



# EXS-12D6813A020

deTec

SAFETY LIGHT CURTAINS

**SICK**  
Sensor Intelligence.



Illustration may differ

Ordering information

Note	Resolution	Scanning range	Protective field height	System part	Type	Part no.
Sensor pre-assembled in explosion-proof enclosure including connecting cable (30 m, 8-wire, flying leads). Depending on national regulations and requirements, a cable gland may have to be installed. The cable gland is available as an accessory., Sensor pre-assembled in explosion-proof enclosure including connecting cable (30 m, 8-wire, flying leads). Depending on national regulations and requirements, a cable gland may have to be installed. The cable gland is available as an accessory.	30 mm	25.2 m	1,500 mm	Sender	EXS-12D6813A020	1097714

Sensor pre-assembled in explosion-proof enclosure including connecting cable (30 m, 8-wire, flying leads). Depending on national regulations and requirements, a cable gland may have to be installed. The cable gland is available as an accessory.

Other models and accessories → [www.sick.com/deTec](http://www.sick.com/deTec)



## Detailed technical data

### Features

<b>Sub product family</b>	deTec4 Ex
<b>Application</b>	Explosive areas
<b>Ex-approvals</b>	ATEX for gas: II 2 G Ex db IIB T6 ATEX for dust: II 2 D Ex tb IIIC T56 °C Db IP6X NFPA 70/NEC 500 Class I, Div. 1, Groups C and D NFPA 70/NEC 500 Class II, Div. 1, Groups E, F and G NFPA 70/NEC 500 Class III, Div. 1
<b>System part</b>	Sender
<b>Resolution</b>	30 mm
<b>Scanning range</b>	25.2 m
<b>Protective field height</b>	1,500 mm
<b>Synchronization</b>	Optical synchronisation
<b>Integrated laser alignment aid</b>	✓
<b>Items supplied</b>	Sender in explosion-proof enclosure with connecting cable, 30 m 2 handles including screws

### Safety-related parameters

<b>Type</b>	Type 4 (IEC 61496-1)
<b>Safety integrity level</b>	SIL 3 (IEC 61508)
<b>Category</b>	Category 4 (ISO 13849-1)
<b>Performance level</b>	PL e (ISO 13849-1)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	15.3 x 10 <sup>-9</sup>
<b>T<sub>M</sub> (mission time)</b>	20 years (ISO 13849-1)
<b>Safe state in the event of a fault</b>	At least one OSSD is in the OFF state.

### Functions

<b>Protective operation</b>	✓
<b>Automatic calibration of the protective field width</b>	✓
<b>Beam coding</b>	✓

### Interfaces

<b>System connection</b>	Connecting cable, 30 m, flying lead, 8-wire
Cable diameter	5.8 mm
Conductor cross section	0.25 mm <sup>2</sup>
<b>Extension connection</b>	-
<b>Configuration method</b>	DIP switch on system plug
<b>Display elements</b>	LEDs

### Electrical data

<b>Protection class</b>	III (IEC 61140)
<b>Supply voltage V<sub>s</sub></b>	24 V DC (19.2 V ... 28.8 V)
<b>Ripple</b>	≤ 10 %
<b>Power consumption typical</b>	1.82 W (DC)

Mechanical data

<b>Dimensions</b>	See dimensional drawing
<b>Housing cross-section</b>	161.8 mm x 142.1 mm
<b>Housing material</b>	Aluminum cast/AISI7Mg0.6

Ambient data

<b>Enclosure rating</b>	IP65 (IEC 60529) IP66 (IEC 60529)
<b>Ambient operating temperature</b>	-20 °C ... +55 °C
<b>Storage temperature</b>	-30 °C ... +70 °C
<b>Air humidity</b>	15 % ... 95 %, Non-condensing
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (IEC 60068-2-6)
<b>Shock resistance</b>	10 g, 16 ms (IEC 60068-2-27)

Other information






<b>Wave length</b>	850 nm
<b>Type of light</b>	Near-infrared (NIR), invisible
<b>Integrated laser alignment aid</b>	✓
Laser class	1
Wave length	650 nm
Type of light	Visible red light

Classifications

<b>ECLASS 5.0</b>	27272704
<b>ECLASS 5.1.4</b>	27272704
<b>ECLASS 6.0</b>	27272704
<b>ECLASS 6.2</b>	27272704
<b>ECLASS 7.0</b>	27272704
<b>ECLASS 8.0</b>	27272704
<b>ECLASS 8.1</b>	27272704
<b>ECLASS 9.0</b>	27272704
<b>ECLASS 10.0</b>	27272704
<b>ECLASS 11.0</b>	27272704
<b>ECLASS 12.0</b>	27272704
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549
<b>ETIM 7.0</b>	EC002549
<b>ETIM 8.0</b>	EC002549
<b>UNSPSC 16.0901</b>	46171620

## Recommended accessories

Other models and accessories → [www.sick.com/deTec](http://www.sick.com/deTec)

	Brief description	Type	Part no.
Alignment aids			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!, 19 mm x 67.3 mm x 66.9 mm	AR60	1015741
Test and monitoring tools			
	30 mm diameter, 250 mm length	Test rod 30 mm	2022602
Terminal and alignment brackets			
	2 pieces, alignment bracket for explosion-proof enclosure	BEF-1SHABRST2	2072525
Safety switching amplifier			
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Output expansion module for OSSDs</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> no</li> <li>• <b>External device monitoring (EDM):</b> Via path</li> <li>• <b>Outputs:</b> 2 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe)</li> <li>• <b>Housing width:</b> 18 mm</li> </ul>	RLY3-OSSD100	1085343
	<ul style="list-style-type: none"> <li>• <b>Applications:</b> Output expansion module for OSSDs</li> <li>• <b>Compatible sensor types:</b> Safety sensors with OSSDs</li> <li>• <b>Connection type:</b> Front connector with spring terminals</li> <li>• <b>Restart interlock:</b> no</li> <li>• <b>External device monitoring (EDM):</b> Via path</li> <li>• <b>Outputs:</b> 4 enabling current paths (safe), 1 feedback current path (for use as external device monitoring, not safe), 1 signaling current path (not safe)</li> <li>• <b>Housing width:</b> 28 mm</li> </ul>	RLY3-OSSD400	1099971

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)