1-800-633-0405 **HE Series Photoelectric Sensors**



M8 (8mm) Through-beam Features

M8 miniaturized HEE and HER series through-beam sensors are available with NPN or PNP, and N.O. or N.C. outputs.

In the PNP models, the load is connected between the output (black wire) and the negative (blue wire).

In the NPN models, the load is connected between the output (black wire) and the positive (brown wire).

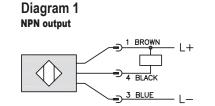
In the Normally Open models, the output is ON when the target is present (beam interrupted); in the Normally Closed models, the output is On when the target is absent (beam free).

- M8 small dimension housing
- · LED status indicator for all models
- · Complete protection against electrical damage
- IP67 protection
- · Strong stainless steel housing
- Fast switching frequency 10 kHz
- Sensing distance: 1 meter
- Supply voltage: 10 30 VDC
- NPN or PNP, N.O. or N.C. models



	HE Series Through-beam Photoelectric Sensors Selection Chart								
Part Number	Price	Voltage Range	Sensing Range	Switching Frequency	Sensing Beam	Through-Beam Component	Output Type	Connection Type	Wiring
<u>HEE-00-3A</u>	\$38.50			10 kHz	kHz Infrared	Emitter	-	1 meter cable M8 quick-disconnect (purchase separately)	Diagram 3
HER-AP-3A	\$55.00					Receiver	PNP N.O.		Diagram 2
HER-CP-3A	\$60.00					Receiver	PNP N.C.		Diagram 2
HER-AN-3A	Retired					Receiver	NPN N.O.		Diagram 1
HER-CN-3A	Retired	10 to 30	3.28 ft			Receiver	NPN N.C.		Diagram 1
HEE-00-3F	\$39.50	VDC	[1m] "			Emitter	-		Diagram 3
HER-AP-3F	\$58.00					Receiver	PNP N.O.		Diagram 2
HER-CP-3F	\$60.00					Receiver	PNP N.C.		Diagram 2
HER-AN-3F	\$58.00					Receiver	NPN N.O.		Diagram 1
HER-CN-3F	\$60.00					Receiver	NPN N.C.		Diagram 1

Wiring Diagrams



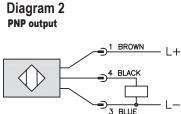
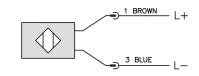


Diagram 3 Emitter



Connector **M8** Connector



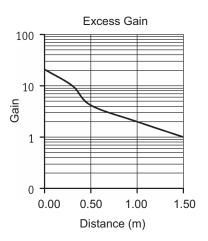
Switching Element Function Through-beam and Diffuse Reflective **Reflective Models** Models Light-on N.C. N.O. Dark-on N.O. N.C.

Warning: These products are not safety sensors and are not suitable for use in personal safety applications.

1-800-633-0405 **HE Series Photoelectric Sensors**

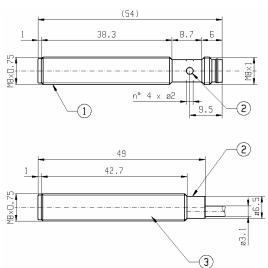
HEE/HER Series Photoelectric Sensors Specifications					
Туре	Through-Beam				
Sensing Distance	1m [3.28 ft] /Ex. Gain = 2				
Light Spot Diameter	See chart				
Emission	Infrared				
Sensitivity	Fixed				
Output Types	PNP/NPN N.O./ N.C.				
Operating Voltage	10 - 30 VDC				
No Load Supply Current	25mA				
Operating (Load) Current	100mA				
Off-state (Leakage) Current (max)	<10 µA @ 30VDC				
Voltage Drop	1 Volt				
Switching Frequency	10 kHz				
Ripple	<10%				
Time Delay Before Availability (tv)	100ms				
Short-circuit Protection	Yes				
Operating Temperature	-13 to 122°F [-25 to 50°C]				
Protection Degree	IP67				
LED Indicators - Switching Status	Yellow Output State				
Housing Material	Stainless Steel				
Lens Material	Polymethyl methacrylate (PMMA)				
Shock/Vibration	See terminology section				
Tightening Torque	5 N•m [3.69 lb-ft]				
Weight	30.9 g [1.09 oz]				
Connectors	1 meter cable; 8mm quick-disconnect				
Agency Approvals	CE				

Characteristic curves chart



Dimensions

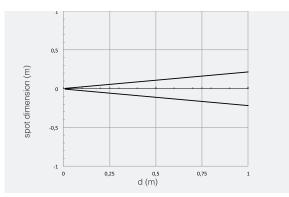
(mm)



(1) M8 x 0.75 threaded cylindrical housing M8 connector exit

(a) Yellow LED (output state indicator HER - Supply Indicator HEE) (a) M8 x 0.75 threaded cylindrical housing cable exit

Spot dimension chart



Warning: These products are not safety sensors and are not suitable for use in personal safety applications.

1-800-633-0405 Accessories for 8mm Sensors

Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

Accessories for 8mm Sensors						
Part Number	Price	Description	Drawing Link	Weight [lb]		
<u>ST08A</u>	\$2.00	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	PDF	0.04		





Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-beam-angle-adapter sensors. Hexagonal nuts not included.

Accessories for 8mm Sensors						
Part Number	Part Number Price Description		Drawing Link	Weight [lb]		
<u>ST08C</u>	\$2.00	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	<u>PDF</u>	0.04		



<u>ST08C</u>

Accessories for 8mm Sensors

Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 8mm sensors.

Accessories for 8mm Sensors						
Part Number Price		Description	Drawing Link	Weight [lb]		
<u>OPT2101</u>	\$8.00	Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	PDF	0.02		



<u>OPT2101</u>

Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment. For use with 8mm sensors. Available in all stainless steel or with an aluminum head and stainless steel mounting plate.

	Accessories for 8mm Sensors									
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight [lb]				
<u>OPT2112</u>	\$11.50	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 8mm sensors.	Aluminum	304 Stainless Steel	<u>PDF</u>	0.14				
<u>OPT2113</u>	\$21.00	Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 8mm sensors.	304 Stainless Steel	304 Stainless Steel	<u>PDF</u>	0.26				



<u>OPT2112</u> & <u>OPT2113</u>

Note: 304 Stainless steel mounting rods sold separately: <u>OPT2109</u> (200mm length), <u>OPT2110</u> (300mm length), and <u>OPT2111</u> (500mm length).

1-800-633-0405 Mounting Rods and Brackets

Mounting Rods

304 Stainless steel rods for mounting swivel brackets <u>OPT2112</u> - <u>OPT2127</u> Available in three lengths: 200mm, 300mm, and 500mm. 12mm diameter.

M	Mounting Rods for OPT2112-2127 Swivel Mounting Brackets							
Part Number	ber Price Description		Drawing Link	Weight Ib (g)				
<u>OPT2109</u>	\$13.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	PDF	0.41 [185.97]				
<u>OPT2110</u>	\$16.00	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	PDF	0.60 [272.16]				
<u>OPT2111</u>	\$21.00	Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	PDF	0.98 [444.52]				



Right-angle Mounting Bracket

Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods <u>OPT2109</u>, <u>OPT2110</u> & <u>OPT2111</u>.

Right-angle Mounting Brackets for 12mm Sensors							
Part Number Price Description			Drawing Link	Weight Ib [g]			
<u>OPT2108</u>	\$16.00	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	<u>PDF</u>	0.07 [31.8]			

