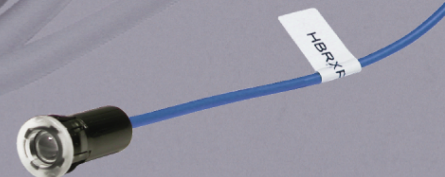




MPD

MEMORY PROTECTION DEVICES

IR Safety Sensor Beams



IR Safety Sensor Beams are general purpose IR sensors, with particular uses in entrance, elevator, and escalator applications. They effectively reduce the risk of accidental harm that results from obstructing a mechanical device. With a quick and easy install and an emphasis on safety the IR sensor beams are suitable for a wide variety of both indoor and outdoor applications.

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IR Safety Sensor Beams Series



The hold beams act as an obstruction or proximity detection sensors for a machine or system. Example applications include motorized garage door, gate, or window shade obstruction detection. These applications typically require UL325 compliance. The hold beams have UL325 compliance in UL File E325114. Manufacturers of equipment or machines that would use the hold beams in a UL325 application would need to know the UL "E" File number.

Other applications include proximity sensing in machinery or automated production line equipment. Machinery may be required to comply with safety standard NFPA-79, The Electrical Standard for Industrial Machinery. The hold beams comply with UL60947-1 and UL60947-5-2 which demonstrate compliance with the requirements of NFPA-79. The UL File number is E517822. Manufacturers of equipment or machines that would use the beams in an NFPA 79 factory automation or machinery application would need to know the UL "E" File number.



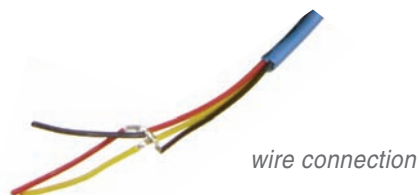
***Note that at this time the hold beams are certified by UL to UL60947 in **category NRKH** as a proximity detection sensor. The hold beams are **not currently certified** in NFPA 79 safety applications where a risk of personal injury could occur, such as **a light curtain** (category NIOZ.)

Transmitter Models: Emits Infrared Light

HBTX15, HBTX15CON. The only difference between the transmitters is that the HBTX15CON part has a 3 pin connector and HBTX15 has loose wires to connect to.



3 pin connector



wire connection

Through-beam Infrared Sensors

Hold Beam Series, TX and RX



- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The “quick install” enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.

Available Configurations

Part #	Tx/Rx	Output	Contact	Termination
HBTX15	Transmitter	N/A	N/A	Wire Leads
HBTX15CON	Transmitter	N/A	N/A	Connector
HBRXNO15	Receiver	NPN	Normally Open	Wire Leads
HBRXNO15CON	Receiver	NPN	Normally Open	Connector
HBRXNC15	Receiver	NPN	Normally Closed	Wire Leads
HBRXNC15CON	Receiver	NPN	Normally Closed	Connector
HBRXPO15	Receiver	PNP	Normally Open	Wire Leads
HBRXPO15CON	Receiver	PNP	Normally Open	Connector
HBRXPC15	Receiver	PNP	Normally Closed	Wire Leads
HBRXPC15CON	Receiver	PNP	Normally Closed	Connector

NOTE: Transmitter and Receiver ordered separately

General Specifications

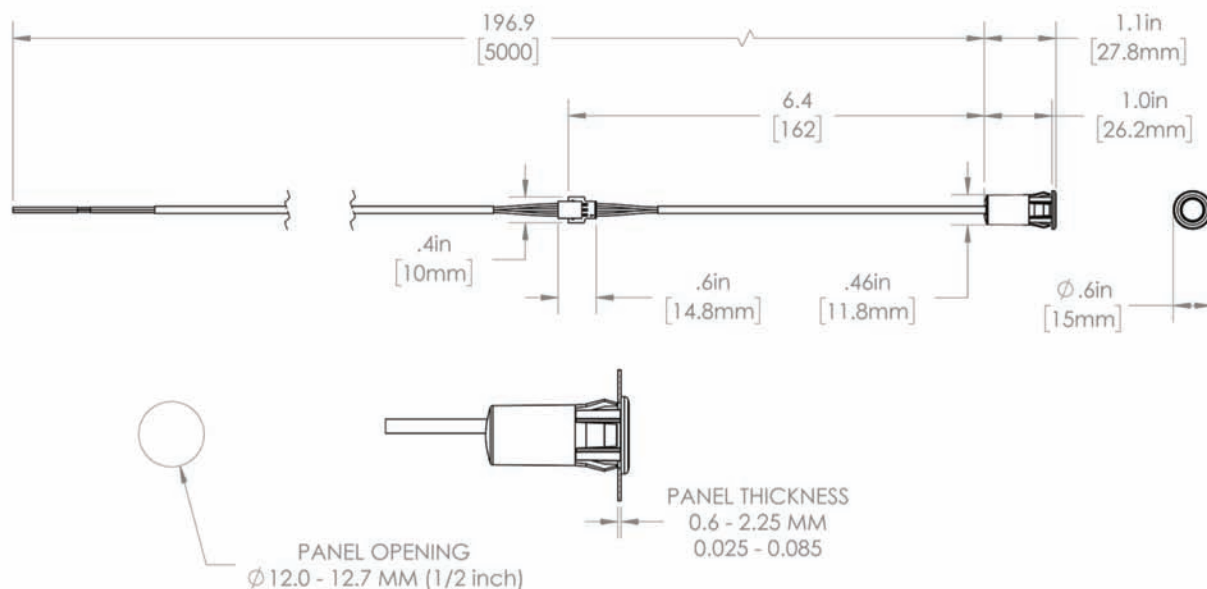
Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947-1-13 CSA C22.2 No 60947-5-2-14 RoHS, REACH Compliant
Patents	#10,386,226 #10,627,286

Emitter Specifications

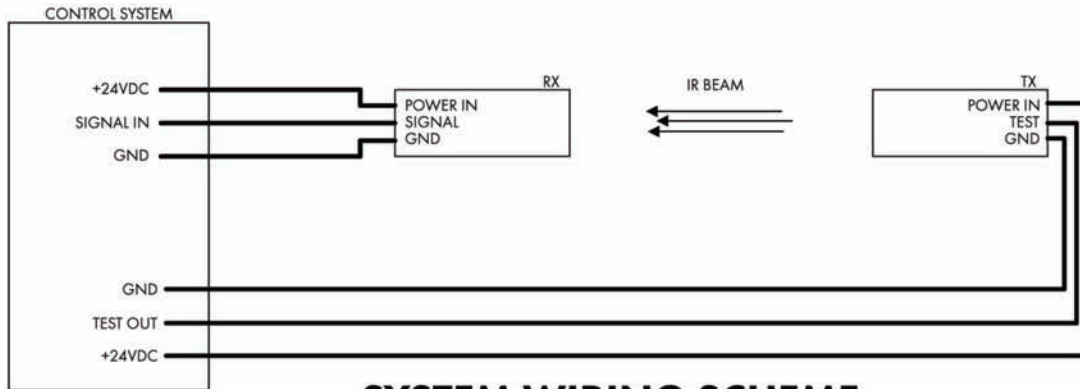
Rated Operating Voltage	10-30 VDC
Supply Current	≤ 20 mA
Light	
Source	IR LED, 950nm
Type	IR, Modulated
Spot	950 mm @ 10m
Ring Indicator	
Normal operation	Green, on continuous
Mute function	Green flash

Receiver Specifications

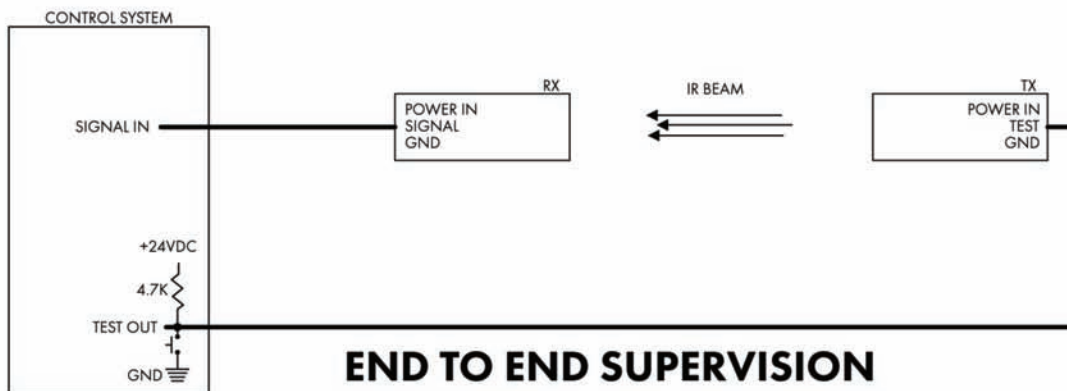
Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m
Ring Indicator	
Receiving Signal	Amber, on continuous
Signal Loss	Off



Specifications subject to change without notice (9652-401 Rev 1)

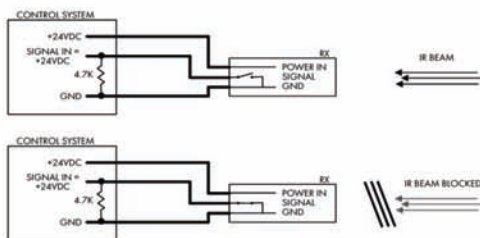


SYSTEM WIRING SCHEME

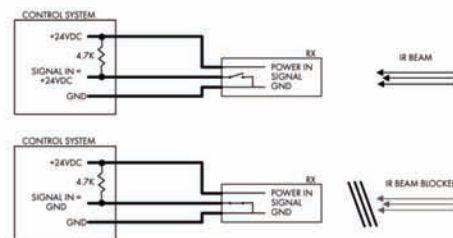


END TO END SUPERVISION

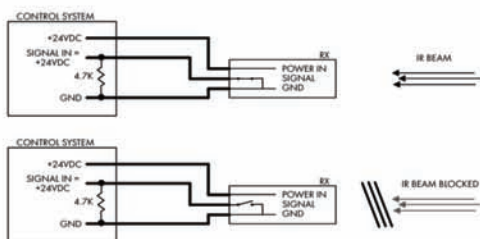
STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



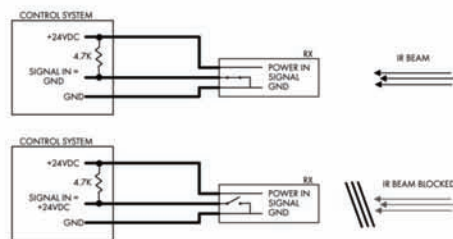
P TYPE - NORMALLY CLOSED



N TYPE - NORMALLY CLOSED



P TYPE - NORMALLY OPEN



N TYPE - NORMALLY OPEN

Safety Sensor IR Beams Advantages



Application Features:

- UL 325 Tested (garage door and pedestrian gate applications)
- 15M Long Range Sensing Distance (large opening applications)
- Weather insulated design (IP67 and potted for outdoor applications)
- Patented Reflection Rejection technology (excellent in sunny applications)
- Noise Immunity (RF shielding)

Functional Features:

- Patented LED alignment identification (makes installation easier)
- Quick-connect wires (makes field replacement easy)
- Can be mis-aligned up to 5 degrees and still function
- NPN, PNP, NO, and NC options
- 15m Sensing distance
- 10-30 VDC Modulated Infrared

Mechanical Features:

- Impact resistant plastic (less breakage in the field)
- UL2547 Wires (Suitable to install in aluminum frame)
- Quick install design features (plastic features on housing for press fit installation)
- 15ft in cable length
- Cylindrical Polycarbonate housing
- Optional Connector
- Mounting Bracket options available

Unique Features:

The hold beams we have developed employ a unique feature as compared to that of our competitors:

When the hold beams are aligned, and there is no obstruction, the receiver emits a continuous amber light to indicate that status to the installer. If there is a signal loss due to an obstruction, or if the beams are misaligned, the amber light will be turned off. This is a troubleshooting aid. Conversely, the emitter utilizes a green light that is continuously on during normal operations. When the "mute" function is engaged the green light will flash.

Competitors' receivers illuminate an LED in the side of the receiver, that is in a plane perpendicular to the front cover. This means that after installation in a door jamb, an installer cannot see the light and must either remove the receiver from the door jamb or troubleshoot in a different, more difficult way. MPD's units alleviate any such line-of-sight complications.



IR (Infrared) Receiver Safety Sensors (detect infrared light)



HBRXPC15CON

PNP Normally Closed Hold Beam Receiver with 3 Pin Connector

closed beam



HBRXNC15

NPN Normally Closed Hold Beam Receiver with Wire Connection

closed beam



HBRXNC15CON

NPN Normally Closed Hold Beam Receiver with 3 Pin Connector

closed beam



HBRXPC15

PNP Normally Closed Hold Beam Receiver with Wire Connection

closed beam



IR (Infrared) Transmitters (emit infrared light)



HBTX15

Hold Beam Transmitter with Wire Connection



HBTX15CON

Hold Beam Transmitter with 3 Pin Connector



IR (Infrared) Receiver Safety Sensors (detect infrared light)



HBRXPO15CON

PNP Normally Open Hold Beam Receiver with 3 Pin Connector



open beam



HBRXNO15

NPN Normally Open Hold Beam Receiver with Wire Connection



open beam



HBRXNO15CON

NPN Normally Open Hold Beam Receiver with 3 Pin Connector



open beam



HBRXPO15

PNP Normally Open Hold Beam Receiver with Wire Connection



open beam



The MPD HBRX series is a family of general purpose IR Sensors and Receivers. The "quick install" enclosure makes setup simple – just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.

IR Safety Sensors Features:

- Entrance, elevator and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved
- Ship qty.: 500 or 1,000 (in 100 pc. bags)

HBRXNC15CON

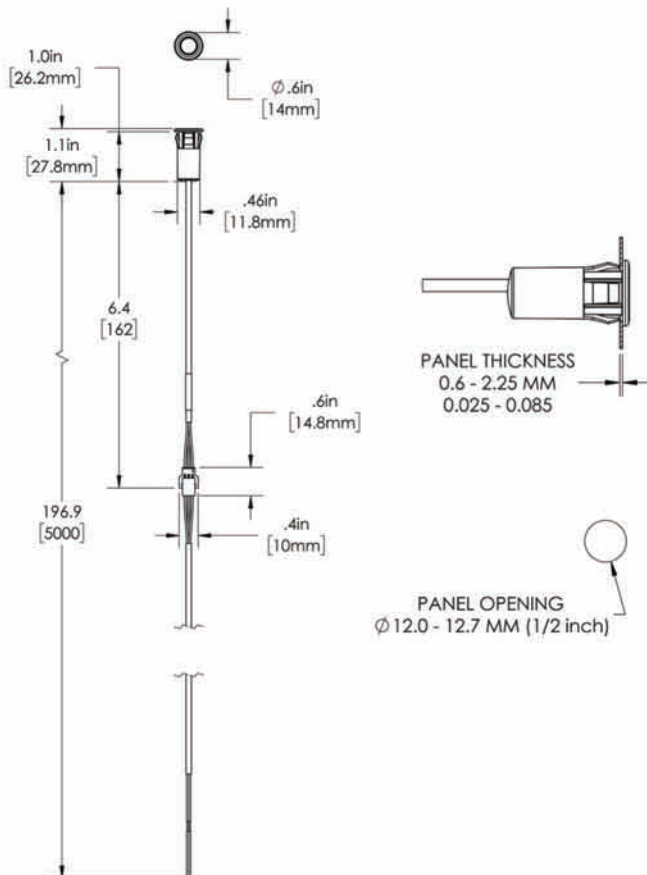
NPN Normally Closed Hold Beam Receiver



- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



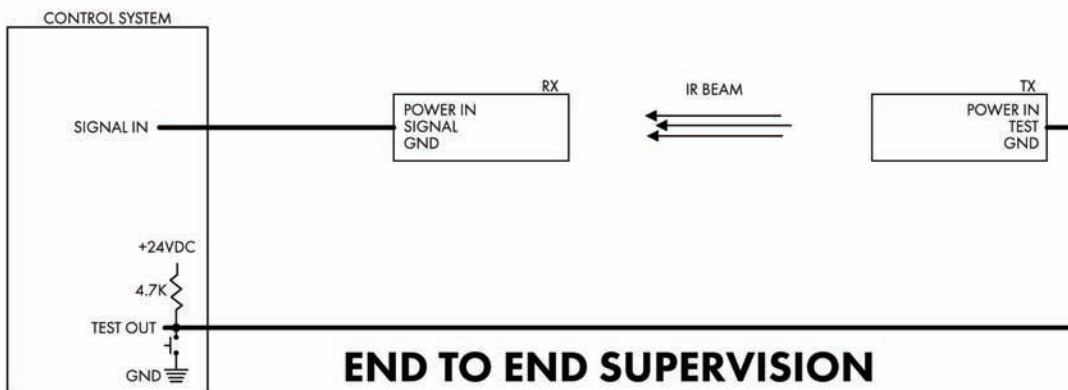
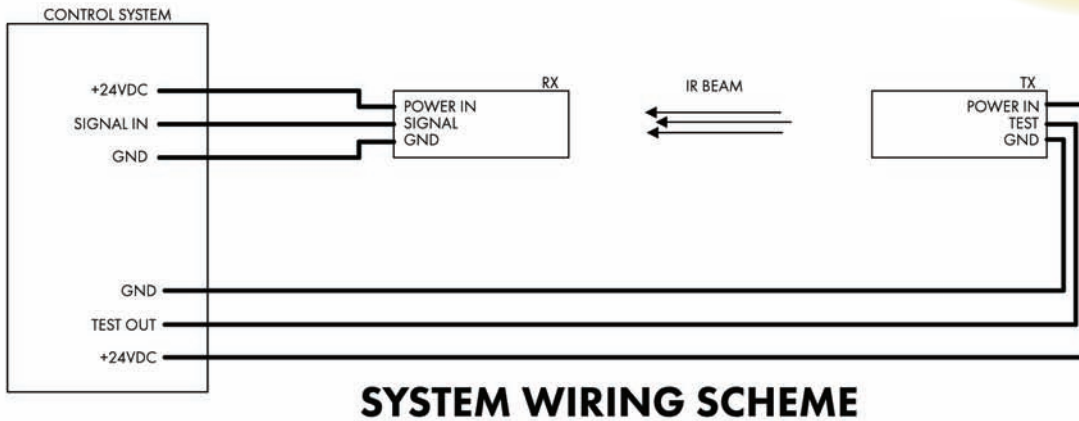
Specifications subject to change without notice (9652-401 Rev 1)

General Specifications

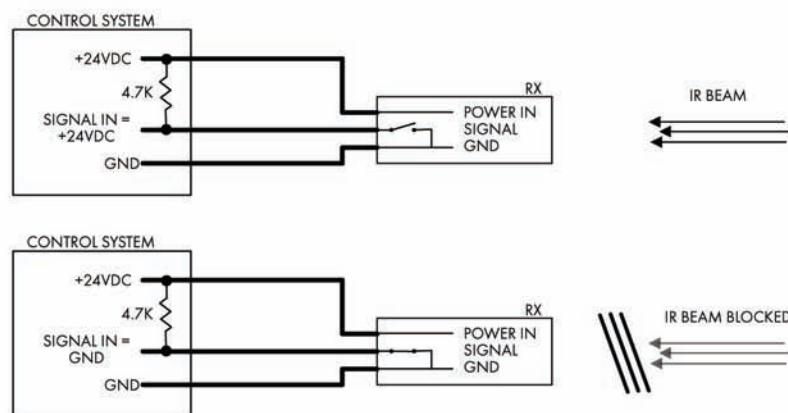
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Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m



STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



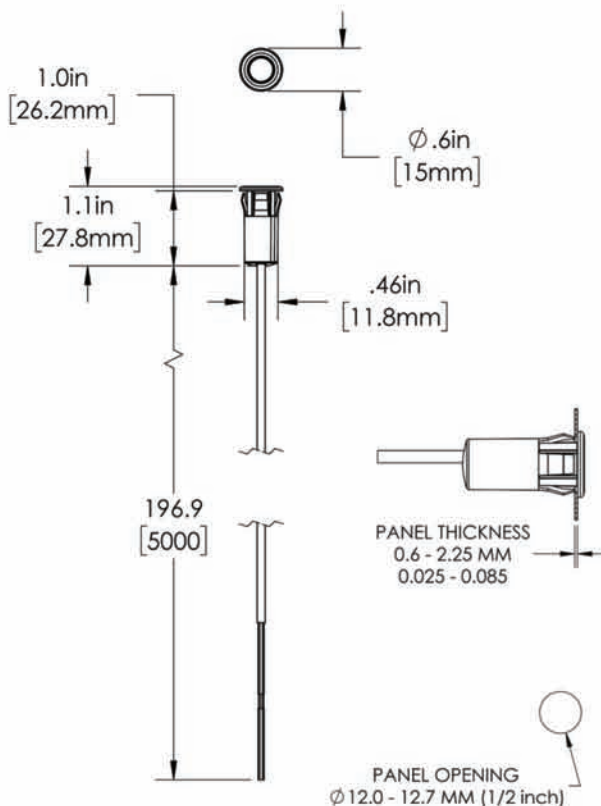
HBRXNC15

NPN Normally Closed Hold Beam Receiver



Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



Specifications subject to change without notice (9652-401 Rev 1)

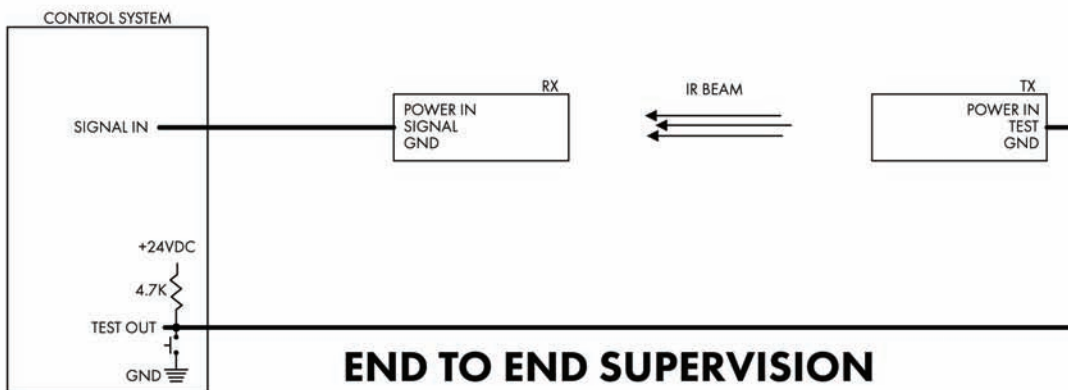
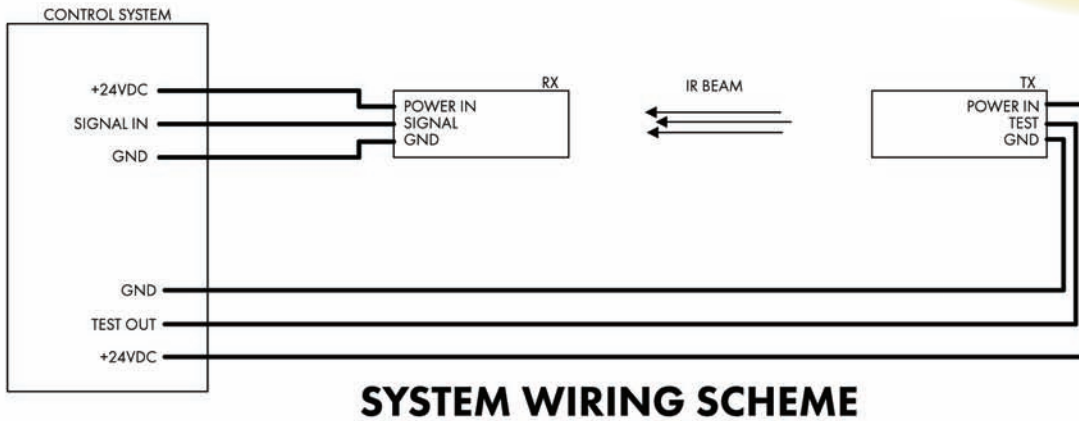
- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

General Specifications

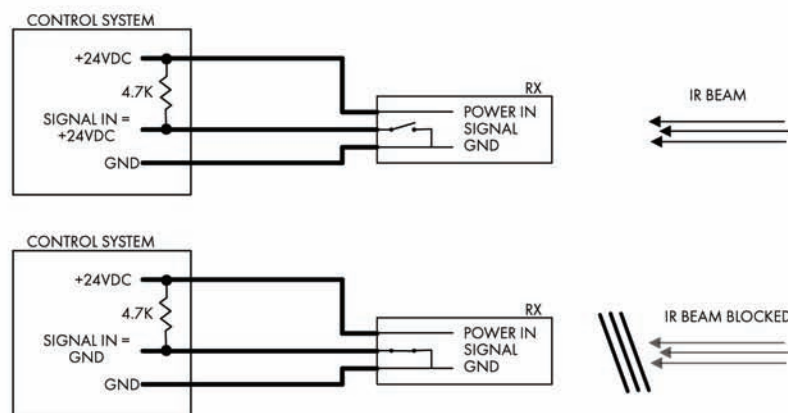
Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m



STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



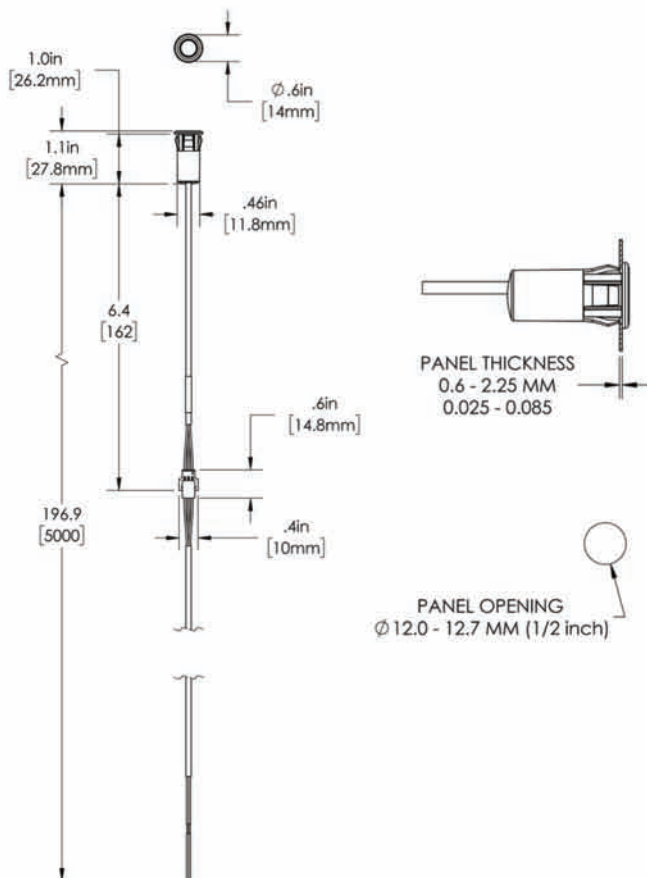
HBRXPC15CON

PNP Normally Closed Hold Beam Receiver



Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



Specifications subject to change without notice (9652-401 Rev 1)

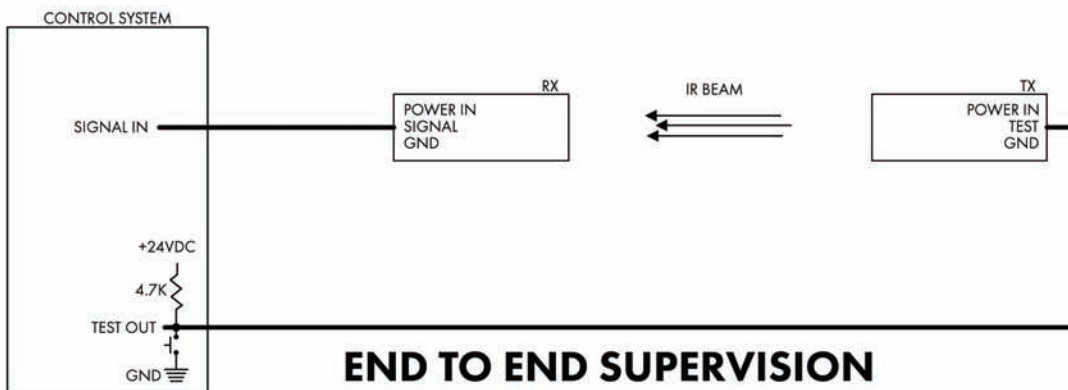
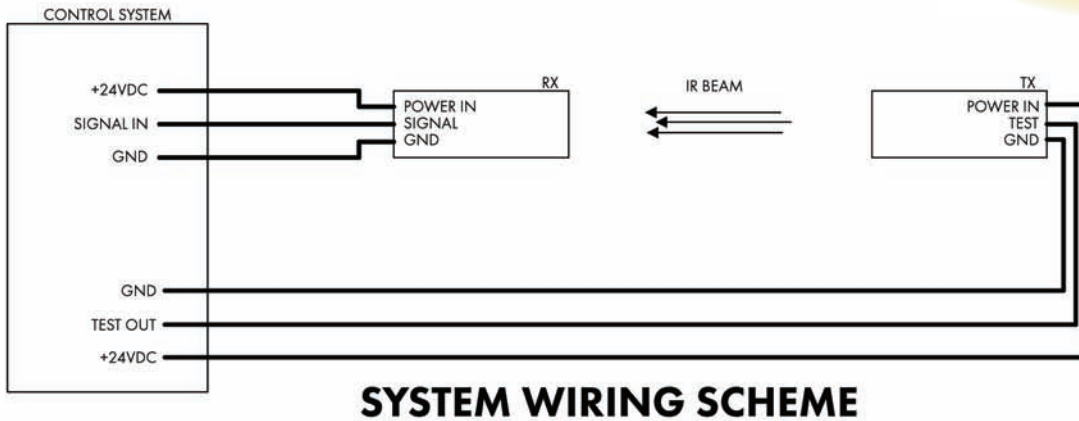
- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

General Specifications

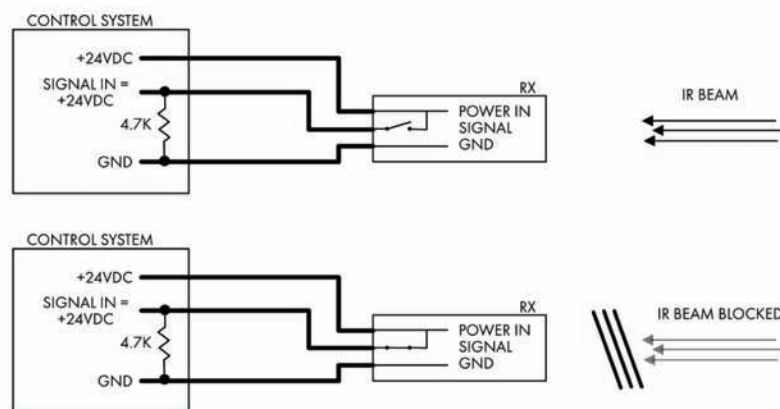
Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m



STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



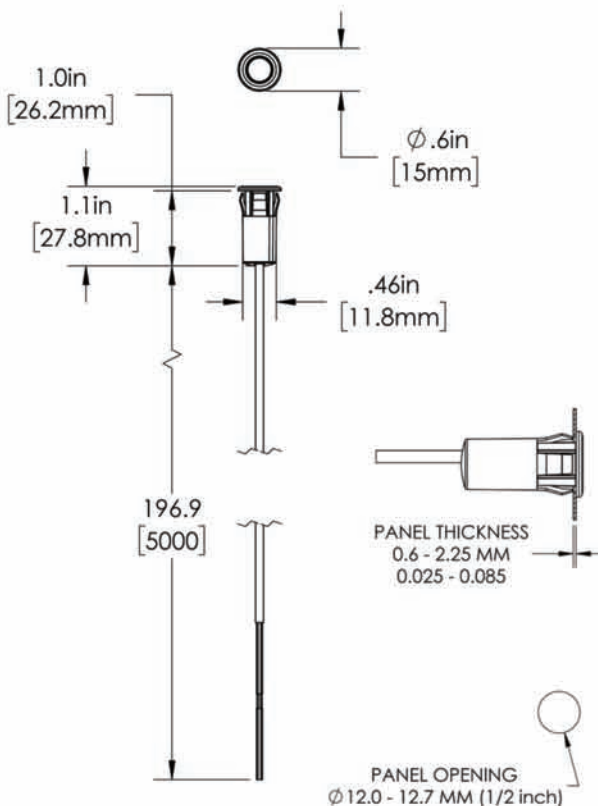
HBRXPC15

PNP Normally Closed Hold Beam Receiver



Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

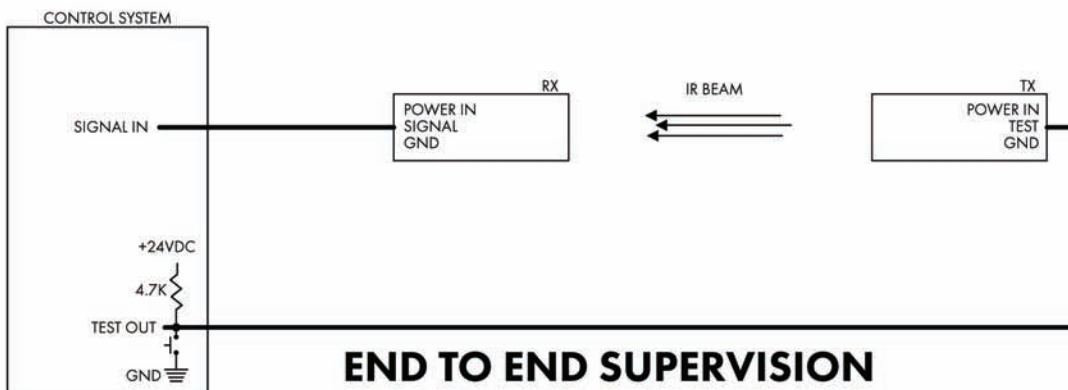
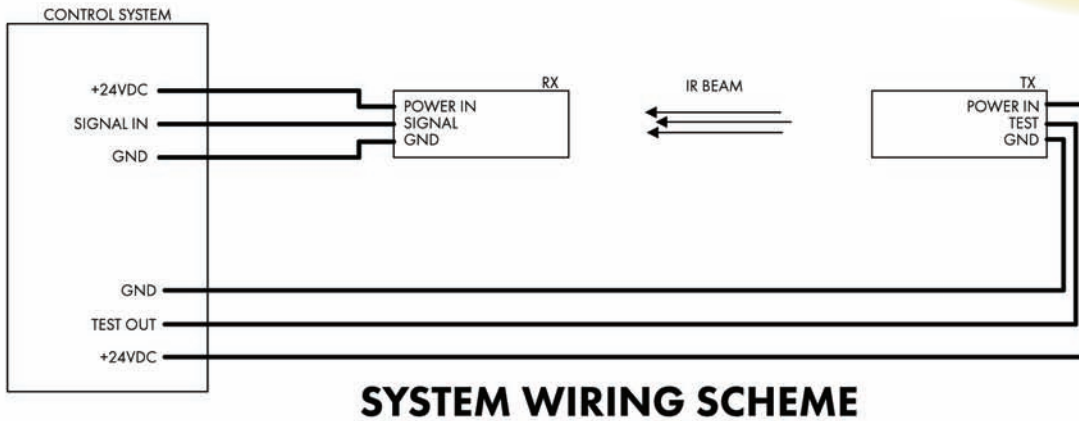
General Specifications

Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

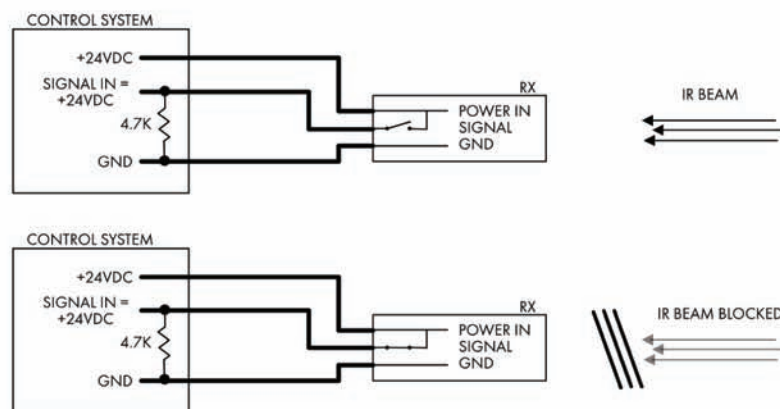
Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m

Specifications subject to change without notice (9652-401 Rev 1)



STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



HBRXPO15CON

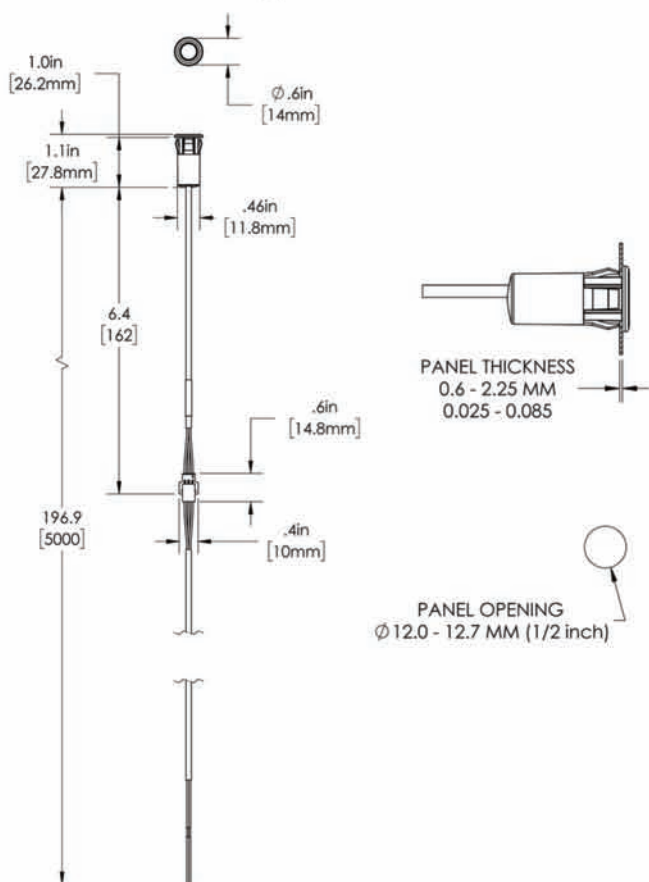
PNP Normally Open Hold Beam Receiver



- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



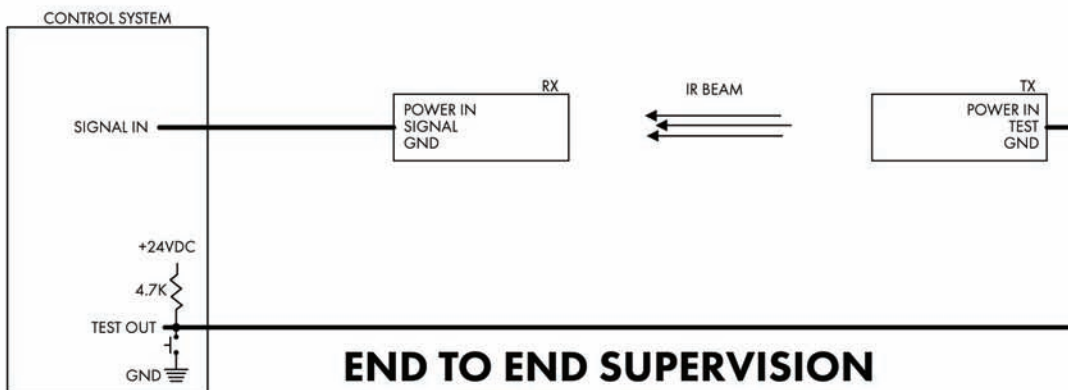
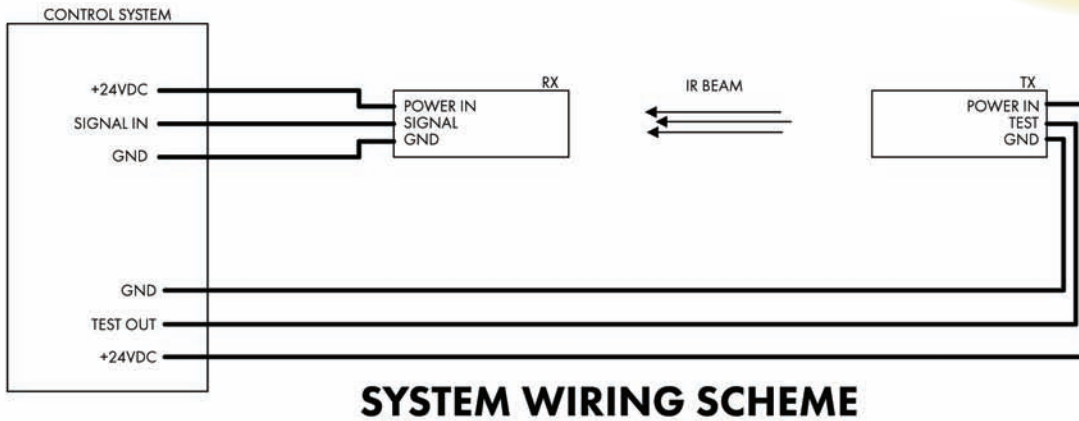
Specifications subject to change without notice (9652-401 Rev 1)

General Specifications

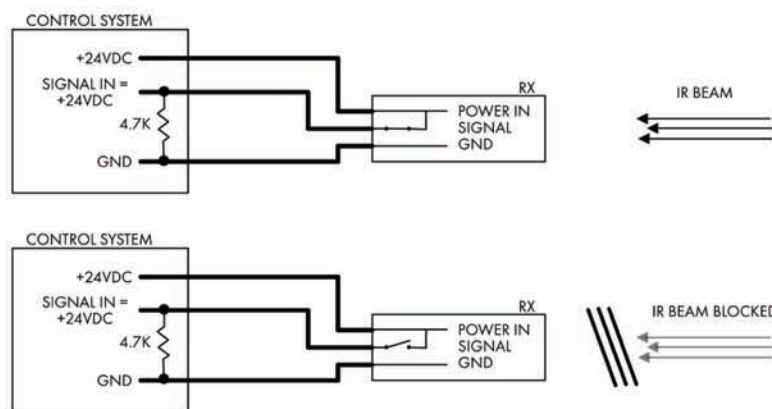
Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m



STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



HBRXNO15

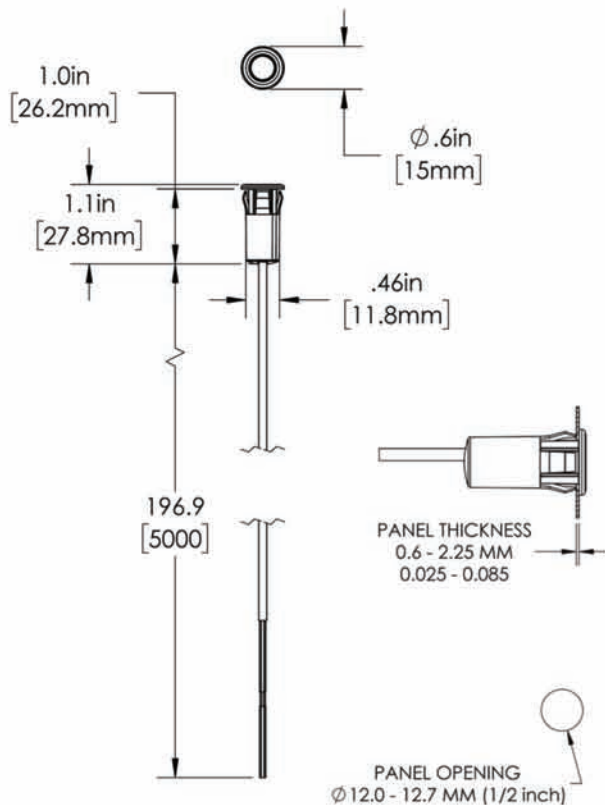
NPN Normally Open Hold Beam Receiver



- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



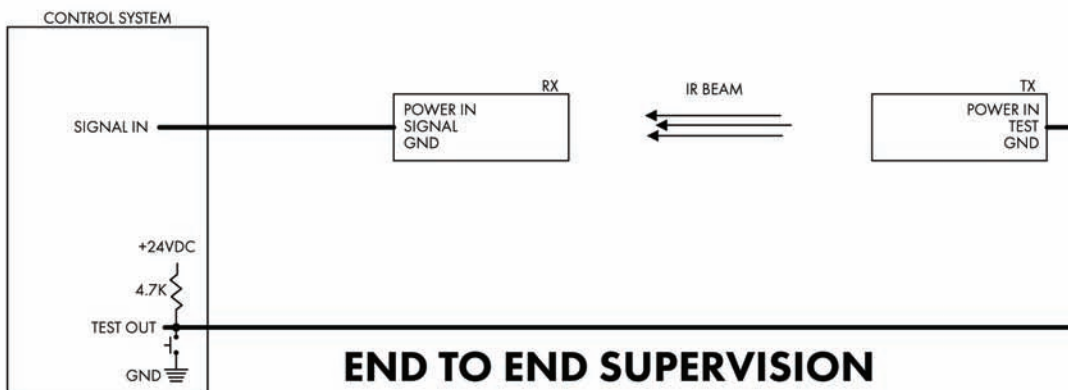
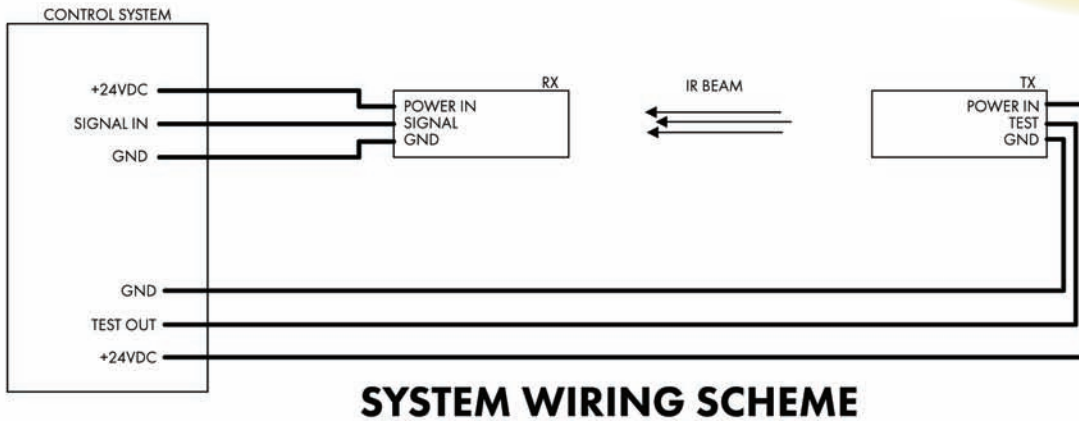
General Specifications

Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

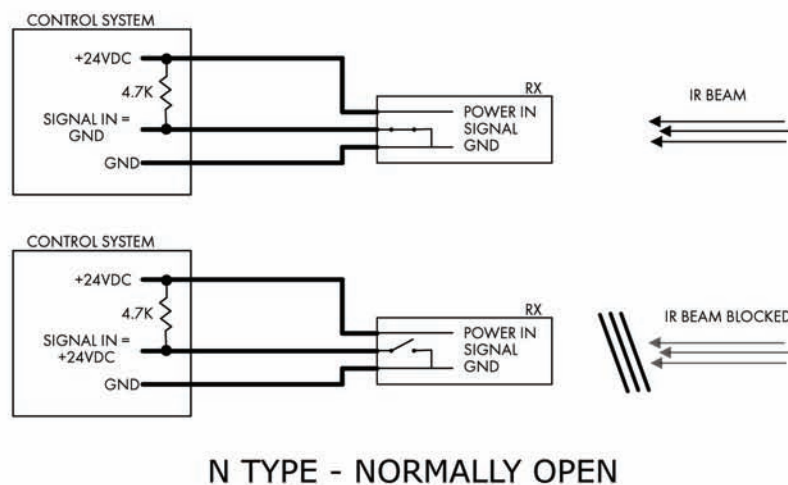
Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m

Specifications subject to change without notice (9652-401 Rev 1)



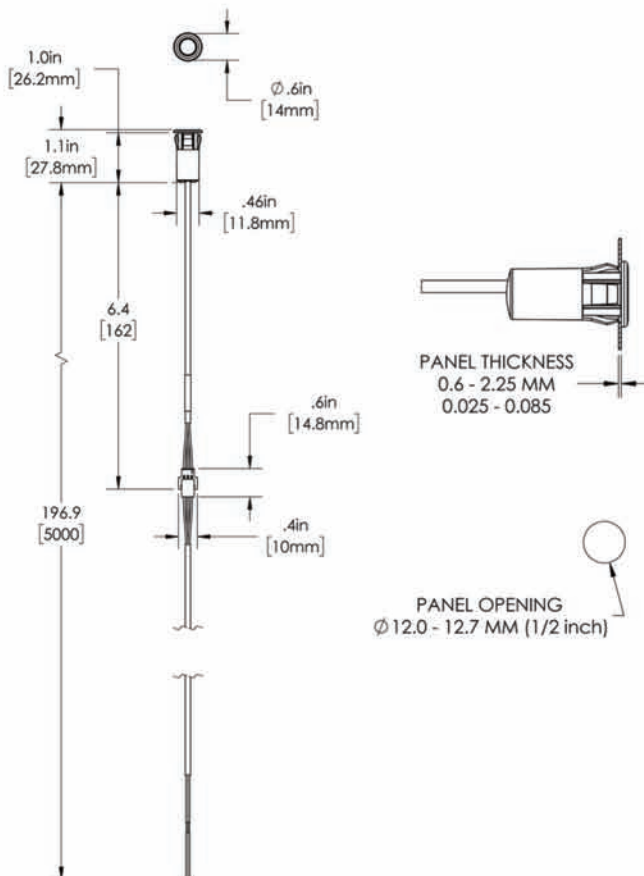
STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



NPN Normally Open Hold Beam Receiver



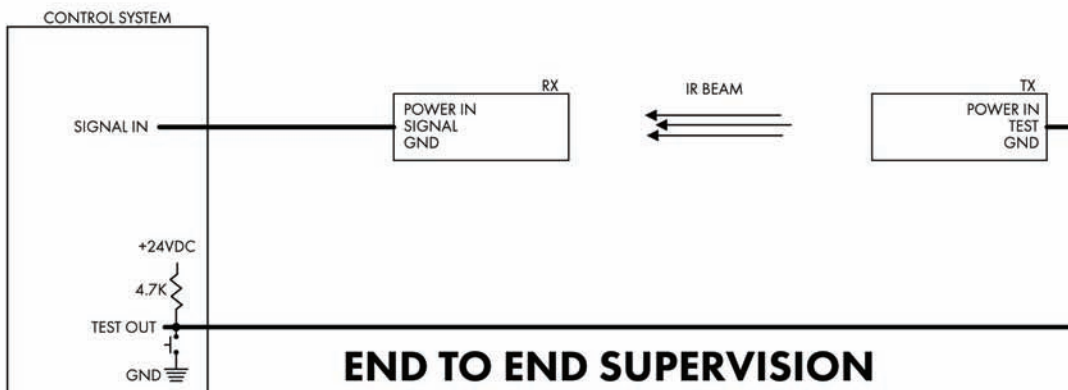
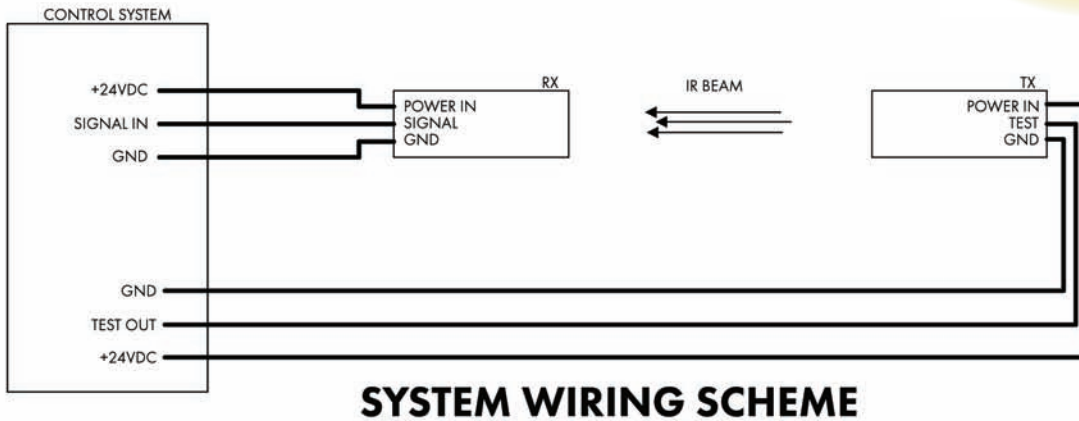
The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



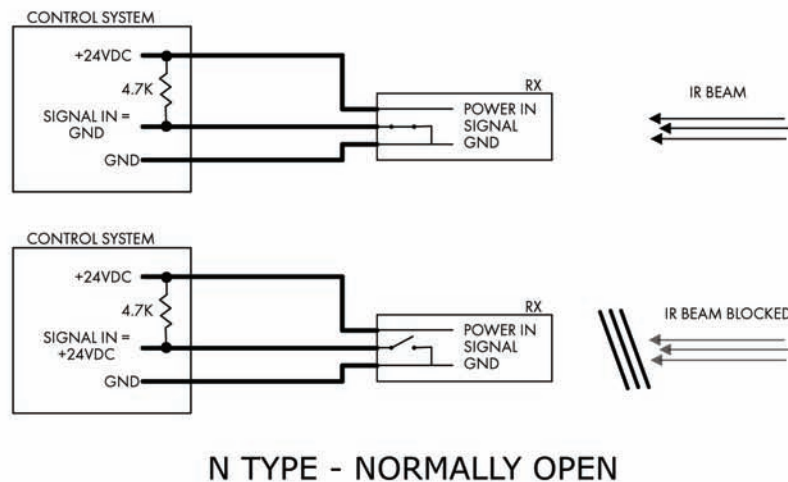
- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

Environment	Overvoltage Capacity Pollution degree Degree of protection	Category III 3 IP65 (IEC60529)
Temperature	Operating Storage	-25° to 60° C -40° to 60° C
Voltage Protection	Rated Insulation Voltage Dielectric Test Voltage	75 VDC 500 VAC RMS (EN60947-1)
ESPE		Type 2
Electrostatic Discharge	Contact Air	≥ 4KV (IEC61000-4-2) ≥ 8KV (IEC61000-4-2)
Impact	Drop Test Side Impact	4 foot drop test Swinging Ball (UL746 sec 57)
Certifications		UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current No load Continuous	$\leq 10 \text{ mA}$ $\leq 38 \text{ mA}$
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	$\pm 4^\circ @ 6.5\text{m}$



STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



HBRXPO15

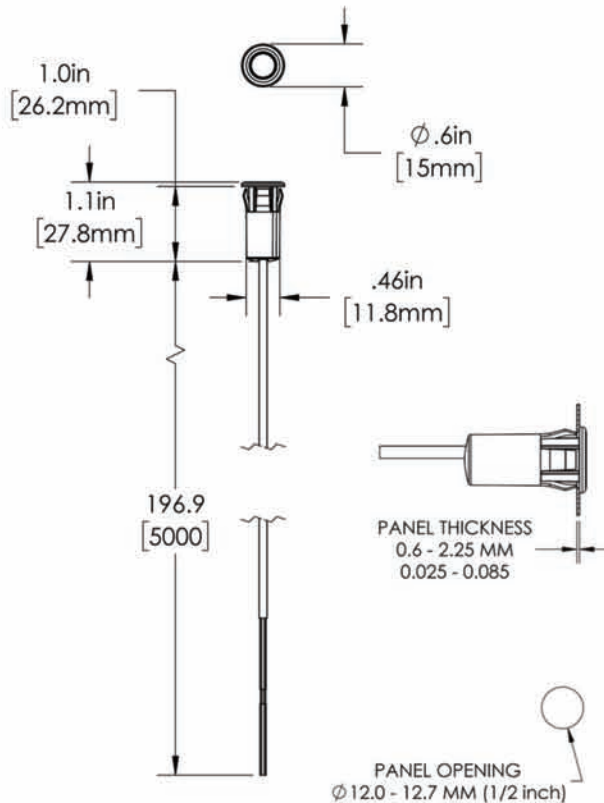
PNP Normally Open Hold Beam Receiver



- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



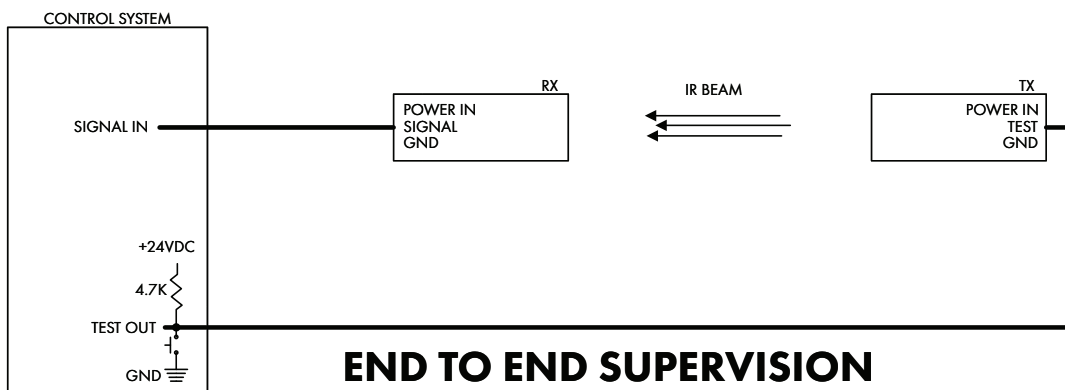
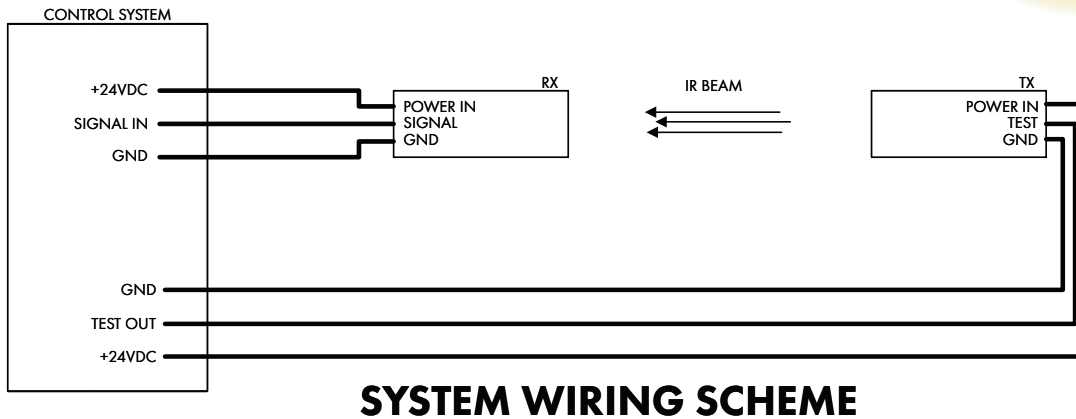
General Specifications

Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

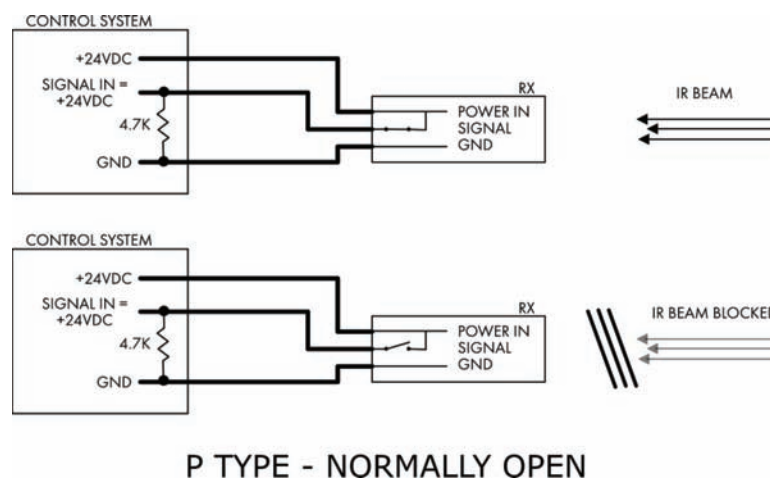
Receiver Specifications

Rated Operating Distance	15m
Blind Zone	None
Rated Operating Voltage	10-30 VDC
Supply Current	
No load	≤ 10 mA
Continuous	≤ 38 mA
Protection	Reverse Polarity ESD
Utility Categories	DC12 DC13
Detection	±4° @ 6.5m

Specifications subject to change without notice (9652-401 Rev 1)



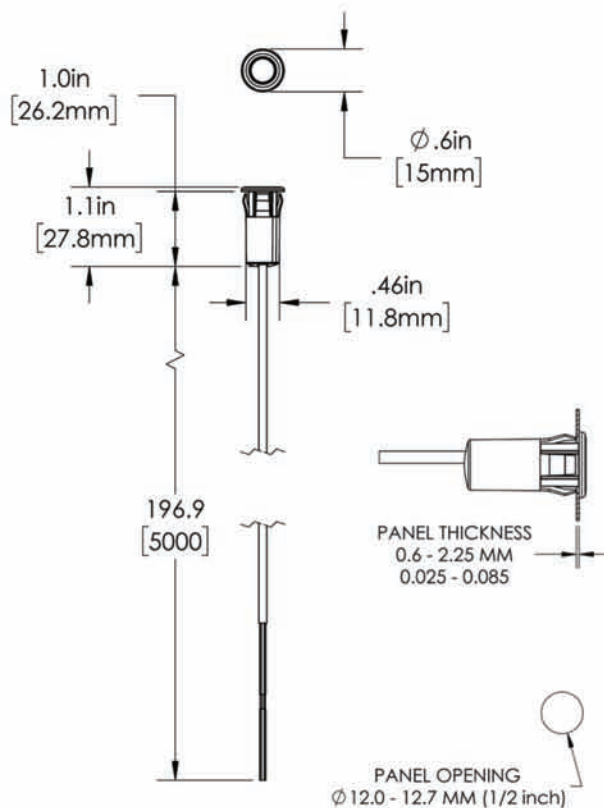
STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



MPD
MEMORY PROTECTION DEVICES



The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.

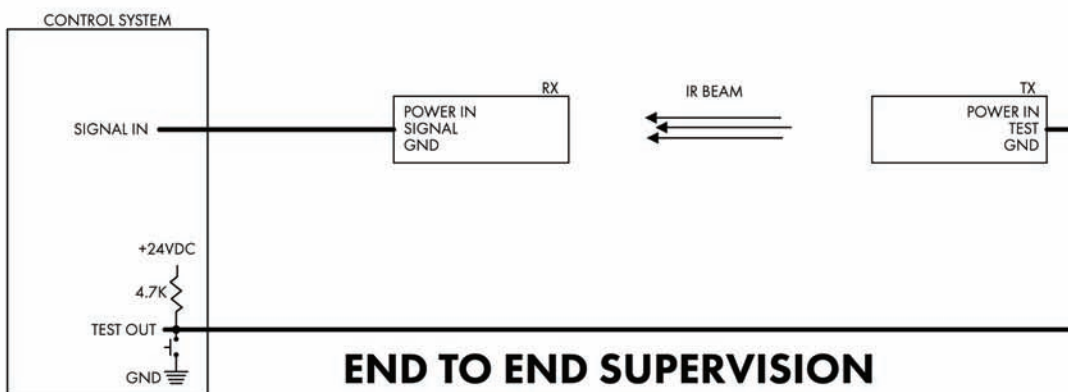
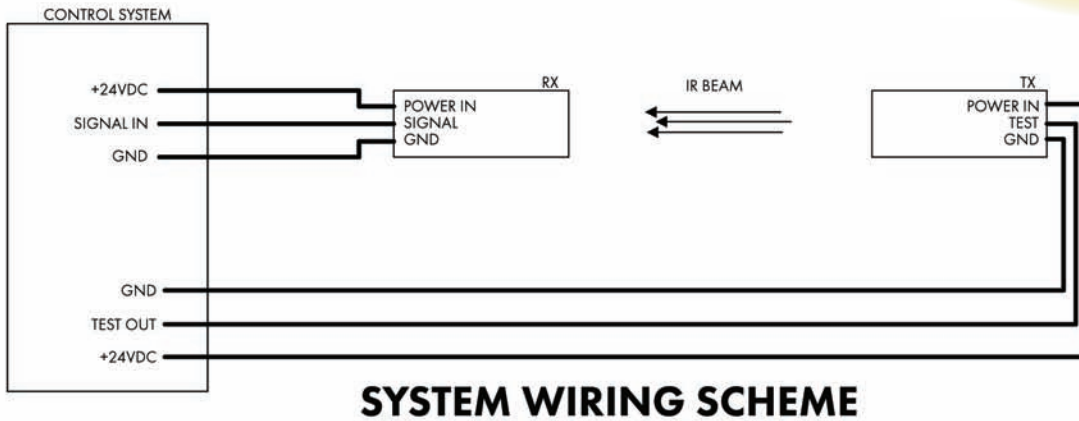


- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

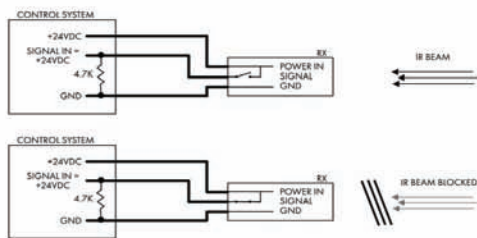
Environment	Overvoltage Capacity Pollution degree Degree of protection	Category III 3 IP65 (IEC60529)
Temperature	Operating Storage	-25° to 60° C -40° to 60° C
Voltage Protection	Rated Insulation Voltage Dielectric Test Voltage	75 VDC 500 VAC RMS (EN60947-1)
ESPE		Type 2
Electrostatic Discharge	Contact Air	≥ 4KV (IEC61000-4-2) ≥ 8KV (IEC61000-4-2)
Impact	Drop Test Side Impact	4 foot drop test Swinging Ball (UL746 sec 57)
Certifications		UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Rated Operating Voltage	10-30 VDC
Supply Current	≤ 20 mA
Light	
Source	IR LED, 950nm
Type	IR, Modulated
Spot	950 mm @ 10m
Ring Indicator	
Normal operation	Green, on continuous
Mute function	Green flash

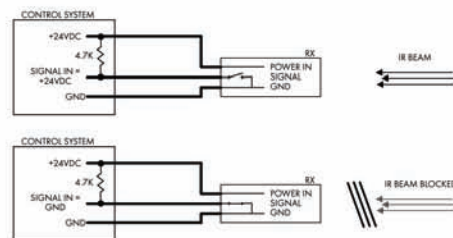
26



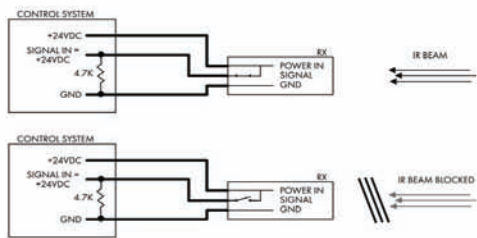
STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
 STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
 STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
 STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



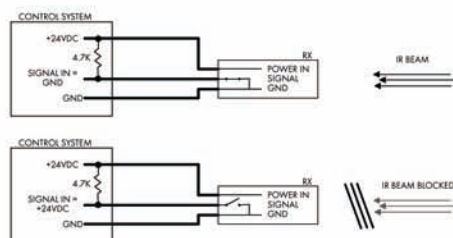
P TYPE - NORMALLY CLOSED



N TYPE - NORMALLY CLOSED



P TYPE - NORMALLY OPEN



N TYPE - NORMALLY OPEN

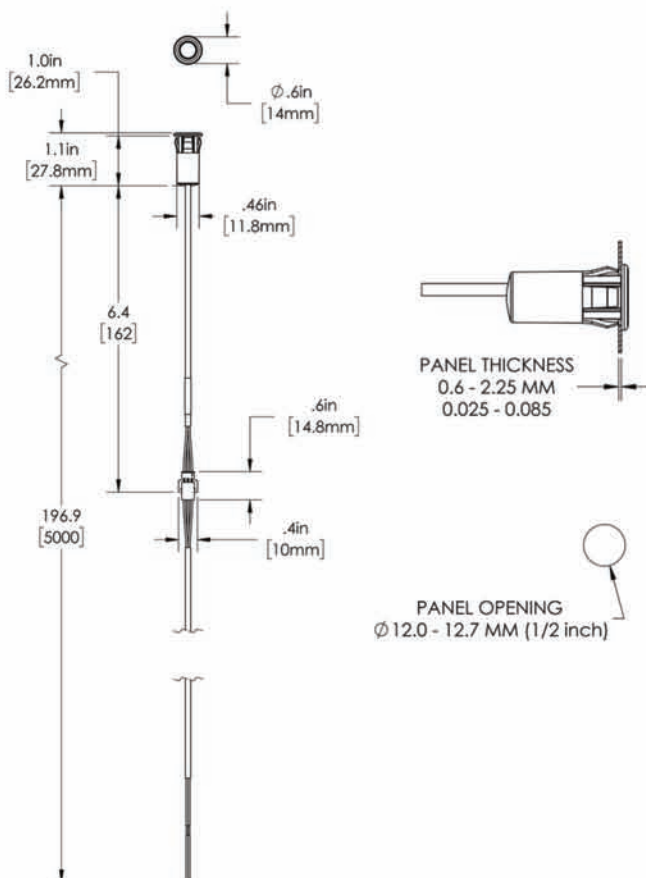
HBTX15CON

Hold Beam Transmitter



Product Description

The MPD HB series beams are a family of general purpose IR sensors, with particular applications in entrance, elevator, and escalator applications. The "quick install" enclosure makes setup simple - just push the beam into a 12mm diameter hole drilled into the wall and it will snap into place. The IP65 housing makes the beams suitable for a wide variety of both indoor and outdoor applications.



Specifications subject to change without notice (9652-401 Rev 1)

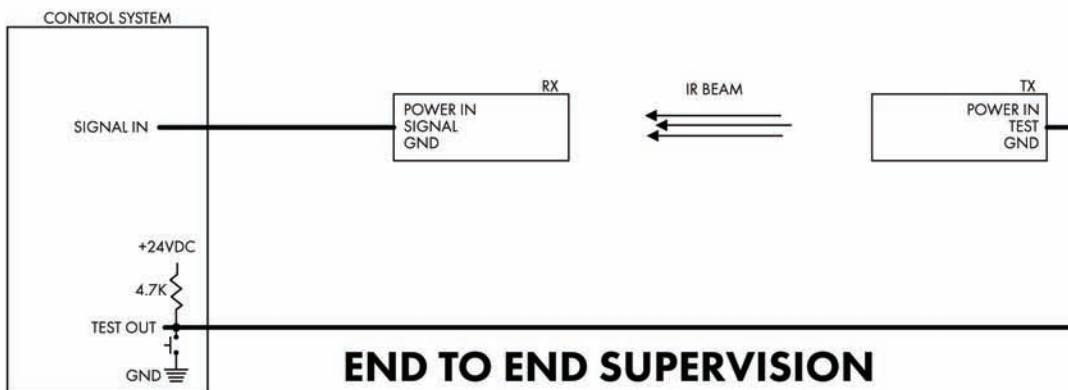
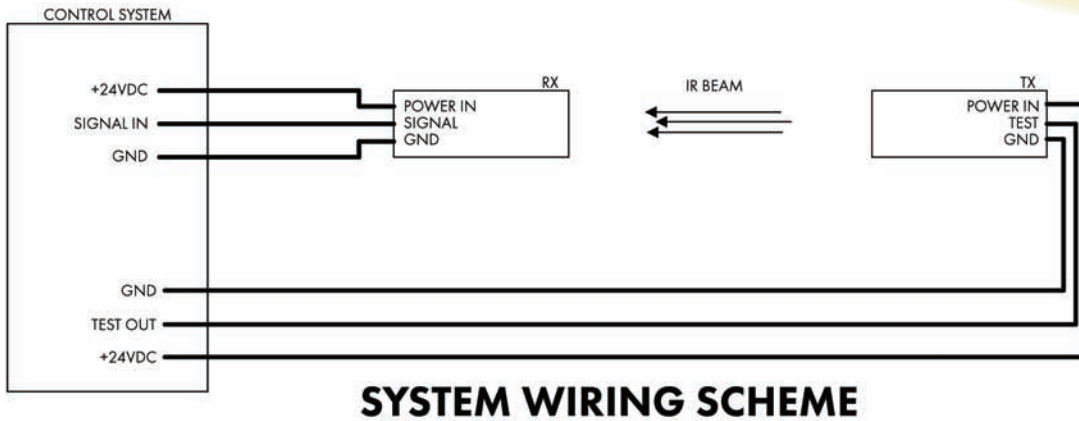
- Entrance, elevator, and escalator controls
- Range: 0-15m
- Supply voltage: 9 to 30 VDC
- Output: 30 mA
- Operating temperature: -30°C to 70°C
- NPN or PNP types available
- Patented LED ring indicator
- Patented adaptive power technology
- Noise immunity
- Available with or without cable connector
- UL325 approved

General Specifications

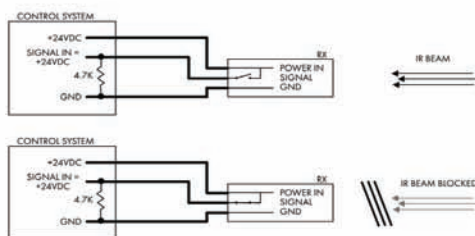
Environment	
Overvoltage Capacity	Category III
Pollution degree	3
Degree of protection	IP65 (IEC60529)
Temperature	
Operating	-25° to 60° C
Storage	-40° to 60° C
Voltage Protection	
Rated Insulation Voltage	75 VDC
Dielectric Test Voltage	500 VAC RMS (EN60947-1)
ESPE	Type 2
Electrostatic Discharge	
Contact	≥ 4KV (IEC61000-4-2)
Air	≥ 8KV (IEC61000-4-2)
Impact	
Drop Test	4 foot drop test
Side Impact	Swinging Ball (UL746 sec 57)
Certifications	UL325: E325114 UL60947-1 / 5-2: E517822 CSA C22.2 No. 60947 RoHS and REACH Compliant

Emitter Specifications

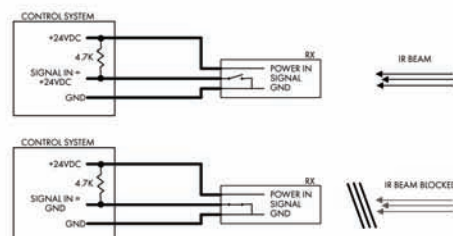
Rated Operating Voltage	10-30 VDC
Supply Current	≤ 20 mA
Light	
Source	IR LED, 950nm
Type	IR, Modulated
Spot	950 mm @ 10m
Ring Indicator	
Normal operation	Green, on continuous
Mute function	Green flash



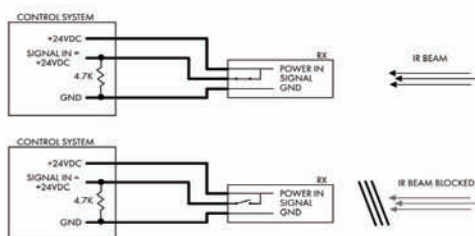
STEP 1: TEST OUT = FLOATING OR 24VDC, TURNS ON TX IR BEAM.
STEP 2: CONTROL SYSTEM DETECTS SIGNAL IN ENABLED.
STEP 3: TEST OUT = GND, TURNS OFF TX IR BEAM.
STEP 4: CONTROL SYSTEM DETECTS SIGNAL IN DISABLED.



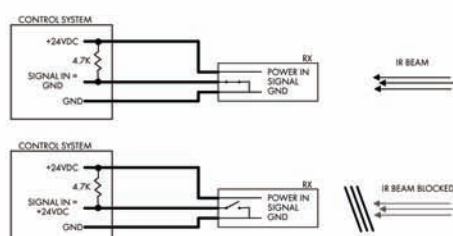
P TYPE - NORMALLY CLOSED



N TYPE - NORMALLY CLOSED



P TYPE - NORMALLY OPEN



N TYPE - NORMALLY OPEN

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BF357S



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AddCom	South Korea (Seoul)	(65) 68442788	www.addcom.com.sg
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QuadRep	Philippines (Las Piñas City)	(63) 28052879	www.quadrep.com.sg
AddCom	Singapore (Singapore)	(65) 68442788	www.addcom.com.sg
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Master Electronics	Mexico (Zapopan)	(33) 21534181	www.masterelectronics.com
Custom Power LLC	USA (Fountain Valley, CA)	1-800-432-3385	www.custompower.com
Excel Components & Supply	USA (Holtsville, NY)	1-631-475-1100	www.excelcomp.com
Inventus Power	USA (Woodridge IL)	1-630-410-7900	www.inventuspower.com
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Master Electronics	USA (Eden Prairie ,MN)	1-952-944-2151	www.masterelectronics.com
Master Electronics	USA (Tampa, FL)	1-813-814-2900	www.masterelectronics.com
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Master Electronics	USA (Bohemia, NY)	1-631-434-9394	www.masterelectronics.com
Master Electronics	USA (Redmond, WA)	1-425-821-5454	www.masterelectronics.com
Master Electronics	USA (Santa Monica, CA)	1-310-452-1229	www.masterelectronics.com
Master Electronics	USA (Miami, FL)	1-305-638-2000	www.masterelectronics.com
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Ineltro	Switzerland (Regensdorf)	(41) 433437300	www.ineltro.ch
Rossmann Electronic	Germany (Dießen am Ammersee)	(49) 8807949940	www.rossmannweb.de/index.php?lang=de
RC Microelectronica	Spain (Barcelona)	(34) 932602166	www.rcmicro.es
Sorelec Electronics	France (Cesson-Sevigne)	(33) 299837854	www.sorelec.com/l-actu/87-sorelec-distribue-les-solutions-mpd.html
Dissios SA Batteries	Greece (Paiania)	(30) 2106647333	www.batteries.gr/en/rechargeable/accessories/holders.html
HT Componenti Elettronici srl	Italy (Firenze)	(39) 055430310	it.kompass.com/c/ht-componenti-elettronici-srl/it0179298/
Nedelko	Netherlands (Barendrecht)	(31) 180645400	www.nedelko.nl
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