

T30 Sensors - AC-Voltage Series

Self-Contained, AC-Operated Sensors

For complete technical information about this product, including dimensions, accessories, and specifications, see www.bannerengineering.com and search 121523



more sensors, more solutions



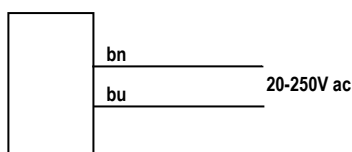
WARNING: Not To Be Used for Personnel Protection
Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death. This device does NOT include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

Models

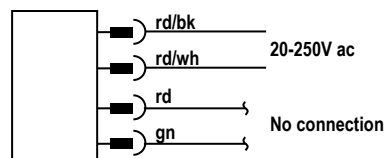
Sensing Mode	Model ¹	Output	Range	LED
 OPPOSED	T303E	-	60 m (200 ft)	Infrared, 950 nm
	T30AW3R	LO		
	T30RW3R	DO		
 POLAR RETRO	T30AW3LP	LO	6 m (20 ft)	Visible Red, 680 nm
	T30RW3LP	DO		
 FIXED-FIELD	T30AW3FF200	LO	200 mm (8 in) cutoff	Infrared, 880 nm
	T30RW3FF200	DO		
	T30AW3FF400	LO	400 mm (16 in) cutoff	
	T30RW3FF400	DO		
	T30AW3FF600	LO	600 mm (24 in) cutoff	
	T30RW3FF600	DO		

Hookups

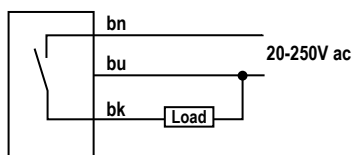
Cabled Emitters



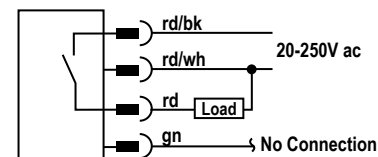
QD Emitters (4-pin Micro-Style)



All Other Cabled Models



All Other QD Models (4-pin Micro-Style)



¹ Standard 2 m (6.5 ft) cable models are listed. For 9 m (30 ft) cable: add suffix "W/30" (for example, T303E W/30). For 4-pin Micro-style integral QD: add suffix "Q1" (for example, T303EQ1). A model with a QD connector requires a mating cable.



Specifications

Supply Voltage and Current

20 to 250V ac (50/60 Hz)

Average current: 20 mA

Peak current:

200 mA at 20V ac

500 mA at 120V ac

750 mA at 250V ac

Supply Protection Circuitry

Protected against transient voltages

Output Configuration

SPST solid-state ac switch; three-wire hookup; light operate or dark operate, depending on model

Light Operate: Output conducts when sensor sees its own (or the emitter's) modulated light

Dark Operate: Output conducts when the sensor sees dark

Output Rating

300 mA maximum (continuous)

Fixed-Field models: derate 5 mA/°C above +50° C (+122° F)

Inrush capability: 1 amp for 20 ms, non-repetitive

OFF-state leakage current: < 100 mA

ON-state saturation voltage: 3V at 300 mA ac; 2V @ 15 mA ac

Output Protection Circuitry

Protected against false pulse on power-up

Output Response

Time Opposed mode: 16 ms ON, 8 ms OFF

Other models: 16 ms ON and OFF



NOTE: 100 ms delay on power-up; outputs do not conduct during this time.

Repeatability

Opposed mode: 2 ms

Other models: 4 ms

Repeatability and response are independent of signal strength

Indicators

Two LEDs (Green and Yellow)

Green ON steady: power to sensor is ON

Yellow ON steady: sensor sees light

Yellow flashing: excess gain marginal (1 to 1.5x) in light condition

Construction

PBT polyester housing; polycarbonate (opposed-mode) or acrylic lens

Environmental Rating

Leakproof design rated NEMA 6P, DIN 40050 (IP69K)

Connections

2 m (6.5 ft) attached cable, or 4-pin Micro-style quick-disconnect fitting

Operating Conditions

Temperature: -40° to +70° C (-40° to +158° F)

Humidity: 90% at +50° C maximum relative humidity (non-condensing)

Vibration and Mechanical Shock

All models meet Mil. Std. 202F requirements. Method 201A (Vibration; frequency 10 to 60 Hz, max., double amplitude 0.06 in acceleration 10G). Method 213B conditions H&I (Shock: 75G with unit operating; 100G for non-operation)

Certifications



Banner Engineering Corp Limited Warranty

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