

# proSense® Object Detection Light Grids

## Sender/Receiver Pair - Object Detection Light Grids FLG Series

### Overview

ProSense FLG series light grids are designed for object detection using a simple and cost-effective solution. They support 20mm [0.78in] and 40mm [1.57in] beam resolutions with no dead zone on the full detection height.

### Features

- Status indicating LEDs
- Protection rating IP67
- Mounting hardware included [FLG-BRKT-01](#)
- Purchase cables separately



**FLG-H26-0220**



**Sender/Receiver Pair Object Detection Light Grids FLG Series Selection Chart**

Part Number	Price	Beam Resolution	Detection Height	Operating Distance	Switching Output	Operating Voltage	Connection	Weight kg [lb]	Drawing Link
<a href="#">FLG-H26-0220</a>	\$327.00	20mm [0.78in]	220mm [8.66in]	0.1-10m [0.32-32.80ft]	NPN/PNP	21.6-26 VDC	(1) 8-pin M12 quick-disconnect (1) 12-pin M12 quick-disconnect  7.8in [200mm] cable length PVC jacket	1.22 [2.7]	<a href="#">PDF</a>
<a href="#">FLG-H26-0300</a>	\$366.00		300mm [11.81in]					1.44 [3.17]	<a href="#">PDF</a>
<a href="#">FLG-H26-0460</a>	\$476.00		460mm [1.50ft]					2.11 [4.65]	<a href="#">PDF</a>
<a href="#">FLG-H26-0540</a>	\$534.00		540mm [1.77ft]					2.36 [5.21]	<a href="#">PDF</a>
<a href="#">FLG-H26-0700</a>	\$635.00		700mm [2.29ft]					2.88 [6.35]	<a href="#">PDF</a>
<a href="#">FLG-H26-0780</a>	\$675.00		780mm [2.55ft]					3.11 [6.85]	<a href="#">PDF</a>
<a href="#">FLG-H26-0940</a>	\$770.00		940mm [3.08ft]					3.84 [8.47]	<a href="#">PDF</a>
<a href="#">FLG-H26-1020</a>	\$829.00		1020mm [3.34ft]					4.01 [8.84]	<a href="#">PDF</a>
<a href="#">FLG-H26-1100</a>	\$878.00		1100mm [3.60ft]					4.22 [9.31]	<a href="#">PDF</a>
<a href="#">FLG-H26-1260</a>	\$975.00		1260mm [4.13ft]					4.73 [10.42]	<a href="#">PDF</a>
<a href="#">FLG-H26-1340</a>	\$1,020.00		1340mm [4.39ft]					4.92 [10.85]	<a href="#">PDF</a>
<a href="#">FLG-H26-1420</a>	\$1,094.00		1420mm [4.65ft]					5.16 [11.38]	<a href="#">PDF</a>
<a href="#">FLG-H26-1500</a>	\$1,117.00		1500mm [4.92ft]					5.59 [12.33]	<a href="#">PDF</a>
<a href="#">FLG-H26-1580</a>	\$1,344.00		1580mm [5.18ft]					5.83 [12.84]	<a href="#">PDF</a>
<a href="#">FLG-A46-0280</a>	\$308.00		40mm [1.57in]					280mm [11.02in]	
<a href="#">FLG-A46-0440</a>	\$392.00	440mm [1.44ft]		2.11 [4.65]	<a href="#">PDF</a>				
<a href="#">FLG-A46-0600</a>	\$462.00	600mm [1.96ft]		2.68 [5.91]	<a href="#">PDF</a>				
<a href="#">FLG-A46-0760</a>	\$540.00	760mm [2.49ft]		3.11 [6.85]	<a href="#">PDF</a>				
<a href="#">FLG-A46-0920</a>	\$611.00	920mm [3.01ft]		3.84 [8.47]	<a href="#">PDF</a>				
<a href="#">FLG-A46-1080</a>	\$694.00	1080mm [3.54ft]		4.22 [9.31]	<a href="#">PDF</a>				
<a href="#">FLG-A46-1240</a>	\$780.00	1240mm [4.06ft]		4.73 [10.42]	<a href="#">PDF</a>				
<a href="#">FLG-A46-1400</a>	\$831.00	1400mm [4.59ft]		5.16 [11.38]	<a href="#">PDF</a>				

Mounting hardware included.

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

# proSense® Object Detection Light Grids

## Sender/Receiver Pair - Object Detection Light Grids FLG Series

Sender/Receiver Pair Object Detection Light Grids FLG Series Specifications	
<b>Voltage Range</b>	24VDC ± 10%
<b>Current Consumption</b>	Sender <105mA, Receiver < 100mA
<b>Maximum Power</b>	Sender: 2.8W Receiver: 2.65W
<b>Indicator</b>	Blue LED: The terminals in the end are aligned Green LED: All beams are aligned Red LED: Any beam is misaligned or blocked Orange LED: The SYNC signal is missing Self-diagnosis Automatically diagnose optical axis scanning, signal feedback and voltage.
<b>Protection Circuit</b>	Protection against reverse power connection Power supply surge, Output overcurrent, Output surge
<b>Response Time</b>	FLG-H26 models: 3.4 to 23.4ms, FLG-A46 models: 2.6 to 9.8ms
<b>Operating Temperature</b>	-10 to 55°C [14 to 131°F]
<b>Storage Temperature</b>	-25 to 60°C [-13 to 140°F]
<b>Ambient Humidity</b>	30 to 85%
<b>Enclosure Rating</b>	IP67
<b>Ambient Light Resistance</b>	20,000 lx or less
<b>Vibration Resistance</b>	10 to 55Hz, 1.5mm, 3 axes for 2 hours
<b>Shock Resistance</b>	Max. 100 m/s <sup>2</sup> , 3 axes, 6 directions and 3 times in each
<b>Insulation Resistance</b>	20MΩ or more(500VDC)
<b>Withstand Voltage</b>	1000 VAC 50/60 Hz 1min
<b>Material</b>	Housing: Aluminum, Lens: PMMA, Terminal: Zinc alloy
<b>Tightening Torque</b>	M5: 15+/-1 Kgf-cm (13 lbf-in)
<b>Cable</b>	(1) 8-pin M12 quick-disconnect (1) 12-pin M12 quick-disconnect 7.8in [200mm] cable length PVC jacket Color of cable: Sender gray, Receiver black
<b>Agency Approval</b>	cULus File E328811, CE

## Light Grid Mounting Brackets FLG Series

### Features

- Aluminum
- Hardware included



**FLG-BRKT-01**

**FLG-BRKT-02**

Light Grid Mounting Brackets - FLG Series				
Part Number	Price	Description	Weight lb	Drawing Link
<a href="#">FLG-BRKT-01</a>	\$10.00	ProSense FLG series mounting bracket, replacement, lateral orientable, vertical and horizontal adjustment, aluminum. Package of 2. For use with ProSense light grids. Mounting hardware included.	0.23	<a href="#">PDF</a>
<a href="#">FLG-BRKT-02</a>	\$7.00	ProSense FLG series mounting bracket, lateral orientable, aluminum. Package of 2. For use with ProSense light grids. Mounting hardware included.	0.17	<a href="#">PDF</a>

The number of brackets depends on detection height, suggestion in each sender / receiver.  
220mm to 300mm requires 1 piece (1 set); 440mm to 1,580mm requires 2 pieces (2 sets).

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## Light Grid Cables FLG Series

### Features

- Industry standard axial M12 screw-lock connectors with open leads
- IP67 protection rating
- Cables listed can be used with patch cables
- 2.5m [8.2ft], 5m [16.4ft], and 10m [32.8ft] cable lengths



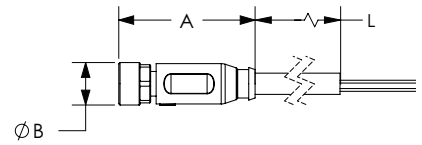
**FLG-WE025**



**FLG-WR025**

M12 A-coded Cable to Pigtail Selection Chart										
Part Number	Price	Number of Wires	Connector	Jacket Color	For Use With	Drawing Link	Weight [lb]	Dimensions		
								A	B	L
								mm [inch]	m [ft]	
<a href="#">FLG-WE025</a>	\$22.00	7	Axial female to pigtail	Gray	ProSense light grid senders	<a href="#">PDF</a>	0.25	43 [1.69]	14.5 [0.57]	2.5 [8.2]
<a href="#">FLG-WE050</a>	\$32.00					<a href="#">PDF</a>				5 [16.4]
<a href="#">FLG-WE100</a>	\$52.00					<a href="#">PDF</a>				10 [32.8]
<a href="#">FLG-WR025</a>	\$25.00	9	Axial female to pigtail	Black	ProSense light grid receivers	<a href="#">PDF</a>	0.25	43 [1.69]	14.5 [0.57]	2.5 [8.2]
<a href="#">FLG-WR050</a>	\$37.00					<a href="#">PDF</a>				5 [16.4]
<a href="#">FLG-WR100</a>	\$61.00					<a href="#">PDF</a>				10 [32.8]

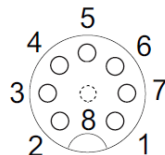
### Dimensions



M12 A-coded Cable to Pigtail Specifications		
Model	FLG-WE Models	FLG-WR Models
Type	7-Wire, 8-Pin	9-Wire, 12-Pin
Voltage Rating	30 VAC/VDC	
Max. Voltage UL Rating	UL20387 30 VAC/VDC	
Max. Current per Contact	2A	1.5A
Nut Material	Female Nickel-Plated Brass	
Cable Jacket/Wire Insulation Material	PVC/PVC	
Contact Material	Phosphor Bronze Gold-Plated	
Tightening Torque	0.4 to 1.6 N·m	
Conductors Cross Section	0.14 mm <sup>2</sup> [26AWG]	
Ø Outer Cable For PVC/PVC	5.8mm [0.23in]	
Temperature Range - Stationary Use	-25 to 80°C [-13 to 176°F]	
Temperature Range - Flexible Use	-25 to 80°C [-13 to 176°F]	
Agency Approvals	UL, CE	

### Wiring Diagrams

Female 7-Wire, 8-Pin	
Pin	
1	VCC (Brown)
2	GND (Blue)
3	SYNC+ (Orange)
4	SYNC- (Orange/ White) (3, 4 twisted pair)
5	FB- (Pink/ White)
6	FB+ (Pink) (5, 6 twisted pair)
7	Green (only the end of wire for shielding use)
8	Not used



Female 9-Wire, 12-Pin	
Pin	
1	VCC (Brown)
2	GND (Blue)
3	SYNC+ (Orange)
4	SYNC- (Orange/ White) (3, 4 twisted pair)
5	FB- (Pink/ White)
6	FB+ (Pink) (5, 6 twisted pair)
7	NPN (Black)
8	PNP (White)
9	Green (only the end of wire for shielding use)
10	Not used
11	Not used
12	Not used

