

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
FLG-H26-0220	\$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]	PDF
FLG-H26-0300	\$366.00		300mm [11.81in]					1.44 [3.17]	PDF
FLG-H26-0460	\$476.00		460mm [1.50ft]					2.11 [4.65]	PDF
FLG-H26-0540	\$534.00		540mm [1.77ft]					2.36 [5.21]	PDF
FLG-H26-0700	\$635.00		700mm [2.29ft]					2.88 [6.35]	PDF
FLG-H26-0780	\$675.00		780mm [2.55ft]					3.11 [6.85]	PDF
FLG-H26-0940	\$770.00		940mm [3.08ft]					3.84 [8.47]	PDF
FLG-H26-1020	\$829.00		1020mm [3.34ft]					4.01 [8.84]	PDF
FLG-H26-1100	\$878.00		1100mm [3.60ft]					4.22 [9.31]	PDF
FLG-H26-1260	\$975.00		1260mm [4.13ft]					4.73 [10.42]	PDF
FLG-H26-1340	\$1,020.00		1340mm [4.39ft]					4.92 [10.85]	PDF
FLG-H26-1420	\$1,094.00		1420mm [4.65ft]					5.16 [11.38]	PDF
FLG-H26-1500	\$1,117.00		1500mm [4.92ft]					5.59 [12.33]	PDF
FLG-H26-1580	\$1,344.00		1580mm [5.18ft]					5.83 [12.84]	PDF
FLG-A46-0280	\$308.00	40mm [1.57in]	280mm [11.02in]	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	1.44 [3.17]	PDF
FLG-A46-0440	\$392.00		440mm [1.44ft]					2.11 [4.65]	PDF
FLG-A46-0600	\$462.00		600mm [1.96ft]					2.68 [5.91]	PDF
FLG-A46-0760	\$540.00		760mm [2.49ft]					3.11 [6.85]	PDF
FLG-A46-0920	\$611.00		920mm [3.01ft]					3.84 [8.47]	PDF
FLG-A46-1080	\$694.00		1080mm [3.54ft]					4.22 [9.31]	PDF
FLG-A46-1240	\$780.00		1240mm [4.06ft]					4.73 [10.42]	PDF
FLG-A46-1400	\$831.00		1400mm [4.59ft]					5.16 [11.38]	PDF

Mounting hardware included.

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

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Sender/Receiver Pair Object Detection Light Grids FLG Series Specifications	
Voltage Range	24VDC $\pm$ 10%
Current Consumption	Sender <105mA, Receiver < 100mA
Maximum Power	Sender: 2.8W Receiver: 2.65W
Indicator	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.
Protection Circuit	Protection against reverse power connection Power supply surge, Output overcurrent, Output surge
Response Time	FLG-H26 models: 3.4 to 23.4ms, FLG-A46 models: 2.6 to 9.8ms
Operating Temperature	-10 to 55°C [14 to 131°F]
Storage Temperature	-25 to 60°C [-13 to 140°F]
Ambient Humidity	30 to 85%
Enclosure Rating	IP67
Ambient Light Resistance	20,000 lx or less
Vibration Resistance	10 to 55Hz, 1.5mm, 3 axes for 2 hours
Shock Resistance	Max. 100 m/s ² , 3 axes, 6 directions and 3 times in each
Insulation Resistance	20MΩ or more(500VDC)
Withstand Voltage	1000 VAC 50/60 Hz 1min
Material	Housing: Aluminum, Lens: PMMA, Terminal: Zinc alloy
Tightening Torque	M5: 15+/-1 Kgf-cm (13 lbf-in)
Cable	(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
Agency Approval	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
<u>FLG-BRKT-01</u>	\$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	<u>PDF</u>
<u>FLG-BRKT-02</u>	\$7.00	ProSense FLG series mounting bracket, lateral orientable, aluminum. Package of 2. For use with ProSense light grids. Mounting hardware included.	0.17	<u>PDF</u>

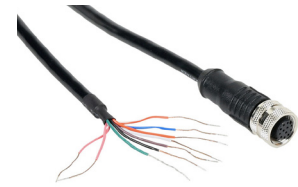
The number of brackets depends on detection height, suggestion in each sender / receiver.
220mm to 300mm requires 1 piece (1 set); 440mm to 1,580mm requires 2 pieces (2 sets).

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Light Grid Cables FLG Series

Features

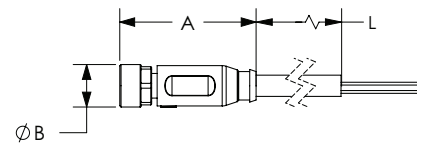
- Industry standard axial M12 screw-lock connectors with open leads
- IP67 protection rating
- Cables listed can be used with patch cables
- 2.5m [8.2ft], 5m [16.4ft], and 10m [32.8ft] cable lengths

**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]	
FLG-WE025	\$22.00	7	Axial female to pigtail	Gray	ProSense light grid senders	PDF	0.25	43 [1.69]	14.5 [0.57]	2.5 [8.2]
FLG-WE050	\$32.00					PDF	0.48			5 [16.4]
FLG-WE100	\$52.00					PDF	0.92			10 [32.8]
FLG-WR025	\$25.00	9	Axial female to pigtail	Black	ProSense light grid receivers	PDF	0.25	43 [1.69]	14.5 [0.57]	2.5 [8.2]
FLG-WR050	\$37.00					PDF	0.48			5 [16.4]
FLG-WR100	\$61.00					PDF	0.93			10 [32.8]

Dimensions



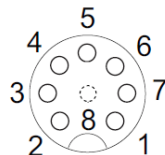
M12 A-coded Cable to Pigtail Specifications

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 mm² [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

