

Wiring Diagrams (Pin numbers are for reference only, rely on pin location when wiring)

Operating Voltage	Mode/Output	Cable Models	Connector Models	
			Micro	Mini
2-Wire Sensors				
90 – 132V AC 50/60 Hz or 18 – 50V DC	All			
18 – 50V DC	All (NPN)			—
	All (PNP)			—
3-Wire and 4-Wire Sensors				
20 – 132V AC 50/60 Hz or 15 – 30V DC	Thru-Beam Source			—
	All Others			—
10 – 30V DC	Thru-Beam Source			—
	All Others (NPN & PNP)			—

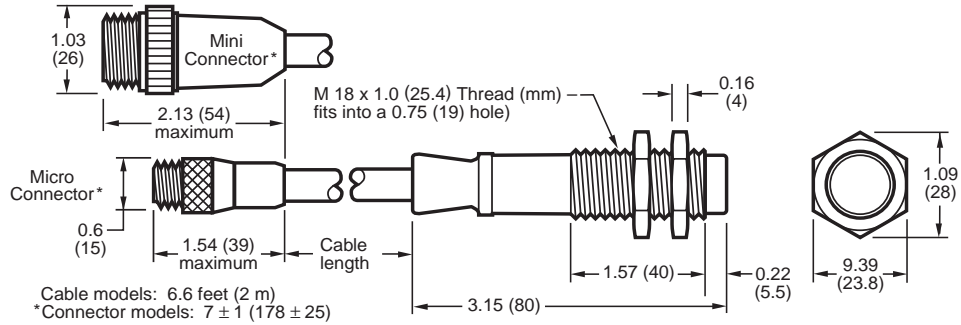
July 2005

Specifications

	4-Wire Sensors			2-Wire Sensors	
	AC/DC MODELS (AC Operation)	AC/DC MODELS (DC Operation)	DC-ONLY MODELS	AC/DC MODELS (AC Operation)	DC-ONLY and AC/DC MODELS (DC Operation)
Input Voltage	20 – 132V AC, 50/60 Hz	15 – 30V DC	10 – 30V DC	90 – 132V AC, 50/60 Hz	18 – 50V DC
Power Dissipation	3W maximum	3W maximum	2W maximum	3W maximum	3W maximum
Output Type	VMOS (bi-directional)	NPN (sink)	4-Wire: NPN and PNP (dual outputs)	18 mm models: DMOS/Bipolar; 30 mm models: DMOS	
Current Switching	300 mA maximum	300 mA maximum	PNP: 100 mA maximum NPN: 18 mm models: 250 mA maximum; 30 mm models: 100 mA maximum	18 mm models: 100 mA; 30 mm models: 300 mA	
Voltage Switching	186V peak maximum	186V peak maximum	30V DC maximum	186V peak maximum	50V DC maximum
Off-State Leakage	250 μ A typical: 500 μ A Max.	250 μ A typical: 500 μ A Max.	10 μ A maximum	1.7 mA maximum	18 mm: 1.7 mA maximum 30 mm: 1.5 mA maximum
Surge Current	2A maximum	2A maximum	1A maximum	1A AC	1A DC
On-State Voltage Drop	—	1.8V at 10 mA 4.0V at 300 mA	NPN: 1.2V at 10 mA; 18 mm models: 2.0V at 100 mA; 30 mm models: 2.0V at 250 mA; PNP: 2.8V at 100 mA	10V AC rms	18 mm models: 10V DC 30 mm models: 8V DC
Response Time	10 mS	2 mS	18 mm models: 1 mS; 30 mm models: 1.6 mS	35 mS	35 mS
Short Circuit Protection	Sensor will turn off immediately when a short or overload is detected (indicator LED will flash). Turn power OFF and back ON to reset. Sensor will reset when short is removed.			Auto reset	Auto reset
Operating and Storage Temperature Range	-40° to 131°F (-40° to 55°C)			18 mm models: -40° to 158°F (-40° to 70°C) 30 mm models: -10° to 131°F (-25° to 55°C)	
Enclosure Material	Cable Jacket: PVC (poly vinyl chloride) Indicator Ring: PVDF (high-density fluorinated polymer) Seals: Viton (registered trademark of Dupont) Lens Cover: Thru-Beam and Perfect Prox® models: Tempered Glass (or hard-coated polycarbonate for models ending in FC or FSC) Polarized Reflex models: Glass (or cast acrylic for models ending in FC or FSC) Body: 303 Stainless Steel (or 316 Stainless Steel for models ending in FC or FSC)				
Cable Versions	2 meter cable length				
Connector Versions	Male mini and micro connectors on 7" pigtail (refer to model selection for number of pins per model)				
Vibration and Shock	Vibration: 30g over 20 Hz to 2 kHz; Shock: 100g for 3 mS 1/2 sinewave pulse				
Indicator LED	Thru-Beam Source: Lights when power is ON; All other models: Lights steady when output is ON, flashes when short circuit protection is in latch condition (except 2-wire models)				
Sunlight Immunity	Perfect Prox®: 5,000 foot-candles Others: 10,000 foot-candles				
Enclosure Ratings	NEMA 1, 2, 3, 3R, 3S, 4, 4X, 6, 6P, 12, 12K and 13; This product is suitable for high temperature, high pressure washdown (1200 psi).				
Chemical Resistance	This product was designed to withstand chemicals commonly used in the automotive, machine tool, food processing and forest industries. Consult Eaton's Cutler-Hammer Sensor Applications Department at 1-800-426-9184 for information on resistance to specific chemicals				

Approximate Dimensions in Inches (mm) Except Where Noted

**18 mm Diameter
(Threaded Model Shown)**



**30 mm Diameter
(Threaded Model Shown)**

