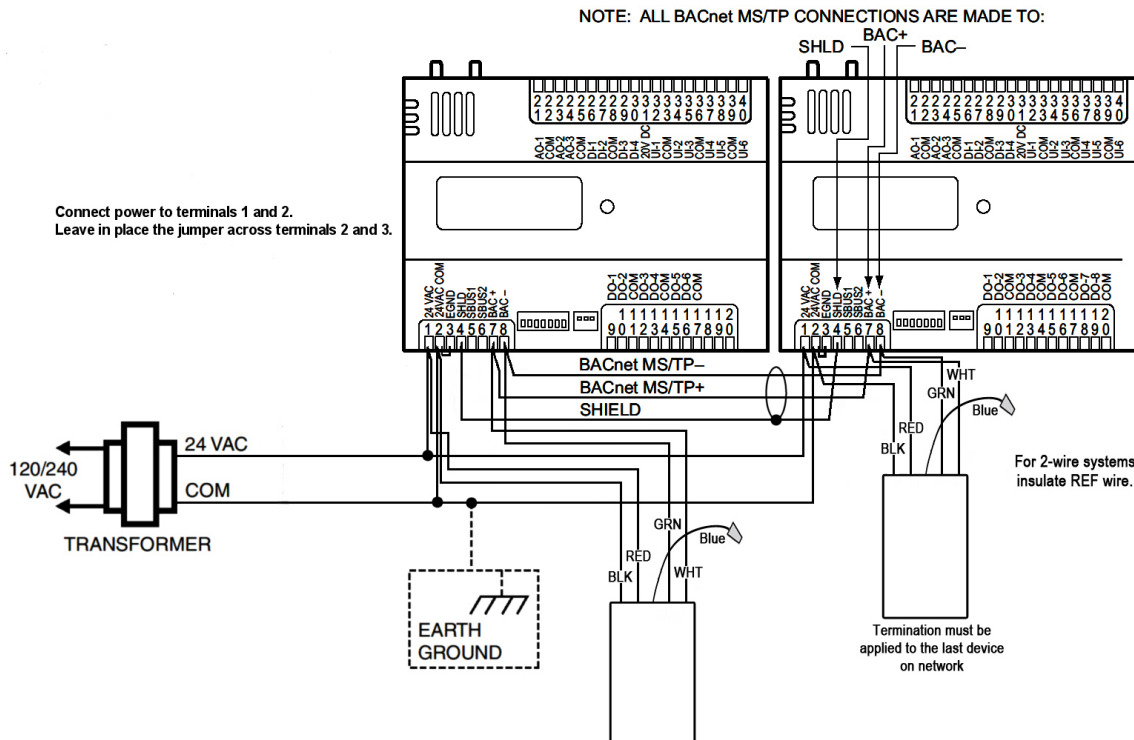
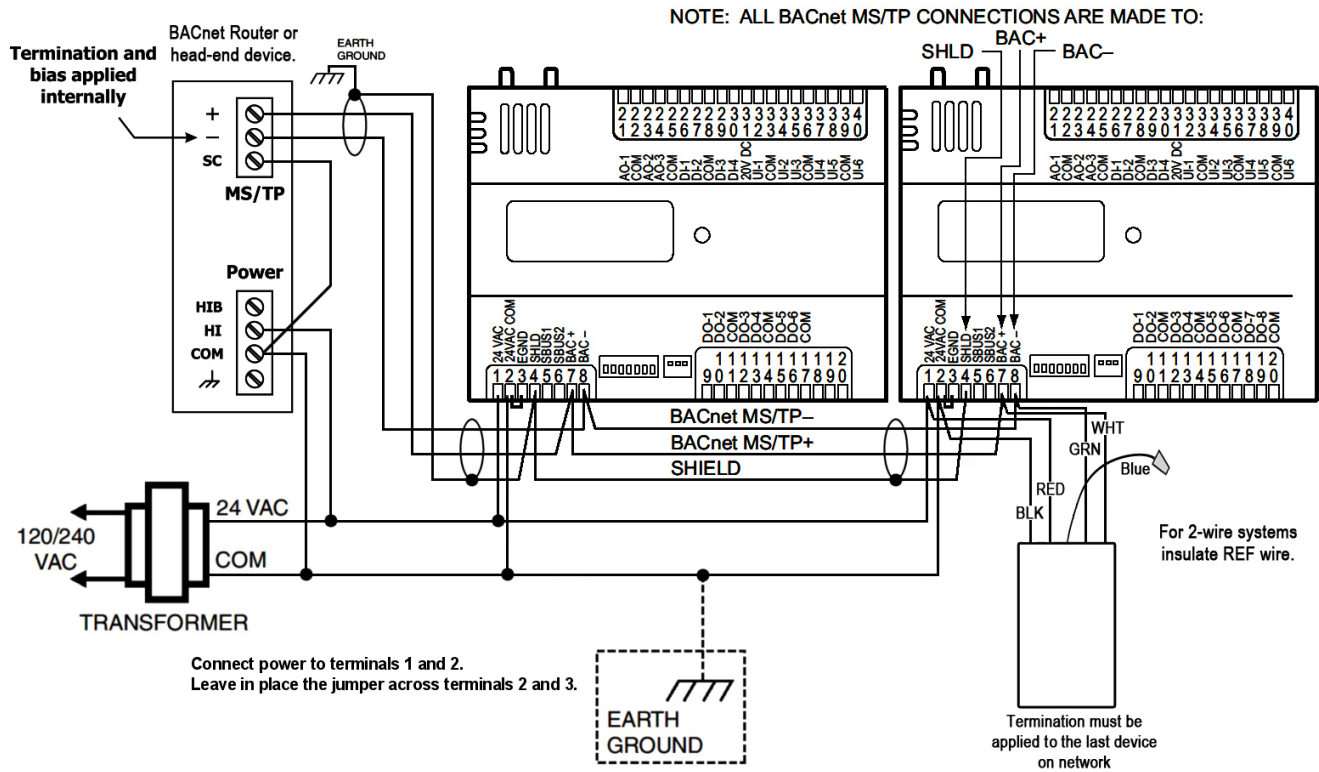
The 485-TER is a compact device that can be applied in the field quickly and easily. It comes with an isolated cover allowing it to be installed almost anywhere. The 485-TER can be installed to stabilize the physical layer of an EIA-485 network by providing the proper voltage bias (greater than 200mV) and termination (120 Ohms) to the network. The 485-TER requires 24VAC +/-10% 1VA

or 20-30VDC 0.5W power. Power can be shared with the same power source used by the controller. The 485-TER continues to provide a termination resistance of 120 Ohms to the network even when power is not provided. The 485-TER can be used with either 2-wire non-isolated EIA-485 networks or 3-wire isolated EIA-485 networks.

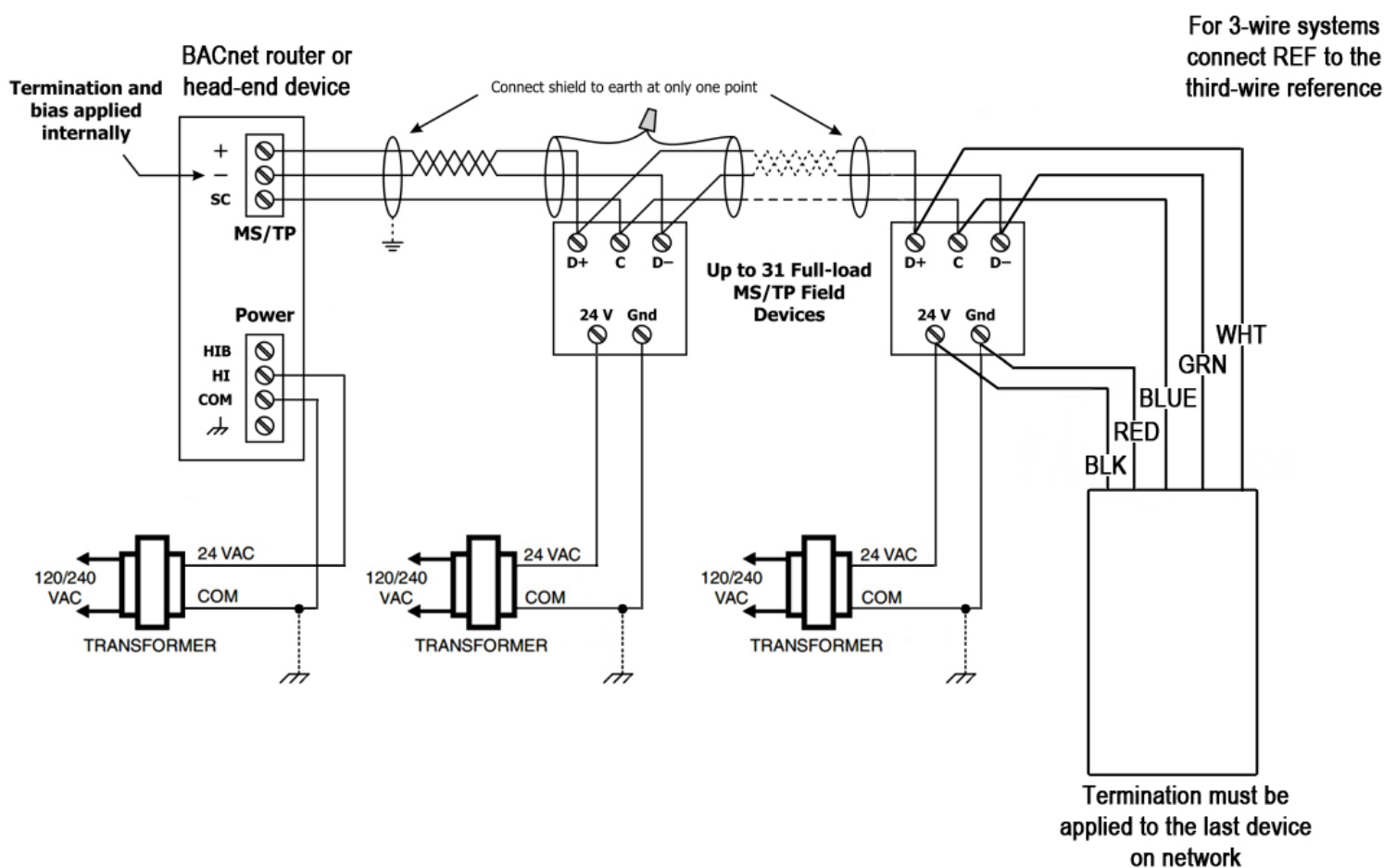


A simplified schematic of the isolated EIA-485 bias and termination circuit is shown.

Wiring Diagrams



Data Sheet – Active EIA-485 Terminator




Wire Color Chart

Pin	Function	Color
D+	Signal High	White
D-	Signal Low	Green
REF	Reference	Blue
HOT	24 VAC / VDC	Red
COM	Common	Black

Specifications

Power Requirements	24 VAC ($\pm 10\%$) drawing no more than 1.0 VA or 20-30 VDC drawing no more than 0.5 Watt
Power Terminations	Two-wire 22 AWG 8" long whip (Red 24 V Hot, and Black 24 V Com) with tinned leads
Data Terminations	Three-Wire 22 AWG 8" long whip (White D+, Green D-, blue Ref reference) with tinned leads
Isolation	500 VDC between power and data/reference
Circuit Protection	10 second protection from 24 VAC applied across the two data signals or one data signal and earth
Input Impedance	120 Ω ($\pm 10\%$)
Bias Voltage	D+ to Ref: 2.7 VDC typical D- to Ref: 2.3 VDC typical
Ambient Operating Temperature	0 to 60°C
Dimensions	2-1/2"H x 1-1/4"W x 1/2"D typical
Compliance	CE Mark

Ordering Information

Model	RoHS	Description
BAS-485-TER		Active EIA-485 terminator (package 5 pieces)

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