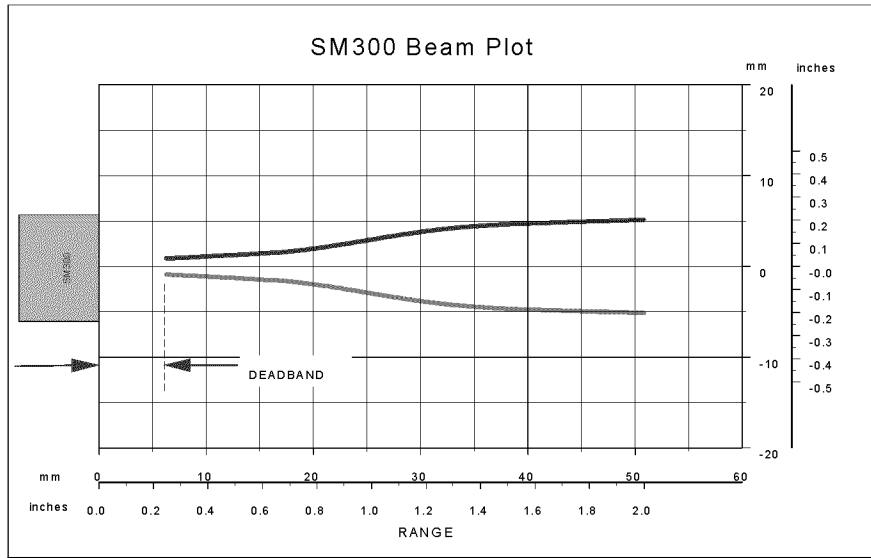


Beam Plot

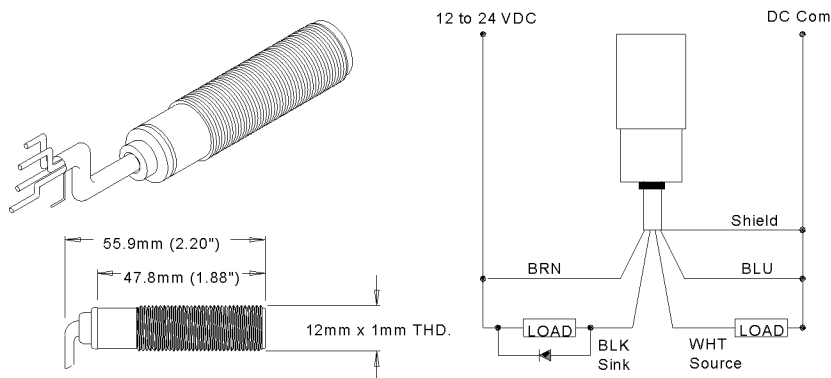


Mounting / Alignment

Mount the sensor such that the surface of the object to be detected is approximately centered within the sensor's sensing field. Mount the sensor firmly to avoid vibration. The sensor face should be parallel to the liquid or material surface and free of air currents.

For best results in sensing small objects, for sensors with a Far Limit more than 38.1 mm (1.50 in.), mount the sensor about 38.1 mm (1.50 in.) away from the object

Wiring Connections, Cable Model



Indicator LED's

Amber LED: ON when object is sensed
Green LED: ON when object is not sensed

Accessories

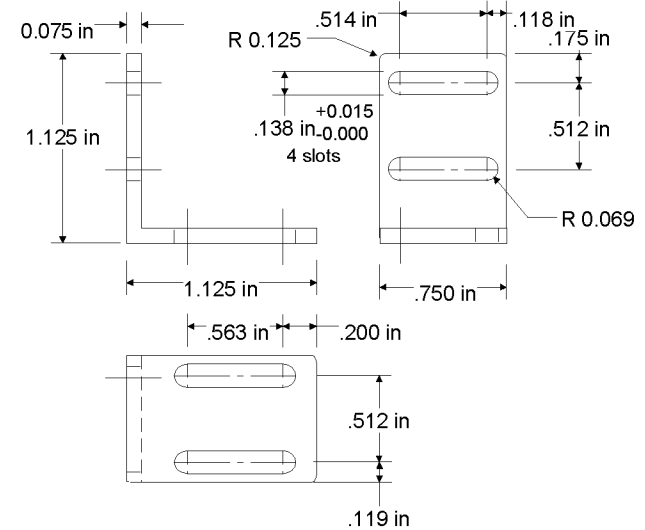
Model AC246

Mounting Bracket, Right Angle

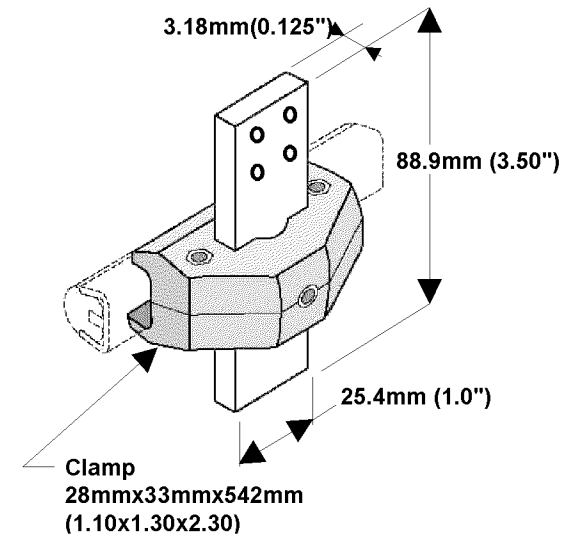
Model AC247

Conveyor Rail Clamp/Bracket Set

Mounting Bracket Dimensions



AC246 - Right Angle Bracket



AC247 - Conveyor Rail Clamp / Bracket

General Specifications

Power Supply:

Supply: +12 to 24 VDC @ 25 mA max. (excluding output load)
Protection: ESD and reverse-polarity

Sinking Output:

Maximum on-state voltage drop: 0.75 V @ 100mA
Maximum load current: 100 mA
Maximum applied voltage: 30 VDC
Protection: ESD and over-current

Sourcing Output:

Maximum on-state voltage drop: 1.10 V @ 100mA
Maximum load current: 100 mA
Maximum output voltage: Supply voltage -1.10 volt @ 100mA
Protection: ESD and over-current

Response Time:

4 mS on / 4 mS off

Operating Temperature:

-30°C to 70°C (-22°F to 152°F) @ 12V Supply
-30° to 65°C (-22°F to 149°F) @ 24V Supply

Sensing: [T_A=20°C (68°F)] -Large Flat Target

Range: 127.0 mm (5.00 in.)
Field: 50.8 to 101.6 mm (2.00 to 4.00 in.)
Maximum plane-reflector angle: ± 10°
Sonic Cone Angle: See beam plot
Window-edge accuracy: ± 1.57 mm (0.062 in.)
Minimum object size Rod: 2.5 mm (0.098 in) at 38.1 mm (1.50") range, 0° tilt
Large Flat Object: 1.0 mm (0.039 in) at 38.1 mm (1.50") range, 0° tilt

Sensor Dimensions:

Threads: 12 mm x 1 mm
Length: 55.9 mm (2.20 in.)

Sensor Cable Length:

3 Meters (10 Ft.) Standard

Sensor Materials:

Housing: PEI
Transducer face: Epoxy
Cable: Non-toxic PVC jacket
LED: Polycarbonate

Sensor Ratings and Approvals:

Installation/Overvoltage Category: NEMA 5, 12, 12K, 13, and IP67

II

CE Mark Compliant:

Declaration of conformity available upon request.

SUPERPROX[®]

SM302A-432-10

Hyde Park
Sensors for the Real World

Pump-In Latch Sensor, Ultrasonic

Normally Open Outputs

Near Limit at 50.8 mm (2.00 in.), Far Limit at 101.6 mm (4.00 in.)

OPERATOR INSTRUCTIONS

This Hyde Park self-contained, ultrasonic, pump-in latch is capable of detecting most objects within a fixed 31.8 to 127.0 mm (1.25 to 5.00 in.) sensing range (Fig.1). Objects that are transparent, opaque, plastic, glass, metal, liquid or solid can be detected if located within the sensing range

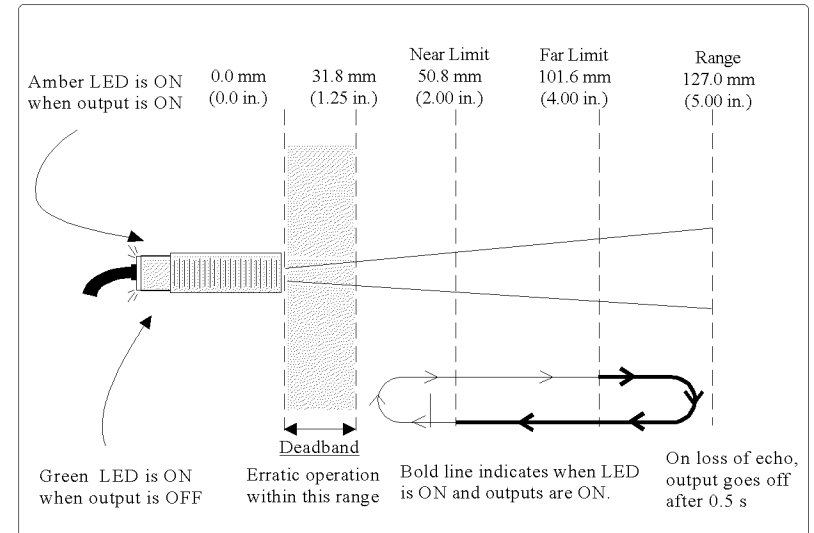


Figure 1

LIMITATIONS AND EXCLUSION OF WARRANTIES

All goods purchased from Hyde Park Electronics LLC shall be free from defects in materials, design and workmanship under normal conditions of use for one year from the date of shipment. THIS WARRANTY IS THE SOLE WARRANTY AND IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. THE LIABILITY OF HYDE PARK TO ANY PURCHASER SHALL BE LIMITED EXCLUSIVELY TO THE COST OF REPLACEMENT OR REPAIR OF DEFECTIVE PARTS, AND SHALL NOT INCLUDE LIABILITY FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER, WHETHER FORESEEN OR UNFORESEEN, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST SALES, OR INJURY TO PERSONS OR PROPERTY.

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Literature and application engineering assistance are provided by Hyde Park and its authorized distributors to aid the customer in selecting the product for an application. The customer, however, is responsible for determining the suitability of the product in the application.

⚠ WARNING

UNINTENDED OPERATION

Do not use this product to detect objects within the deadband.

Failure to follow this instruction can result in death, serious injury or equipment damage.