



ISD300-1112

ISD300

OPTICAL DATA TRANSMISSION

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|-------------|----------|
| ISD300-1112 | 6024837 |

Data transmission requires two devices. The second device must be ordered separately.

Other models and accessories → www.sick.com/ISD300

Detailed technical data

Mechanics/electronics

| | |
|--|------------------|
| Supply voltage V_s | DC 18 V ... 30 V |
| Connection type | Terminals |
| Current consumption | ≤ 0.2 A |
| Frequency | F2 ¹⁾ |
| Enclosure rating | IP65 |
| Protection class | I |

¹⁾ A pair of devices with numbers ending in 1 and 2 are required to create a data transfer section.

Performance

| | |
|--|------------------------|
| Transmission range | 0.2 m ... 120 m |
| Light source | LED, infrared (880 nm) |
| Typ. light spot size (distance) | 1.75 m (at 100 m) |
| Aperture angle | Ca. ± 0.5° |

Interfaces

| | |
|------------------------|---------------------------------|
| PROFIBUS DP | ✓ |
| Data transmission rate | 1.5 Mbit/s |
| Serial | ✓, RS-485 |
| Remark | On request |
| Data transmission rate | 1.5 Mbit/s |
| Digital input | 0 V ... 2 V: sender deactivated |
| Digital output | |
| Number | 1 ¹⁾ ²⁾ |
| Signal delay | ≤ 1.5 μs, + 1 Tbit |

¹⁾ 0 V ... 2 V: interference-free operation.

²⁾ $V_S - 2V$: reduced system reserve.

Ambient data

| | |
|--|--|
| Electromagnetic compatibility (EMC) | EN 61000-6-2 ¹⁾ EN 61000-6-4 |
| Ambient temperature, operation | -5 °C ... +50 °C |
| Ambient temperature, storage | -30 °C ... +70 °C |
| Max. rel. humidity (not condensing) | 90 %, Non-condensing |

¹⁾ This is a Class A device. This device can cause radio interference in living quarters.

General notes

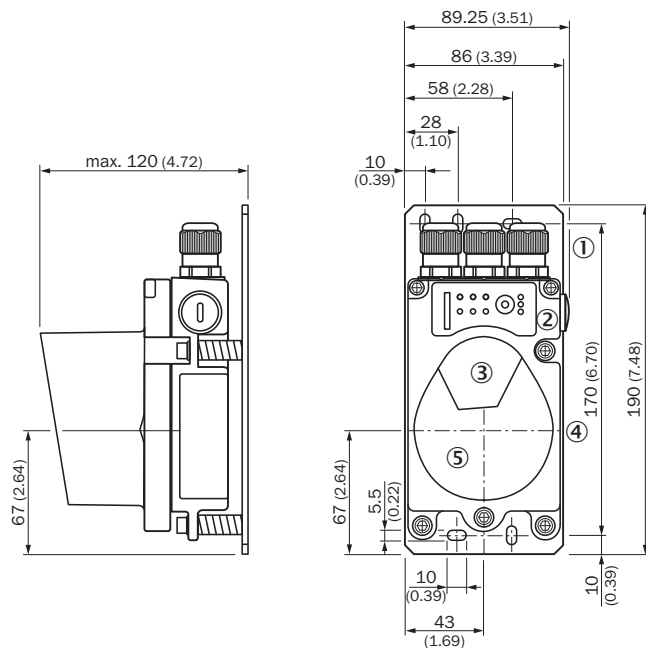
| | |
|-------------|--|
| Note | 2 devices are required to construct a data transmission path: ISD300-xxx1 (frequency 1) and ISD300-xxx2 (frequency 2). The two devices must be ordered separately. |
|-------------|--|

Classifications

| | |
|-----------------------|----------|
| eCl@ss 5.0 | 19039001 |
| eCl@ss 5.1.4 | 19039001 |
| eCl@ss 6.0 | 19179090 |
| eCl@ss 6.2 | 19179090 |
| eCl@ss 7.0 | 19179090 |
| eCl@ss 8.0 | 19179090 |
| eCl@ss 8.1 | 19179090 |
| eCl@ss 9.0 | 19179090 |
| eCl@ss 10.0 | 19179090 |
| eCl@ss 11.0 | 19170500 |
| eCl@ss 12.0 | 19170500 |
| ETIM 5.0 | EC000515 |
| ETIM 6.0 | EC000515 |
| ETIM 7.0 | EC000515 |
| ETIM 8.0 | EC000515 |
| UNSPSC 16.0901 | 43201404 |

Dimensional drawing (Dimensions in mm (inch))

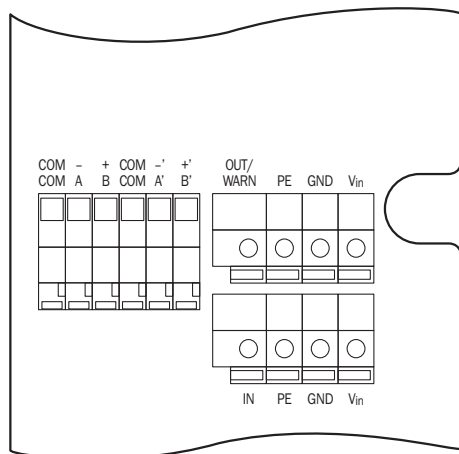
ISD300 RS-485/PROFIBUS, ISD300 RS-422/Interbus, ISD300 DH+/RIO, ISD300 DeviceNet/CANopen



- ① M16 gland
- ② Control panel
- ③ Sender lens
- ④ Center of optical axis
- ⑤ Receiver lens

Connection type

ISD300 RS-485/PROFIBUS

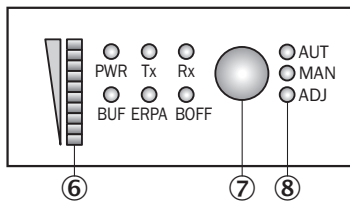


Connection diagram

| Terminals, general | | Terminals, PROFIBUS | |
|-----------------------|---------------|---------------------|--------------|
| V_{in} | L+ | A, - | A wire |
| GND | M | B, + | B wire |
| PE | Shield | COM | Pot. balance |
| OUT/WARN | Q | A', -' | A wire |
| IN | Switch. input | B', +' | B wire |

Adjustment possible

ISD300 RS-485/PROFIBUS, ISD300 RS-422/Interbus, ISD300 DH+/RIO, ISD300 DeviceNet/CANopen





- ⑥ Display for signal level
- ⑦ Operating mode selector switch
- ⑧ LED operating indicator

Recommended accessories

Other models and accessories → www.sick.com/ISD300

| | Brief description | Type | Part no. |
|-----------------------------------|---|----------------|----------|
| Plug connectors and cables | | | |
| | Head A: Flying leads Head B: Flying leads Cable: PROFIBUS DP, PUR, shielded | LTG-2102-MW | 6021355 |
| | Head A: Flying leads Head B: Flying leads Cable: CANopen, DeviceNet™, shielded Wire shield Al-Pt film, overall shield C-screen tin-plated | LTG-2804-MW | 6028328 |
| | Head A: male connector, M12, 5-pin, straight, B-coded Head B: Flying leads Cable: PROFIBUS DP, twisted pair, PUR, halogen-free, shielded, 5 m Wire shield Al-Pt film, overall shield C-screen tin-plated | STL-1205-G05MQ | 6026005 |
| | Head A: female connector, M12, 5-pin, straight Cable: CANopen, DeviceNet™, shielded | DOS-1205-GA | 6027534 |
| | Head A: female connector, M12, 5-pin, straight, B-coded Cable: PROFIBUS DP, shielded | DOS-1205-GQ | 6021353 |

| | Brief description | Type | Part no. |
|---|---|-------------|----------|
|  | Head A: male connector, M12, 5-pin, straight, A-coded Cable: CANopen, DeviceNet™, shielded | STE-1205-GA | 6027533 |
|  | Head A: male connector, M12, 5-pin, straight, B-coded Cable: PROFIBUS DP, shielded | STE-1205-GQ | 6021354 |

Recommended services

Additional services → www.sick.com/ISD300

| | Type | Part no. |
|--|--|----------|
| Extended warranty | | |
| <ul style="list-style-type: none"> • Product area: Identification solutions, machine vision, Distance sensors, Detection and ranging solutions • Range of services: The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery). • Duration: Five-year warranty from delivery date. | Extended warranty for a total of five years from delivery date | 1680671 |

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