



# LIGHT

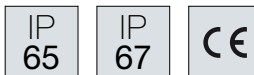
IP65-IP67

## Watertight junction boxes

The LIGHT series is a set of watertight surface boxes intended for electrical junctions or for trunking boxes.

They can also be used to build electrical or electronic switchboards. With the right accessories, small terminal junction boxes can be built, and power sockets can be used to create small electric power supply blocks.

This series is completed with the motor-protection and electrical and electronic protection boxes for machine tools or similar applications.



### LIGHT Technical Specifications

- **Degree of protection:** IP65-IP67\*.
- **Resistance to impact:** IK07.
- **Glow wire resistance:** 650 °C.
- **Ambient temperature range:** -25 °C / +40 °C.
- **Maximum operating voltage:** 1000 V AC/1500 V DC.
- **Double insulation:** Class II.

\* Except ref. EP048. EP088 and EX088 (IP54).

### LIGHT Certifications

Compliant with the Low Voltage Directive 2014/35/EU.  
Standards: IEC 60998-2-5 and IEC 60670-22.

# LIGHT

## IP65-IP67 junction boxes



### Product series

#### Standard:

- Seven watertight junction boxes.
- Three watertight motor-protection boxes.
- Each of these models is manufactured in three different versions:
  - With conical cable glands.
  - With knock-out sides.
  - With plain sides.
- The three largest models are available with opaque or transparent cover.
- A series of assemblies with standard power sockets is offered.

#### Special:

- Using the basic versions, special versions can be created to suit the needs of each customer or to comply with the specific regulations of the target markets.
- Special assemblies with power sockets can be supplied in any combination, with no minimum order quantity.

### Supply

- The boxes are supplied individually, shrink-wrapped and in multiple cardboard packaging, according to minimum packaging units.
- EP048 is not supplied shrink-wrapped, it is supplied with the label over the cover.
- Boxes with conical cable glands are supplied with the cone assembled.
- Accessory bag: Bag with 2 arrow screws plus 2 screws without arrow.

### Material

- Halogen-free plastic materials.
- Opaque base and cover: Shock-proof PS RAL 7035.
- Transparent cover: PC tinted window, with UV protection.
- Conical cable glands: PVC.

Possibility of special assemblies with no minimum order quantity

### Table for DIN rails

Box type	Direction	Hole distance	Rail length	Reference No.
		(mm)	(mm)	
Boxes 111	Vertical	77,5	87,5	<b>98460</b>
	Horizontal	77,5	87,5	
Boxes 161	Vertical	77,5	87,5	<b>98460</b>
	Horizontal	127	137	
Boxes 171	Vertical	127	137	<b>92713</b>
	Horizontal	127	137	
Boxes 231	Vertical	139	159	<b>92721</b>
	Horizontal	187	207	
Boxes 322	Vertical	187	207	<b>92722</b>
	Horizontal	262	271	



## Base

- The junction and motor-protection boxes are available in three versions:
  - Plain sides.
  - Sides with closed knock-outs, adapted to the metric and easy to remove.
  - Sides with cut-outs for fitting conical cable glands.
- The wall-mounting points are located at the bottom of the base and can be hermetically isolated using caps that guarantee the box's IP protection and dielectric strength. These caps are supplied as an accessory (Ref. 77650).
- There are also slotted ribs at the bottom of the base for securing tap-off terminals and plates.
- The supports for securing the DIN rails are also located there. They can be ordered as an accessory (see page 289).
- There are closed knock-outs on the outside of the box bottom to facilitate the entry of cables from the back.
- There are vertical ribs on the four inside walls to give the part greater rigidity.
- There are also open or closed cut-outs, depending on the versions. These cut-outs have a diameter of 25 or 40 mm and the number and size depends on the box size.

## Covers

- The covers are smooth and rounded and, together with the inside ribs, afford the whole unit excellent rigidity.
- In the 111 to 322 models, the covers have a continuous recess for an injected rubber gasket that guarantees maximum IP65-IP67 protection. These covers have a clip to make the screws captive.
- The EP048 and EP088 models have a base-cover clipping system that delivers IP54 protection.
- The covers used for motor-protection boxes are higher to be able to house the electrical devices typical of this type of box.

## Screws

- These boxes are supplied with four ¼ turn plastic screws made captive by means of a clip located on the cover. The covers of the references EP048 and EP088 are clipped without screws.
- Two of the screws have pins that give the cover a hinge effect and keep the unit together.
- These screws have a hole through them, and once in place they face a hole in the cover, making it possible to seal the box and prevent access to the inside, except model 322.



## Conical cable glands

- The conical cable glands have diameters of 25 mm and 40 mm.
- They are supplied in the EP\*\*\* and EV\*\*\* versions and are always assembled in the box.
- The cones are manufactured with a flexible material in PVC that guarantees a suitable degree of protection in all cases.
- The design of the cones consists of rings placed at different heights. Each one of these rings corresponds to a pipe diameter for electrical installations, so that if they are cut to different heights the pipe can be inserted into the box through the conical cable gland, maintaining a perfect fit and guaranteeing watertightness.

## Hinges

- Option to fit hinges between the cover and the base for all models of boxes and motor housings.
- The hinges come with markings showing the position of the screws for their attachment.

### Ø of rings depending on cone model

Cones	Size 1	Size 2	Size 3	Size 4	Size 5
<b>M25</b>	-	-	20 mm	16 mm	20 mm <sup>2</sup>
<b>M40</b>	32 mm	25 mm	-	16 mm	20 mm <sup>2</sup>

# LIGHT

## IP65-IP67 junction boxes

### Boxes with grey cover

Ref. No.	Dimensions			Description	Cable entry No. conical glands		Weight kg	Power dissipation according to temperature increase °C P(W)				
	HEIGHT	WIDTH	DEPTH		M25	M40		20	25	30	35	40
<b>EP048</b>	Ø84x50			With conical cable glands	4	-	0.1	1.6	2.0	2.4	2.9	3.3
<b>EP088</b>	95	95	52	With conical cable glands	7	-	0.1	1.6	2.0	2.4	2.9	3.3
<b>EV111</b>	121	121	68	With conical cable glands	7	-	0.2	2.7	3.4	4.0	4.7	5.4
<b>EV161</b>	133	180	80	With conical cable glands	6	4	0.3	3.8	4.7	5.7	6.6	7.6
<b>EV171</b>	167	191	100	With conical cable glands	6	4	0.4	6.0	7.5	9.0	10.5	12.1
<b>EV231</b>	197	260	100	With conical cable glands	4	6	0.5	8.6	10.8	13.0	15.1	17.3
<b>EV322</b>	253	342	132	With conical cable glands	-	12	0.9	15.7	19.6	23.6	27.5	31.4
<b>EX088</b>	89	89	52	Knock-out entries	7	-	0.1	1.6	2.0	2.4	2.9	3.3
<b>EX111</b>	113	113	68	Knock-out entries	7	-	0.1	2.7	3.4	4.0	4.7	5.4
<b>EX161</b>	121	166	80	Knock-out entries	6	4	0.2	3.8	4.7	5.7	6.6	7.6
<b>EX171</b>	155	179	100	Knock-out entries	6	4	0.3	6.0	7.5	9.0	10.5	12.1
<b>EX231</b>	185	246	100	Knock-out entries	4	6	0.5	8.6	10.8	13.0	15.1	17.3
<b>EX322</b>	243	333	132	Knock-out entries	-	12	1.0	15.7	19.6	23.6	27.5	31.4
<b>EL111</b>	113	113	68	Plain sides	-	-	0.1	2.7	3.4	4.0	4.7	5.4
<b>EL161</b>	121	166	80	Plain sides	-	-	0.2	3.8	4.7	5.7	6.6	7.6
<b>EL171</b>	155	179	100	Plain sides	-	-	0.3	6.0	7.5	9.0	10.5	12.1
<b>EL231</b>	185	246	100	Plain sides	-	-	0.5	8.6	10.8	13.0	15.1	17.3
<b>EL322</b>	243	333	132	Plain sides	-	-	1.0	15.7	19.6	23.6	27.5	31.4

#### HALOGEN-FREE PLASTIC MATERIALS

Base and grey cover: PS RAL 7035 - Cones: PVC RAL 7035.

Surface boxes.

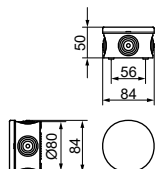
References EP048-EP088-EX088: IP54.

References EV: IP65.

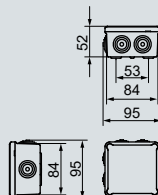
References EX-EL: IP65-IP67.



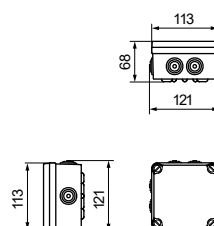
**EP048**



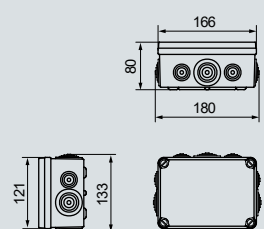
**EP/EX088**



**EV/EX/EL111**



**EV/EX/EL161**



## Boxes with transparent cover

Ref. No.	Dimensions			Description	Cable entry No. conical glands		Weight kg	Power dissipation according to temperature increase °C P(W)				
	HEIGHT	WIDTH	DEPTH		M25	M40		20	25	30	35	40
<b>EVT171</b>	167	191	100	With conical cable glands	6	4	0.4	6.0	7.5	9.0	10.5	12.1
<b>EVT231</b>	197	260	100	With conical cable glands	4	6	0.6	8.6	10.8	13.0	15.1	17.3
<b>EVT322</b>	253	342	132	With conical cable glands	-	12	1.0	15.7	19.6	23.6	27.5	31.4
<b>EXT171</b>	155	179	100	Knock-out entries	6	4	0.4	6.0	7.5	9.0	10.5	12.1
<b>EXT231</b>	185	246	100	Knock-out entries	4	6	0.5	8.6	10.8	13.0	15.1	17.3
<b>EXT322</b>	243	333	132	Knock-out entries	-	12	1.0	15.7	19.6	23.6	27.5	31.4
<b>ELT171</b>	155	179	100	Plain sides	-	-	0.4	6.0	7.5	9.0	10.5	12.1
<b>ELT231</b>	185	246	100	Plain sides	-	-	0.5	8.6	10.8	13.0	15.1	17.3
<b>ELT322</b>	243	333	132	Plain sides	-	-	1.0	15.7	19.6	23.6	27.5	31.4

### HALOGEN-FREE PLASTIC MATERIALS

Base: PS RAL 7035 - Transparent cover: PC, tinted, with UV protection - Cones: PVC RAL 7035.

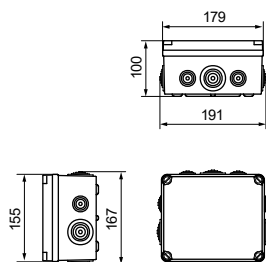
Surface boxes.

References EVT: IP65.

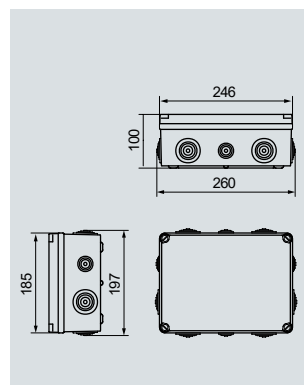
References EXT-ELT: IP65-IP67.



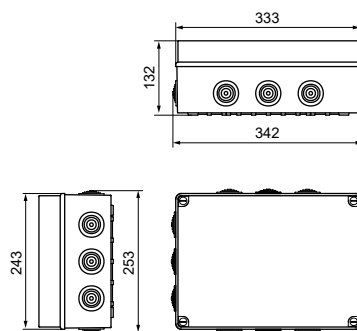
**EV/EX/EL171**  
**EVT/EXT/ELT/171**



**EV/EX/EL231**  
**EVT/EXT/ELT231**



**EV/EX/EL322**  
**EVT/EXT/ELT322**





# LIGHT

## IP65-IP67 junction boxes

### Motor-protection boxes with grey cover

Ref. No.	Dimensions			Description	Cable entry No. conical glands		Weight kg	Power dissipation according to temperature increase °C P(W)				
	HEIGHT	WIDTH	DEPTH		M25	M40		20	25	30	35	40
<b>GSV171</b>	167	191	160	With conical cable glands	6	4	0.5	8.2	10.2	12.3	14.3	16.4
<b>GSV231</b>	197	260	180	With conical cable glands	4	6	0.7	12.4	15.4	18.5	21.6	24.7
<b>GSV322</b>	253	342	191	With conical cable glands	-	12	1.3	19.4	24.2	29.1	33.9	38.8
<b>GSX171</b>	155	179	160	Knock-out entries	6	4	0.4	8.2	10.2	12.3	14.3	16.4
<b>GSX231</b>	185	246	180	Knock-out entries	4	6	0.7	12.4	15.4	18.5	21.6	24.7
<b>GSX322</b>	243	333	191	Knock-out entries	-	12	1.3	19.4	24.2	29.1	33.9	38.8
<b>GSL171</b>	155	179	160	Plain sides	-	-	0.4	8.2	10.2	12.3	14.3	16.4
<b>GSL231</b>	185	246	180	Plain sides	-	-	0.7	12.4	15.4	18.5	21.6	24.7
<b>GSL322</b>	243	333	191	Plain sides	-	-	1.3	19.4	24.2	29.1	33.9	38.8

#### HALOGEN-FREE PLASTIC MATERIALS

Base and cover: PS RAL 7035 - Cones: PVC RAL 7035.

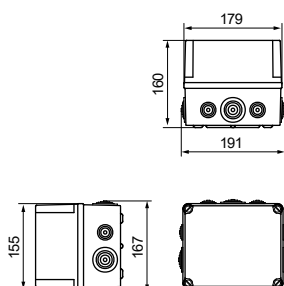
Surface boxes - High cover.

References GSV: IP65.

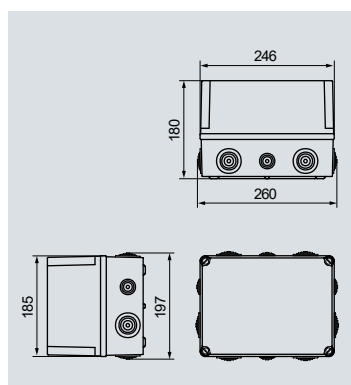
References GSX-GSL: IP65-IP67.



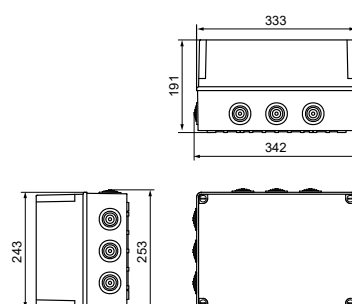
**GSV/GSX/GSL171**



**GSV/GSX/GSL231**



**GSV/GSX/GSL322**



## Motor-protection boxes with transparent cover

Ref. No.	Dimensions			Description	Cable entry No. conical glands		Weight kg	Power dissipation according to temperature increase °C P(W)				
	HEIGHT	WIDTH	DEPTH		M25	M40		20	25	30	35	40
<b>GSVT171</b>	167	191	160	With conical cable glands	6	4	0.5	8.2	10.2	12.3	14.3	16.4
<b>GSVT231</b>	197	260	180	With conical cable glands	4	6	0.8	12.4	15.4	18.5	21.6	24.7
<b>GSVT322</b>	253	342	191	With conical cable glands	-	12	1.3	19.4	24.2	29.1	33.9	38.8
<b>GSXT171</b>	155	179	160	Knock-out entries	6	4	0.5	8.2	10.2	12.3	14.3	16.4
<b>GSXT231</b>	185	246	180	Knock-out entries	4	6	0.7	12.4	15.4	18.5	21.6	24.7
<b>GSXT322</b>	243	333	191	Knock-out entries	-	12	1.4	19.4	24.2	29.1	33.9	38.8
<b>GSLT171</b>	155	179	160	Plain sides	-	-	0.5	8.2	10.2	12.3	14.3	16.4
<b>GSLT231</b>	185	246	180	Plain sides	-	-	0.7	12.4	15.4	18.5	21.6	24.7
<b>GSLT322</b>	243	333	191	Plain sides	-	-	1.4	19.4	24.2	29.1	33.9	38.8

### HALOGEN-FREE PLASTIC MATERIALS

Base: PS RAL 7035 - Cones: PVC RAL 7035.

Transparent cover: PC, tinted, with UV protection.

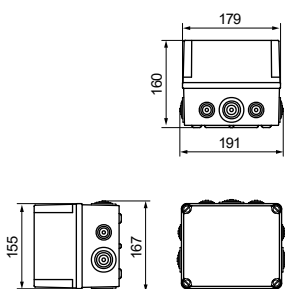
Surface boxes - High cover.

References GSVT: IP65.

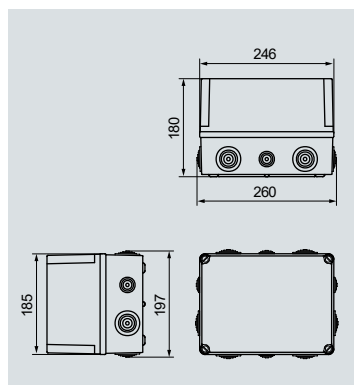
References GSXT-GSLT: IP65-IP67.



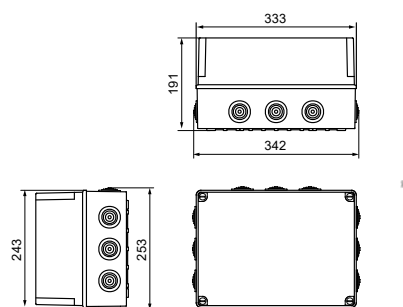
**GSVT/GSXT/GSLT171**



**GSVT/GSXT/GSLT231**



**GSVT/GSXT/GSLT322**



# LIGHT

## IP65-IP67 junction boxes

### Special assemblies



Empty boxes.



Boxes with assembled and wired power sockets.

### How to proceed



1. SELECT THE BOX.



2. CHOOSE THE POWER SOCKETS.



3. SUBMIT ALL THE INFORMATION TO OUR TECHNICAL DEPARTMENT.

You can request a quotation and technical assessment at [export@ide.es](mailto:export@ide.es)

Special assemblies can be supplied in any combination, with no minimum order quantity

### Proposal of sockets for Light boxes

#### SCHUKO-TYPE FLUSH-FIT SOCKETS



REF.	Poles	I	IP
00102	2P+E	16 A	44
00452	2P+E	16 A	54
00105	2P+E	16 A	67

#### IP44 FLUSH-FIT SOCKETS



REF.	Poles	I	Voltage
02301	2P+E	16 A	200/250 V
03302	3P+E	16 A	380/415 V
03303	3P+N+E	16 A	200/415 V
02304	2P+E	32 A	200/250 V
03305	3P+E	32 A	380/415 V
03306	3P+N+E	32 A	200/415 V

#### IP67 FLUSH-FIT SOCKETS



REF.	Poles	I	Voltage
02801	2P+E	16 A	200/250 V
03802	3P+E	16 A	380/415 V
03803	3P+N+E	16 A	200/415 V
02804	2P+E	32 A	200/250 V
03805	3P+E	32 A	380/415 V
03806	3P+N+E	32 A	200/415 V

See our full range of plugs and sockets on page 388





## LIGHT Accessories

### Mounting plates

	Ref. No.
Metal plate for boxes Ref. 171	<b>92123</b>
Metal plate for boxes Ref. 231	<b>92125</b>
Low metal plate for boxes Ref. 322	<b>92127</b>
High metal plate for boxes Ref. 322	<b>92129</b>
Polyester plate for boxes Ref. 111	<b>92119</b>
Polyester plate for boxes Ref. 161	<b>92121</b>
Polyester plate for boxes Ref. 171	<b>92122</b>
Polyester plate for boxes Ref. 231	<b>92124</b>
Low polyester plate for boxes Ref. 322	<b>92126</b>
High polyester plate for boxes Ref. 322	<b>92128</b>

### Conical glands

	Ref. No.
25 diameter conical glands	<b>77952</b>
25 HF* diameter conical glands	<b>77953</b>
40 diameter conical glands	<b>77962</b>
40 HF* diameter conical glands	<b>77963</b>

\* HF: Halogen-free conical glands.

### Fitting high plates



- Metal and polyester high plates for boxes and motor housings (type 322).
- The high plates allow for a space of 14 mm between the plate and the base.
- To be installed it is necessary to request the 4x10 screws. Ref. 98156.

### Screws

	Ref. No.
4x10 screw for installing plates and rails	<b>98156</b>
Hermetic caps	<b>77650</b>
1/4 turn screw (2 partially threaded screws + 2 threaded screws)	<b>94217</b>
1/4 turn screw for 322-type boxes (4 unit bag)	<b>94219</b>

### Rails

	Ref. No.
Rail 87,5 mm for 111 boxes	<b>98460</b>
Rail 137 mm for 161-171 boxes	<b>92713</b>
Rail 159 mm for 231 boxes	<b>92721</b>
Rail 207 mm for 231-322 boxes	<b>92722</b>
Rail 271 mm for 322 boxes	<b>92714</b>

### Fitting low plates



- Metal and polyester low plates for boxes and motor housings (type 322).
- Low plates help take full advantage of the depth of the box.
- To be installed it is necessary to request the 4x10 screws. Ref. 98156.

## Hinges



### Reference No. Description

**22050** | Hinge (2-pieces bag)

**MATERIAL:** Polyamide 6.

**CHARACTERISTICS:** Presents marking grooves to facilitate screw placement. When placing the hinge it is necessary to cut the screw with arrow. Degree of protection IP65.

**SUPPLY:** 2-units bag.

## Wall-support



### Reference No. Description

**22060** | Wall-support (4-pieces bag)

**MATERIAL:** Polystyrene.

**CHARACTERISTICS:** Allows the box to be fixed to the wall from the outside. Includes the necessary screws for installation.

**SUPPLY:** 4-units bag.



## IDE ELECTRIC

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### Head office

Leonardo da Vinci 2  
Pol. Ind. Los Huertos  
E-50800 Zuera (Zaragoza)  
SPAIN

### Warehouse and logistics

Guttemberg 48  
Pol. Ind. Los Huertos  
E-50800 Zuera (Zaragoza)  
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