



**IPG**  
**Protective tubing for**  
**MLG, XLG and ELG light grids**

Optimal protection against dust and water jets, self screw mounting for easy retrofit

## IPG protective tubing: the ideal solution in dusty and dirty conditions

The MLG, XLG and ELG light grids from SICK are IP 67 enclosure rating when they are built into the IPG protective tubing. This durable product protects light grids against dust and water jets. The IPG protective pipe is therefore ideal for use in stone, wood and metal manufacturing.

### Excellent durability in harsh environments

The protective tubing is suitable for environments where dust, dirt, water vapor or other liquids are present. Without this protection, deposits on the transparent disk cover might affect the functioning of the automation light grids. For light grids that are mounted horizontally, the likelihood of contamination is reduced due to the round shape of the protective tubing. The IPG protective tubing protects light grids from environmental interference, which ensures access and hazardous areas are reliably monitored.

### Easy retrofitting with screwable end caps

It is quick and easy to equip the MLG, XLG and ELG light grids with the IPG protective tubing. This has the following advantages:

- Durability reduces the risk of contamination and increases the production quality
- Cost savings due to an extended service life and an IP 67 enclosure rating for all materials, including connection cables

#### Use in the food industry

The IPG protective pipe is also available with stainless steel end caps, which allow use in the food industry. An IP 67 enclosure rating is still maintained.



There is a large amount of dust and saw dust in the wood industry. Therefore, the IPG protective tubing is an ideal solution for these applications, as well as for applications that involve processing of stone (marble) and metal.

## IPG protective tubing: individually adaptable to SICK light grids

### Simple sensitivity level adjustment

It is necessary to teach the sensitivity level according to the present sensing range to ensure operationally safe functioning.

For the MLG and XLG light grids, setup is performed via the teach-in input. The ELG light grid, in contrast, can be taught via the potentiometer on the side of the receiver.

#### Reduced sensing range with protective tubing

By using the IPG protective tubing, the sensing range of the light grids decreases according to the following table:

Light grid	Sensing range [m]	Sensing range with protective pipe [m]
MLG	8.5	6.3
	5	3.75
ELG	12	9
	9	6.75
	5	3.75
	3	2.25
	2	1.5
XLG	5	3.75



The IPG protective tubing is available in intervals of 150 mm with lengths between 200 and 2,500 mm.

Optimal protection against dust and water jets, self screw mounting for easy retrofit



**Additional information**

Detailed technical data.....5

Ordering information.....5

Type code.....6

Dimensional drawings.....6

Selection guide MLG/XLG.....5

Accessories.....7

**Product description**

The IPG protective tubing is used for protecting MLG, XLG and ELG light grids. It ensures that the light grids are protected from dust, splashes of water and dirt. The protective tubing can be used in the

steel, wood and metal industry, as well as in the food and beverage industry. The light grids can be easily fitted and retrofitted with the IPG protective tubing thanks to its screwable end caps.

**At a glance**

- Enclosure rating: IP 67
- Operating range of light grids: up to 9m
- Withstands temperatures from -20 °C up to +55 °C
- End caps in aluminium or stainless steel
- Customer can easily screw the protective tubing together
- Can be ordered as an accessory

**Your benefits**

- Cost savings due to the extended service life of the light grids
- Higher production quality because of the reduced risk of dirt
- Easy commissioning and retrofitting
- Fewer costs since no additional sensors need to be mounted
- Increased automation in dusty and dirty conditions possible, improving productivity

→ [www.sick.com/IPG](http://www.sick.com/IPG)

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



## Detailed technical data

### Technical specifications

#### Device protection (mechanical)

Suitable for	Protective tubing for MLG, XLG and ELG light grids
Material	PMMA (protective tubing) Aluminum/stainless steel (end caps, spacer) ABS-plastic (support holder) Polyamid (cable screw connection)
Dimensions (W x H x L)	50 mm x 50 mm x 220 mm ... 2,320 mm
Description	Enclosure rating: IP 67; Ambient temperature from ... to: -20 °C ... +55 °C; Air humidity from ... to: 15 % ... 95 %, non-condensing; Vibration resistance: 5 g (10 Hz ... 55 Hz) (IEC 60068-2-6); Shock resistance: 10 g, 16 ms (IEC 60068-2-29)

## Ordering information

Note: The order of an part no. includes only one IPG protection tube. For sender and receiver one each IPG protection tube is needed.

Material (end caps, spacer)	Monitoring height (MLG, XLG light grid)	Housing length (IPG protective tubing)	Model name <sup>1)</sup>	Part no.
Aluminum	50 mm	128 mm	IPG67-02205111S05	2070373
	100 mm ... 140 mm	220 mm	IPG67-02205111	2070381
	250 mm ... 290 mm	370 mm	IPG67-03705111	2070385
	400 mm ... 440 mm	520 mm	IPG67-05205111	2070392
	550 mm ... 590 mm	670 mm	IPG67-06705111	2070395
	850 mm ... 890 mm	970 mm	IPG67-09705111	2070398
	1,000 mm ... 1,040 mm	1,120 mm	IPG67-11205111	2070401
	1,300 mm ... 1,340 mm	1,420 mm	IPG67-14205111	2070403
	1,450 mm ... 1,490 mm	1,570 mm	IPG67-15705111	2070404
	1,600 mm ... 1,640 mm	1,720 mm	IPG67-17205111	2070405
Stainless steel	2,200 mm ... 2,240 mm	2,320 mm	IPG67-23205111	2070406
	550 mm ... 590 mm	670 mm	IPG67-06705211	2069856
	850 mm ... 890 mm	970 mm	IPG67-09705211	2069209
	1,000 mm ... 1,040 mm	1,120 mm	IPG67-11205211	2070080

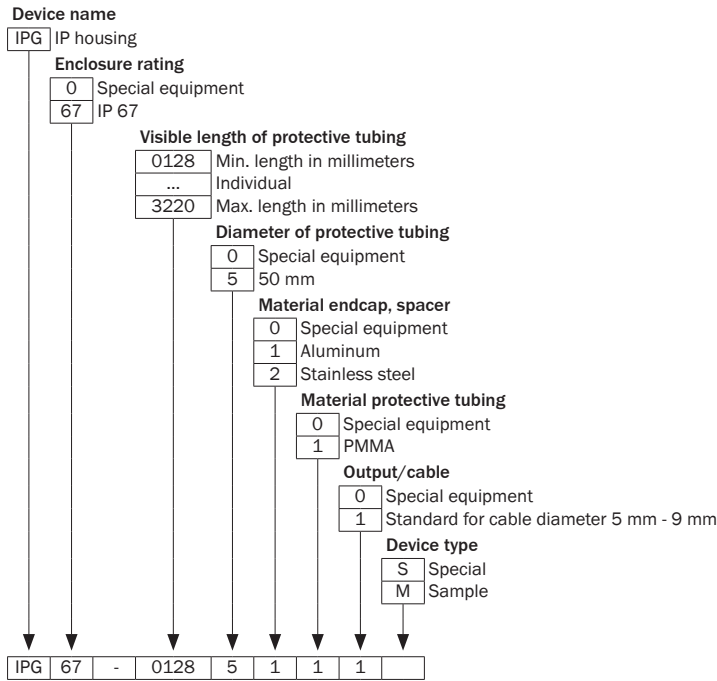
<sup>1)</sup> IPG for MLG PROFIBUS available online.

## Selection guide MLG/XLG

### MLG PROFIBUS/ELG and currently not available length on request

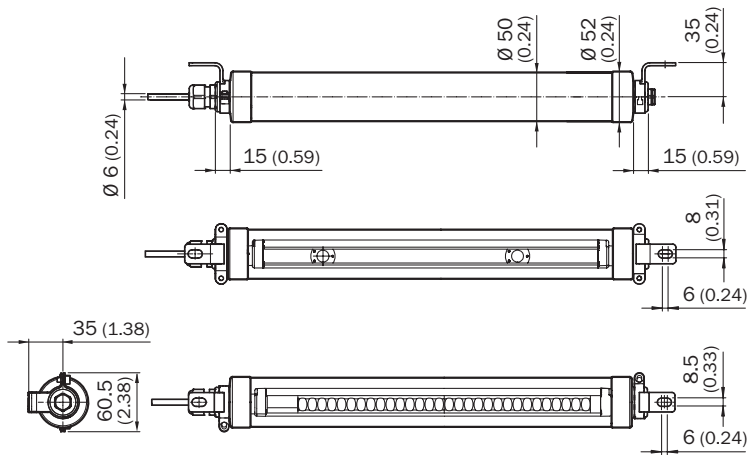
Monitoring height (L) mm	Protection tubing (L) mm	Monitoring height (L) mm	Protection tubing (L) mm	Monitoring height (L) mm	Protection tubing (L) mm
<b>50</b>	128	<b>1,150 ... 1,190</b>	1,270	<b>2,350 ... 2,390</b>	2,470
<b>100 ... 140</b>	220	<b>1,300 ... 1,340</b>	1,420	<b>2,500 ... 2,540</b>	2,620
<b>250 ... 290</b>	370	<b>1,450 ... 1,490</b>	1,570	<b>2,650 ... 2,690</b>	2,770
<b>400 ... 440</b>	520	<b>1,600 ... 1,640</b>	1,720	<b>2,800 ... 2,840</b>	2,920
<b>550 ... 590</b>	670	<b>1,750 ... 1,790</b>	1,870	<b>2,900 ... 2,950</b>	3,070
<b>700 ... 740</b>	820	<b>1,900 ... 1,940</b>	2,020	<b>3,100 ... 3,140</b>	3,220
<b>850 ... 890</b>	970	<b>2,050 ... 2,090</b>	2,170		
<b>1,000 ... 1,040</b>	1,120	<b>2,200 ... 2,240</b>	2,320		

## Type code



## Dimensional drawings


dimensions in mm (inch)



**Accessories**

Other mounting accessories

**Mounting tools**

Figure	Description	Model name	Part no.
	Mounting tool for M12 cable socket, small housing	Installation wrench	4034690

Terminal and alignment brackets

**Alignment brackets**

Figure	Description	Model name	Part no.
	Stainless steel support bracket	BEF-2AAAADES2	2026849
	Stainless steel bracket, rotatable	BEF-2SMMEAES4	2023708
	Reinforced stainless steel bracket, rotatable	BEF-2SMMVAES4	2026850

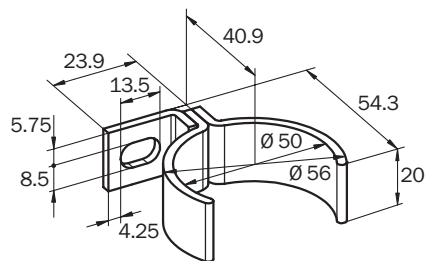
**Dimensional drawings accessories**

dimensions in mm

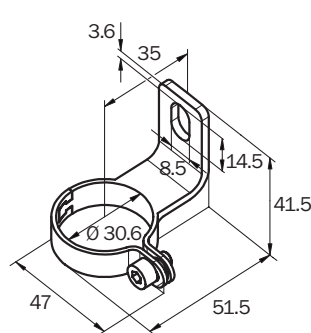
Terminal and alignment brackets

**Alignment brackets**

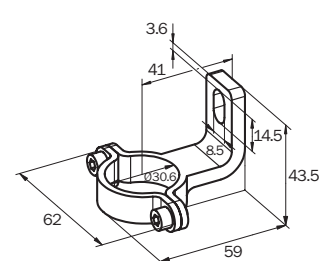
**BEF-2AAAADES2**



**BEF-2SMMEAES4**



**BEF-2SMMVAES4**





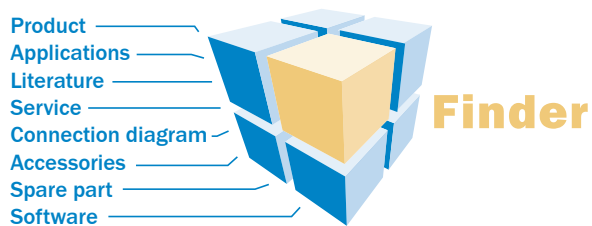






## www.mysick.com – search online and order

Search online quickly and safely – with the SICK “Finders”

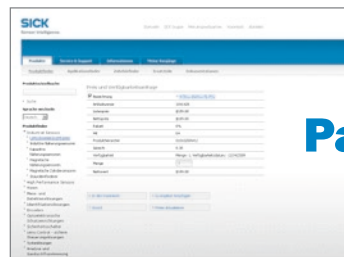


**Product Finder:** We can help you to quickly target the product that best matches your application.

**Applications Finder:** Select the application description on the basis of the challenge posed, industrial sector, or product group.

**Literature Finder:** Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

Efficiency – with the e-commerce tools from SICK



**Partner Portal**  
www.mysick.com

**Find out prices and availability:** Determine the price and possible delivery date of your desired product simply and quickly at any time.

**Request or view a quote:** You can have a quote generated online here. Every quote is confirmed to you via e-mail.

**Order online:** You can go through the ordering process in just a few steps.

## For safety and productivity: SICK LifeTime Services

SICK LifeTime Services is a comprehensive set of high-quality services provided to support the entire life cycle of products and applications from system design all the way to upgrades. These services increase the safety of people, boost the productivity of machines and serve as the basis for our customers’ sustainable business success.



**Consulting & Design**

Globally available experts for cost-effective solutions



**Product & System Support**

Fast and reliable, by telephone or on location



**Verification & Optimization**

Checks and recommendations for increased availability



**Upgrade & Retrofits**

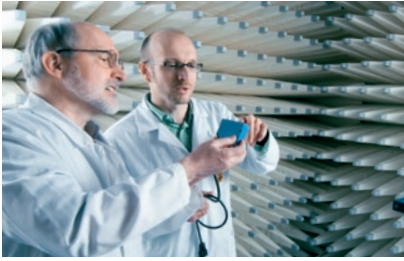
Uncovers new potential for machines and systems



**Training & Education**

Employee qualification for increased competitiveness

## SICK at a glance



### Leading technologies

With a staff of more than 5,800 and nearly 50 subsidiaries and representations worldwide, SICK is one of the leading and most successful manufacturers of sensor technology. The power of innovation and solution competency have made SICK the global market leader. No matter what the project and industry may be, talking with an expert from SICK will provide you with an ideal basis for your plans – there is no need to settle for anything less than the best.



### Unique product range

- Non-contact detecting, counting, classifying, positioning and measuring of any type of object or media
- Accident and operator protection with sensors, safety software and services
- Automatic identification with bar code and RFID readers
- Laser measurement technology for detecting the volume, position and contour of people and objects
- Complete system solutions for analysis and flow measurement of gases and liquids



### Comprehensive services

- SICK LifeTime Services – for safety and productivity
- Application centers in Europe, Asia and North America for the development of system solutions under real-world conditions
- E-Business Partner Portal [www.mysick.com](http://www.mysick.com) – price and availability of products, requests for quotation and online orders

Worldwide presence with subsidiaries in the following countries:

Australia  
Belgium/Luxembourg  
Brasil  
Česká Republika  
Canada  
China  
Danmark  
Deutschland  
España  
France  
Great Britain  
India  
Israel  
Italia  
Japan

México  
Nederland  
Norge  
Österreich  
Polska  
România  
Russia  
Schweiz  
Singapore  
Slovenija  
South Africa  
South Korea  
Suomi  
Sverige  
Taiwan  
Türkiye  
United Arab Emirates  
USA

Please find detailed addresses and additional representatives and agencies in all major industrial nations at [www.sick.com](http://www.sick.com)