



## S32B-3011EA

S300 Mini

SAFETY LASER SCANNERS

**SICK**  
Sensor Intelligence.



## Ordering information

Sub product family	Scanning angle	Protective field range	Number of fields	Type	Part no.
S300 Mini Remote	270°	3 m	48	S32B-3011EA	1056431

## Usage

Only use preassembled extension cables. See "Accessories" for suitable cables.

Other models and accessories → [www.sick.com/S300\\_Mini](http://www.sick.com/S300_Mini)

Illustration may differ



## Detailed technical data

## Features

<b>Usage</b>	Can only be used in the EFI system network, e.g., with a Flexi Soft safety controller and an additional S300 or S3000 safety laser scanner
<b>Sub product family</b>	S300 Mini Remote
<b>Application</b>	Indoor
<b>Protective field range</b>	3 m
<b>Warning field range</b>	8 m (at 15 % reflectivity)
<b>Distance measuring range</b>	30 m
<b>Type of field set</b>	Triple field sets
<b>Number of field sets</b>	16
<b>Number of fields</b>	48
<b>Number of monitoring cases</b>	32
<b>Scanning angle</b>	270°
<b>Resolution (can be configured)</b>	30 mm, 40 mm, 50 mm, 70 mm, 150 mm
<b>Angular resolution</b>	0.5°
<b>Response time</b>	80 ms <sup>1)</sup>
<b>Protective field supplement</b>	100 mm
<b>Number of multiple samplings</b>	2 ... 16, configurable
<b>Delay of automatic reset</b>	2 s ... 60 s, configurable

<sup>1)</sup> Depending on basic response time and multiple sampling.

## Safety-related parameters

<b>Type</b>	Type 3 (IEC 61496)
<b>Safety integrity level</b>	SIL 2 (IEC 61508)

<b>Category</b>	Category 3 (EN ISO 13849)
<b>Performance level</b>	PL d (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	$8.0 \times 10^{-8}$
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)

#### Functions

<b>Multiple sampling</b>	✓
<b>Monitoring case switching</b>	✓
<b>Static protective field switching</b>	✓
<b>Dynamic protective field switching</b>	✓
<b>Contour as a reference</b>	✓
<b>Measured data output</b>	None
<b>Safe SICK device communication via EFI</b>	✓

#### Interfaces

<b>Connection type</b>	Cable, 250 mm, with male connector M12, 7-pin
<b>Inputs</b>	
Static control inputs with EFI	5 <sup>1)</sup>
Standby	1 <sup>1)</sup>
<b>Outputs</b>	Depends on the configuration of the connected EFI device
<b>Configuration method</b>	PC with CDS (Configuration and Diagnostic Software)
<b>Configuration and diagnostics interface</b>	RS-232
Transmission rate	38.4 kBaud
<b>Safe SICK device communication via EFI</b>	
Transmission rate	≤ 500 kBaud
Length of cable	≤ 20 m <sup>2)</sup>

<sup>1)</sup> Can only be used in the EFI system network, e.g., with a Flexi Soft safety controller and an additional S300 or S3000 safety laser scanner.

<sup>2)</sup> Only preassembled extension cables permitted.

#### Electronics

<b>Protection class</b>	III (EN 50178, EN 60950)
<b>Supply voltage V<sub>s</sub></b>	24 V DC (16.8 V DC ... 30 V DC)
<b>Power consumption</b>	0.22 A <sup>1)</sup> 0.24 A <sup>2)</sup>

<sup>1)</sup> At 24 V DC without output load.

<sup>2)</sup> At 24 V DC including maximum output load.

#### Mechanics

<b>Dimensions (W x H x D)</b>	102 mm x 116 mm x 105 mm
<b>Weight</b>	0.8 kg, without connecting cables
<b>Housing material</b>	Aluminum die cast
<b>Housing color</b>	RAL 1021 (yellow), RAL 9005 (black)
<b>Optics cover material</b>	Polycarbonate

<b>Optics cover surface finish</b>	Outside with scratch-resistant coating
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## Ambient data

<b>Enclosure rating</b>	IP65 (EN 60529)
<b>Ambient operating temperature</b>	-10 °C ... +50 °C
<b>Storage temperature</b>	-25 °C ... +50 °C
<b>Vibration resistance</b>	IEC 60068-2-6, IEC 60068-2-64, IEC 60721-3-5, IEC TR 60721-4-5, IEC 61496-3
Class	5M1 (IEC 60721-3-5)
<b>Shock resistance</b>	IEC 60068-2-27, IEC 60721-3-5, IEC TR 60721-4-5, IEC 61496-3
Class	5M1 (IEC 60721-3-5)
Continuous shock	50 m/s <sup>2</sup> , 11 ms 100 m/s <sup>2</sup> , 16 ms

## Other information

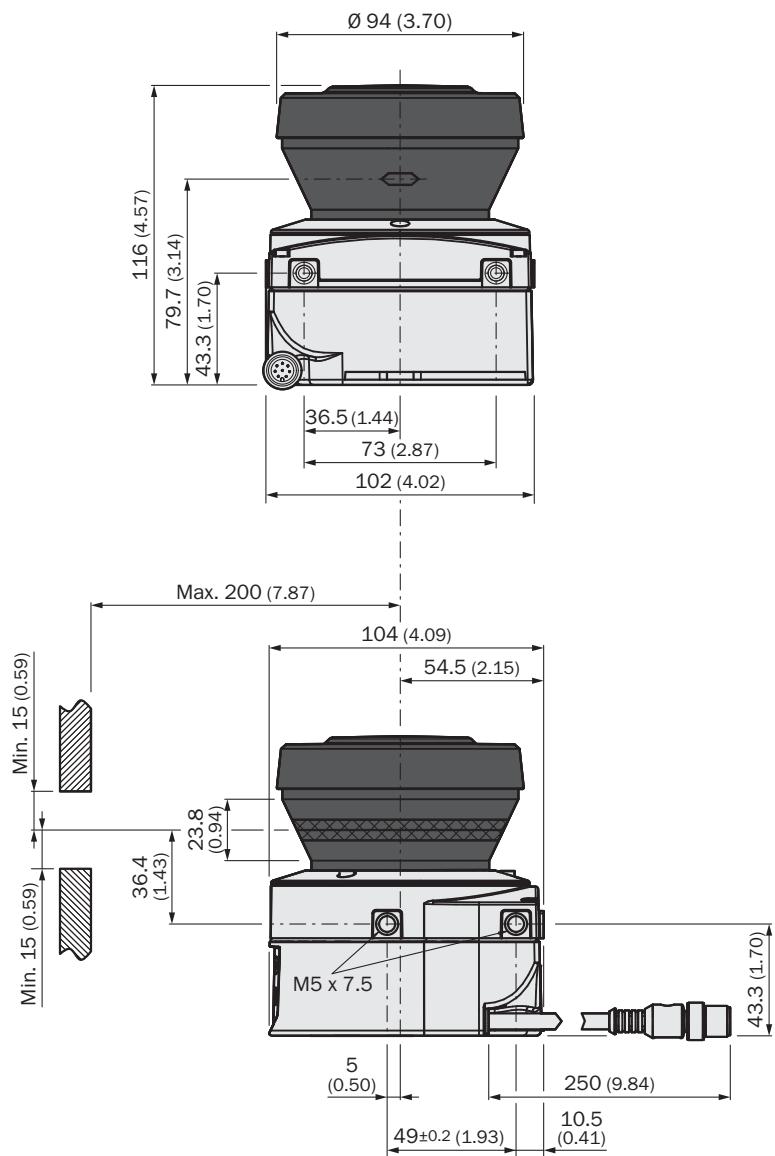
<b>Type of light</b>	Pulsed laser diode
<b>Wave length</b>	905 nm
<b>Detectable remission factor</b>	1.8 % ... > 1,000 %, reflectors
<b>Laser class</b>	1 (21 CFR 1040.10 and 1040.11, IEC 60825-1)

## Classifications

<b>ECLASS 5.0</b>	27272705
<b>ECLASS 5.1.4</b>	27272705
<b>ECLASS 6.0</b>	27272705
<b>ECLASS 6.2</b>	27272705
<b>ECLASS 7.0</b>	27272705
<b>ECLASS 8.0</b>	27272705
<b>ECLASS 8.1</b>	27272705
<b>ECLASS 9.0</b>	27272705
<b>ECLASS 10.0</b>	27272705
<b>ECLASS 11.0</b>	27272705
<b>ECLASS 12.0</b>	27272705
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002550
<b>ETIM 8.0</b>	EC002550
<b>UNSPSC 16.0901</b>	39121528

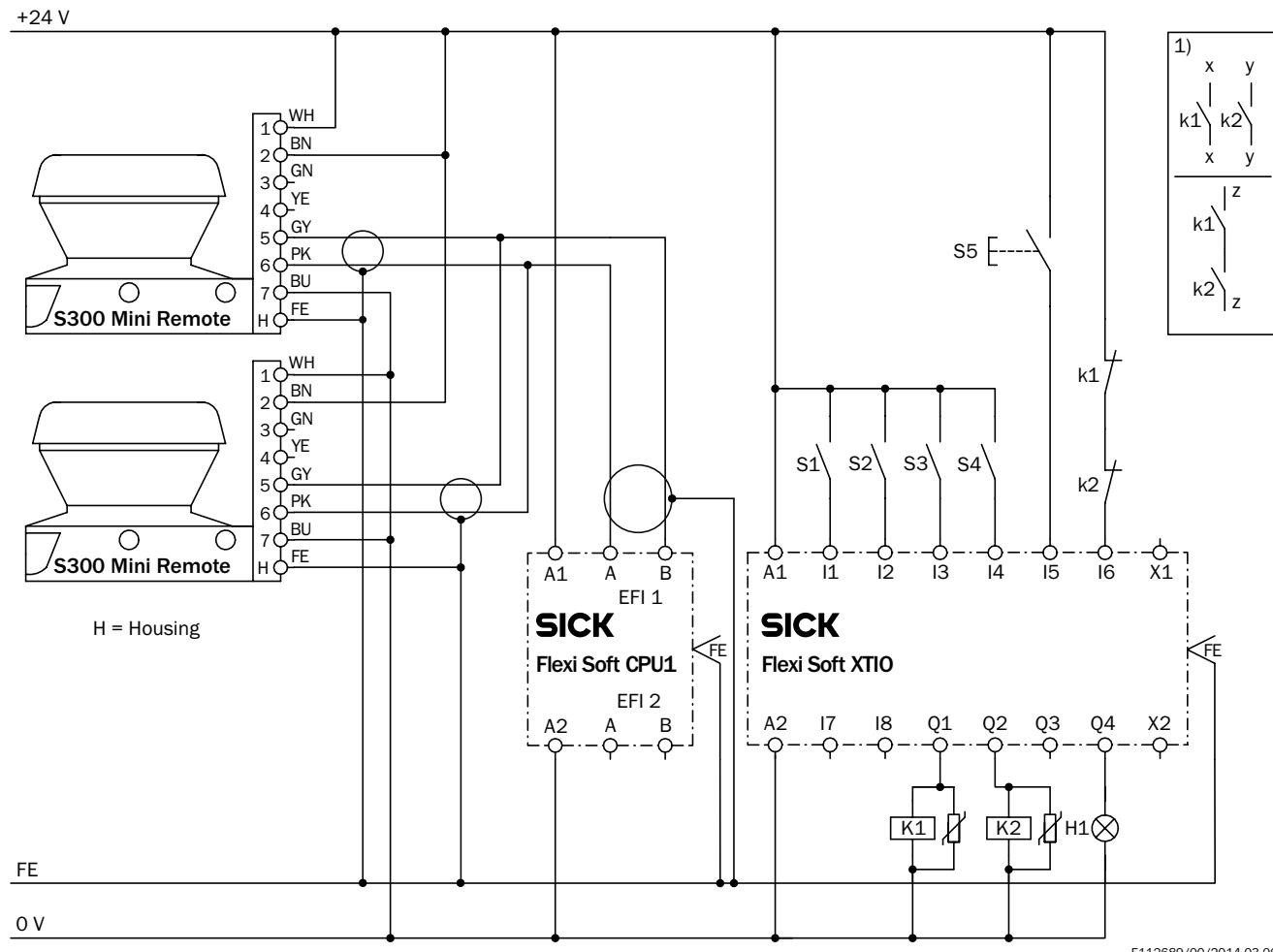
**Dimensional drawing** (Dimensions in mm (inch))

Laser scanner



## Connection diagram

S300 Mini Remote: Protective field switch with the help of a Flexi Soft safety controller



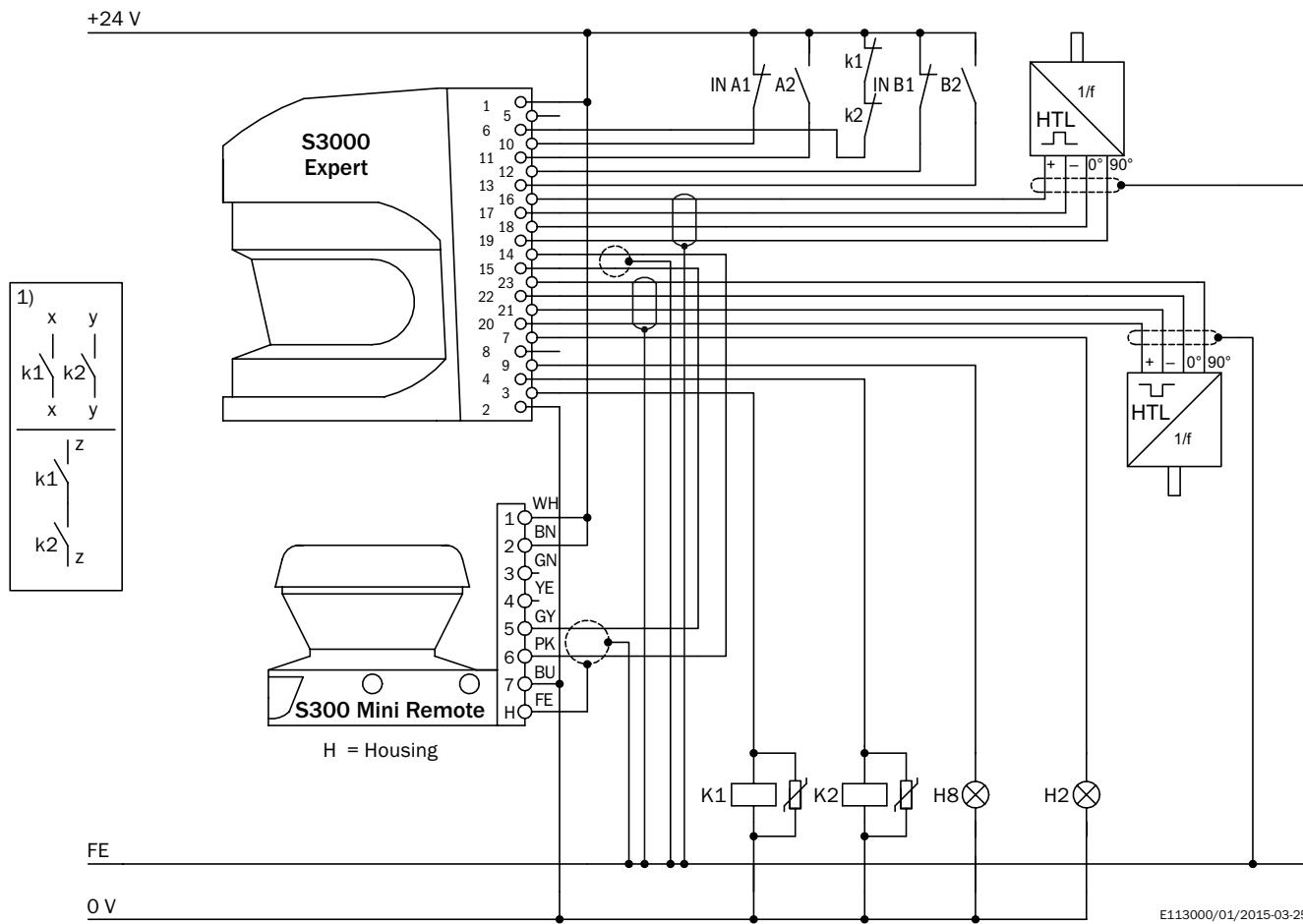
Two S300 Mini Remote

Protective field evaluation and switching via EFI using a Flexi Soft safety controller

**Comments**

<sup>1)</sup> Output circuits: These contacts are to be connected to the controller such that, with the output circuit open, the dangerous state is disabled. For categories 4 and 3, this integration must be dual-channel (x/y paths). Single-channel insertion in the control (z path) is only possible with a single-channel control and by taking the risk analysis into account.

Protective field switching between an S3000 Expert and an S300 Mini Remote with static and dynamic inputs



S3000 Expert with S300 Mini Remote in an EFI system with relays/contactors

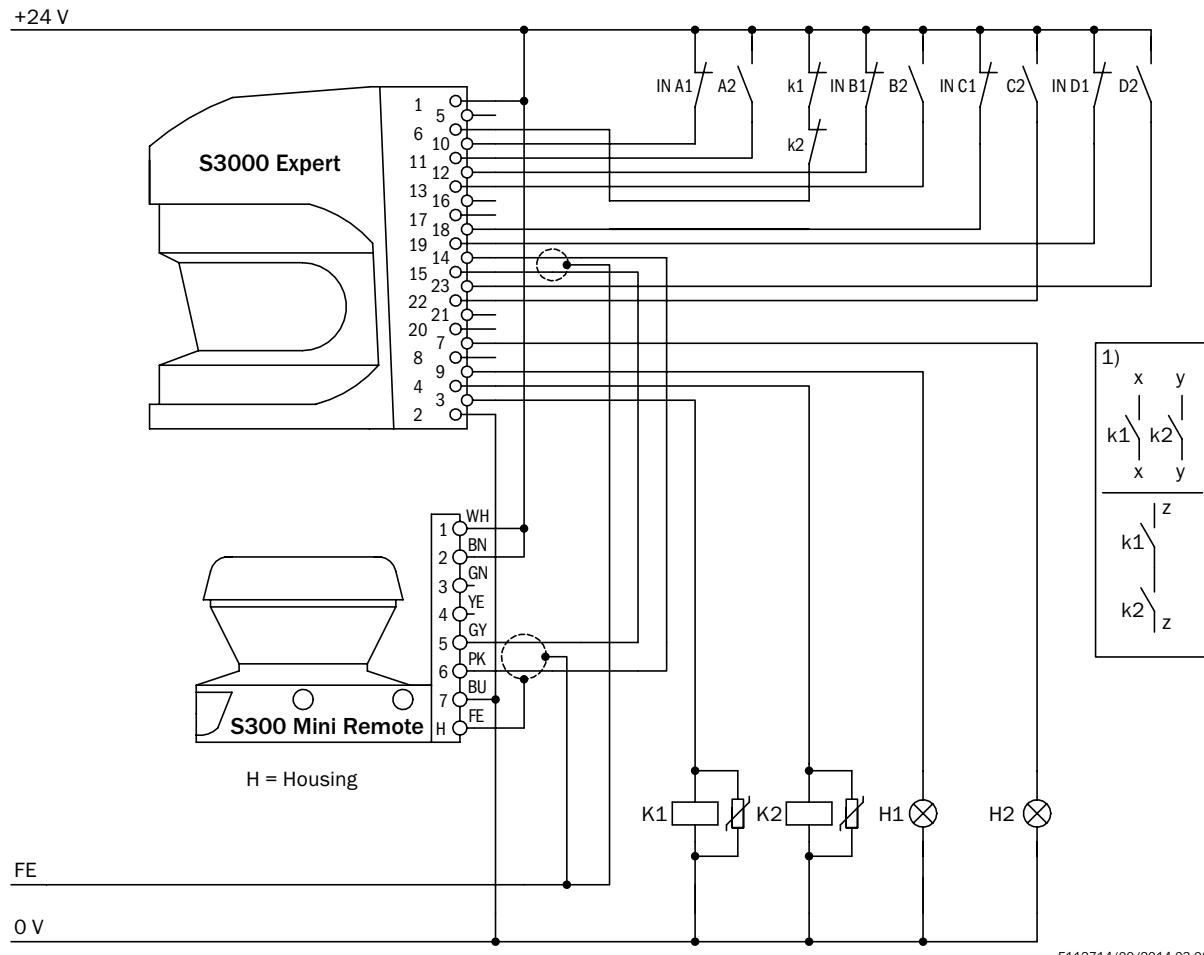
Operating mode: without restart interlock with external device monitoring

Direction of travel-dependent dynamic protective field switching using the incremental encoders C and D as well as static protective field switching using the control inputs A and B of the S3000. The protective fields affect the OSSDs on the S3000 Expert.

#### Comments

- 1) Output circuits: These contacts are to be connected to the controller such that, with the output circuit open, the dangerous state is disabled. For categories 4 and 3, this integration must be dual-channel (x/y paths). Single-channel insertion in the control (z path) is only possible with a single-channel control and by taking the risk analysis into account.

Protective field switching between an S3000 Expert and an S300 Mini Remote with static inputs



S3000 Expert with S300 Mini Remote in an EFI system with relays/contactors

Operating mode: without restart interlock, with external device monitoring

Static protective field switching by the S3000 control inputs IN A to D. The protective fields affect the OSSDs on the S3000 Expert.

#### Comments

<sup>1)</sup> Output circuits: These contacts are to be connected to the controller such that, with the output circuit open, the dangerous state is disabled. For categories 4 and 3, this integration must be dual-channel (x/y paths). Single-channel insertion in the control (z path) is only possible with a single-channel control and by taking the risk analysis into account.

#### Recommended accessories

Other models and accessories → [www.sick.com/S300\\_Mini](http://www.sick.com/S300_Mini)

	Brief description	Type	Part no.
Mounting brackets and plates			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for rear mounting on wall or machine</li> <li><b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 1a	2034324
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for rear mounting on wall or machine with protection of optics hood</li> <li><b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 1b	2034325

	Brief description	Type	Part no.
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket, adjustable lateral axis, only in conjunction with mounting kit 1a (2034324) or 1b (2034325)</li> <li><b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 2	2039302
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting plate, adjustable longitudinal axis, only in conjunction with mounting kit 2 (2039302)</li> <li><b>Packing unit:</b> 1 piece</li> </ul>	Mounting kit 3	2039303
Others			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M8, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, USB-A, straight</li> <li><b>Cable:</b> 2 m, 4-wire, PVC</li> <li><b>Description:</b> Unshielded, Configuration cable with integrated RS-232 transducer on USB for connecting a sensor configuration connection (M8, 4-pin) to the USB interface of a PC</li> </ul>	DSL-8U04G02M025KM1	6034574
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M8, 4-pin, straight</li> <li><b>Connection type head B:</b> Male connector, USB-A, straight</li> <li><b>Cable:</b> 10 m, 4-wire, PVC</li> <li><b>Description:</b> Unshielded, Configuration cable with integrated RS-232 transducer on USB for connecting a sensor configuration connection (M8, 4-pin) to the USB interface of a PC</li> </ul>	DSL-8U04G10M025KM1	6034575
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 7-pin, straight, SICK-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 10 m, 8-wire</li> <li><b>Description:</b> Shielded</li> <li><b>Note:</b> Extension cable S300 Mini Remote</li> </ul>	DOL-1SS2G10ME15KM3	6042340
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 7-pin, straight, SICK-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 15 m, 8-wire</li> <li><b>Description:</b> Shielded</li> <li><b>Note:</b> Extension cable S300 Mini Remote</li> </ul>	DOL-1SS2G15ME15KM3	6042341
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 7-pin, straight, SICK-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 2.5 m, 8-wire</li> <li><b>Description:</b> Shielded</li> <li><b>Note:</b> Extension cable S300 Mini Remote</li> </ul>	DOL-1SS2G2M5E15KM3	6042337
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 7-pin, straight, SICK-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 20 m, 8-wire</li> <li><b>Description:</b> Shielded</li> <li><b>Note:</b> Extension cable S300 Mini Remote</li> </ul>	DOL-1SS2G20ME15KM3	6042342
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 7-pin, straight, SICK-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 5 m, 8-wire</li> <li><b>Description:</b> Shielded</li> <li><b>Note:</b> Extension cable S300 Mini Remote</li> </ul>	DOL-1SS2G5M0E15KM3	6042338
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 7-pin, straight, SICK-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 7.5 m, 8-wire</li> <li><b>Description:</b> Shielded</li> <li><b>Note:</b> Extension cable S300 Mini Remote</li> </ul>	DOL-1SS2G7M5E15KM3	6042339

## 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)