

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
FLG-BRKT-01	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	PDF
FLG-BRKT-02	7.00	ProSense FLG series mounting bracket, lateral orientable, aluminum. Package of 2. For use with ProSense light grids. Mounting hardware included.	0.17	PDF

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

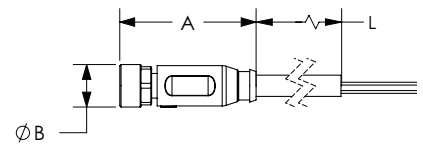


FLG-WR025

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



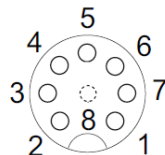
M12 A-coded Cable to Pigtail Specifications

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

