



## Standard automation light grids PLG, PLG3

PLG3-420F431



**Model Name** > [PLG3-420F431](#)  
**Part No.** > [1029132](#)



**At a glance**

- 360° visible job LED
- Range up to 2 m
- Flexible detection heights from 120 mm to 420 mm
- Immune to reflected and ambient light
- Switchable job LED: permanently lit or flashing
- Optically confirms the right bin was picked
- Bus connection possible

**Your benefits**

- The integrated job LED reduces the order picker's search time
- Low assembly costs thanks to the PLG's clever design
- High availability thanks to an integrated polarizing filter
- Tough aluminum housing ensures that sensor damage is kept to a minimum and helps reduce repair costs
- Reflective tape on the sensor avoids additional assembly and cabling costs



**Features**

Technology:	Retro-reflective light grid
Task:	Switching light grid
Minimum detectable object (MDO):	Parallel beam: ≥35 mm
Beam separation:	30 mm
Number of beams:	15
Detection height:	420 mm

**Performance**

Maximum range (PL150):	2 m
Minimum range:	≥100 mm
Working range (PL150):	1.3 m
Response time <sup>1)</sup> :	Parallel beam: > 100 ms
Maximum range (reflective tape REF-PLG):	1.5 m
Working range (reflective tape REF-PLG):	1 m

<sup>1)</sup> With resistive load

**Interfaces**

Output type:	1 x PNP (Q)
Connection type:	Short cable (0.28 m) with connector M12, 4-pin
Input current:	12 mA
Job LED input:	PNP

### Mechanics/electronics

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Wave length:	650 nm
Supply voltage $V_s$ <sup>1)</sup> :	DC 15 V ... 30 V
Power consumption:	< 45 mA
Power consumption sender:	< 45 mA
Current consumption job LED <sup>2)</sup> :	10 mA
Ripple:	< 5 Vpp
Output current $I_{max.}$ :	100 mA
Output load capacitive:	100 nF
Output load inductive:	1 H
Initialization time:	0.6 s
Dimensions (W x H x D):	35.6 mm x 499 mm x 19 mm
Housing material:	Aluminum
Indication:	LED
Enclosure rating:	IP 54
Circuit protection:	Output Q short-circuit protected Interference suppression VS connections reverse-polarity protected
Weight:	500 g
Front screen:	PMMA
Output mode <sup>3)</sup> :	Q dark switching

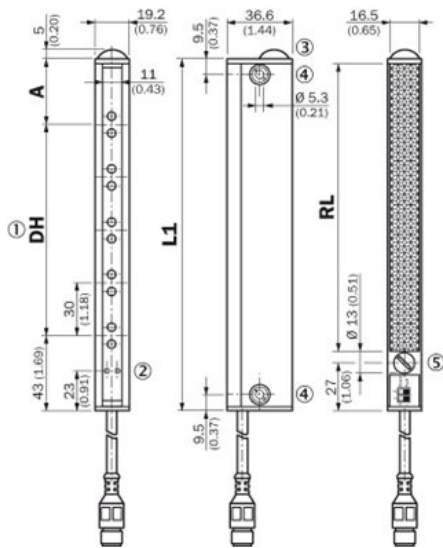
<sup>1) 2)</sup> Typical value <sup>3)</sup> Q = active in case one beam is interrupted, /Q = active in case all beam are free

### Ambient data

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Protection class:	III
EMC:	EN 60947-5-2
Ambient temperature:	Operation: -10 ... 55 °C Storage: -40 ... 70 °C
Vibration resistance:	5 g, 10 Hz ... 55 Hz (IEC 68-2-6)
Shock load:	10 g/DIN EN 60068-2-29/16 ms

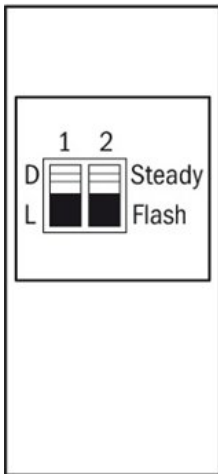
## Dimensional drawing



DH	A	L1	RL
<b>120 (4.72)</b>	36 (1.42)	199 (7.83)	162 (6.38)
<b>210 (8.27)</b>	26 (1.02)	279 (10.98)	242 (9.53)
<b>270 (10.63)</b>	36 (1.42)	349 (13.74)	312 (12.28)
<b>360 (14.17)</b>	26 (1.02)	429 (16.89)	392 (15.43)
<b>420 (16.54)</b>	36 (1.42)	499 (19.65)	462 (18.19)

- |1| Detection height (DH)
- |2| Indicator Power on: green; beam status: yellow
- |3| Job-LED, green
- |4| Mounting hole,  $\varnothing$  5.3 mm
- |5| Configuration switches

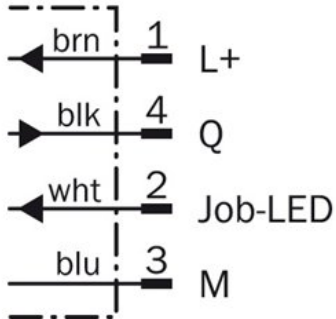
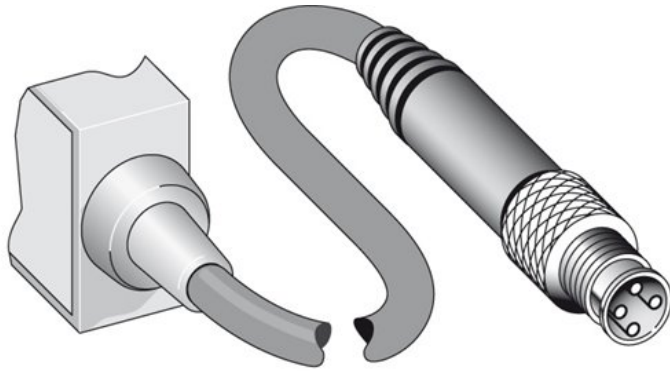
## Adjustments



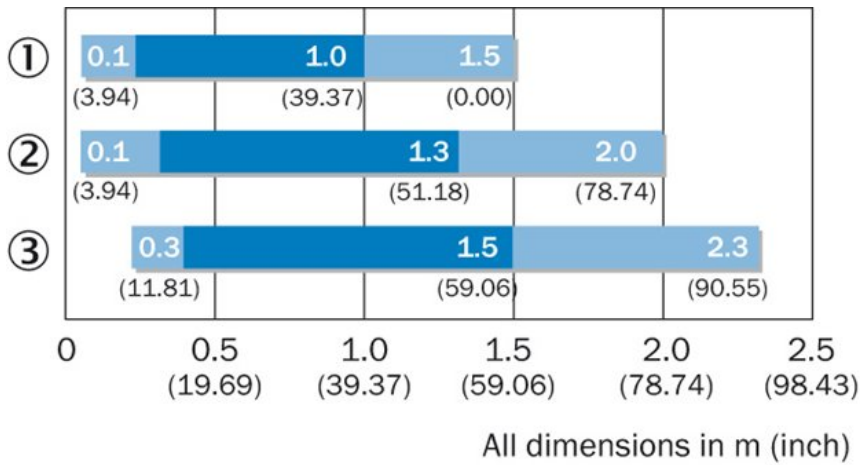
### Configuration over switches

<b>Switch 1</b>	D	Output active, in case of blocked beams
	L	Output inactive, in case of blocked beams
<b>Switch 2</b>	Steady	Job-LED steady
	Flash	Job-LED flashes, 3 Hz

Connection type and diagram



Characteristic curve: range



[1] REF-PLG  
[2] PL150  
[3] PL180

■ Working range    ■ Min./max. range

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