



ISD300-1212

ISD300

OPTICAL DATA TRANSMISSION

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
ISD300-1212	6024760

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

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

Detailed technical data

Technical specifications

Accessory group	Optical data transmission
Accessory family	ISD300
Housing material	Metal
Enclosure rating	IP65
Ambient operating temperature	-5 °C ... +50 °C
Storage temperature	-30 °C ... +70 °C
Permissible relative humidity	90 %, Non-condensing

Mechanics/electronics

Frequency	F2 ¹⁾
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
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
Data transmission rate	1.5 Mbit/s
Digital input	0 V ... 2 V: sender deactivated
Digital output	
Number	1 ^{1) 2)}

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

²⁾ V_S -2 V: reduced system reserve.

Signal delay	≤ 1.5 μs, + 1 Tbit
---------------------	--------------------

- 1) 0 V ... 2 V: interference-free operation.
- 2) V_S -2 V: reduced system reserve.

Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2, 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

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.
-------------	--

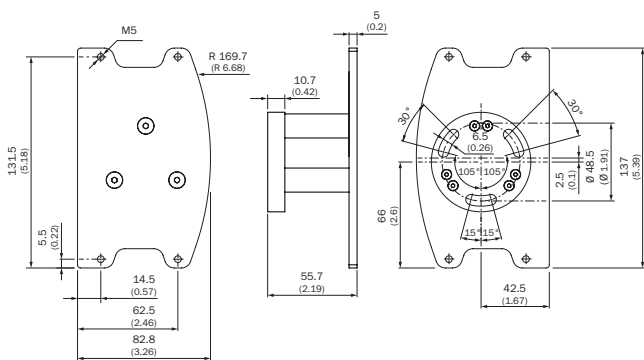
Classifications

ECLASS 5.0	19039001
ECLASS 5.1.4	19039001
ECLASS 6.0	19179090
ECLASS 6.2	19179090
ECLASS 7.0	19179090
ECLASS 8.0	19179090
ECLASS 8.1	19179090
ECLASS 9.0	19179090
ETIM 5.0	EC000515
ETIM 6.0	EC000515
UNSPSC 16.0901	43201404

Features

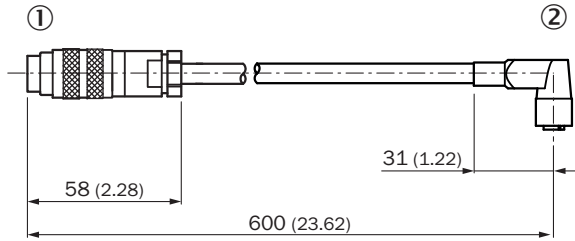
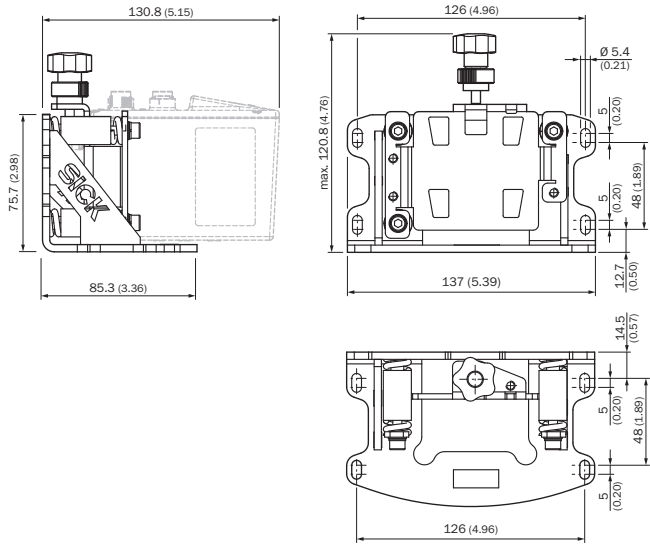
Housing material	Metal
Enclosure rating	IP65
Ambient operating temperature	-5 °C +50 °C
Storage temperature	-30 °C +70 °C
Permissible relative humidity	90 % Non-condensing

Dimensional drawing (Dimensions in mm (inch))



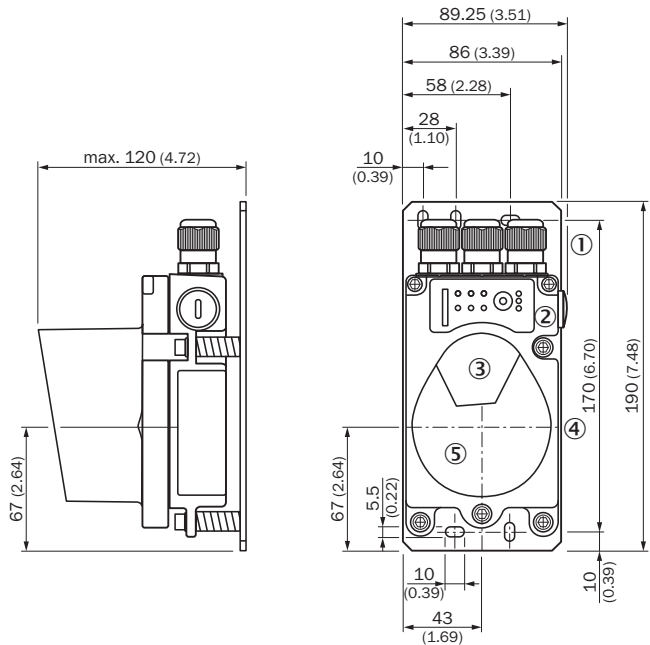
ISD300-1212 | ISD300

OPTICAL DATA TRANSMISSION



- ① Connector M16, 8-pin
- ② Male connector M12, 8-pin

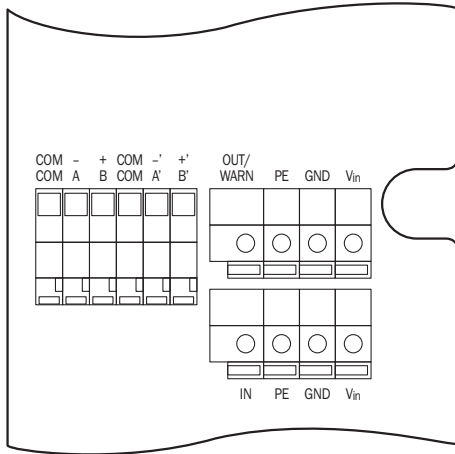
ISD300 RS-485/PROFIBUS, ISD300 RS-422/Interbus, ISD300 DH+/RIO, ISD300 DeviceNet/CANopen



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

Connection type

ISD300 RS-485/PROFIBUS



Anschlusschema

Terminals, general

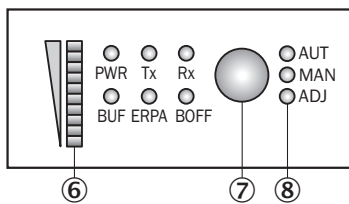
V_{in}	L+
GND	M
PE	Shield
OUT/WARN	Q
IN	Switch. input

Terminals, PROFIBUS

A, -	A wire
B, +	B wire
COM	Pot. balance
A', -'	A wire
B', +'	B wire

Adjustments

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.
Others			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, X-coded • Signal type: CANopen, DeviceNet™ • Description: CANopen, DeviceNet™, shielded, Head A: female connector, M12, 5-pin, straight, shielded, for cable diameter 4.5 mm ... 7 mm Head B: - • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	DOS-1205-GA	6027534
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 5-pin, straight, A-coded • Signal type: CANopen, DeviceNet™ • Description: CANopen, DeviceNet™, shielded, Head A: male connector, M12, 5-pin, straight, A coded, shielded, for cable diameter 4 mm ... 8 mm Head B: - • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	STE-1205-GA	6027533
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, B-coded • Signal type: PROFIBUS DP • Description: PROFIBUS DP, shielded, Head A: M12 female connector, 5-pin, straight, B-coded, PROFIBUS DP, shielded, for cable diameter 4 mm ... 9 mm Head B: - • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	DOS-1205-GQ	6021353
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 5-pin, straight, B-coded • Signal type: PROFIBUS DP • Description: PROFIBUS DP, shielded, Head A: male connector, M12, 5-pin, straight, B coded, shielded, for cable diameter 4 mm ... 9 mm Head B: - • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	STE-1205-GQ	6021354
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 5-pin, straight, B-coded • Connection type head B: Flying leads • Signal type: PROFIBUS DP • Cable: 5 m, 2-wire, PUR, halogen-free • Description: PROFIBUS DP, twisted pair, shielded • Note: Wire shield Al-Pt film, overall shield C-screen tin-plated • Application: Zones with oils and lubricants, Drag chain operation 	STL-1205-G05MQ	6026005
	<ul style="list-style-type: none"> • Connection type head A: Flying leads • Connection type head B: Flying leads • Signal type: PROFIBUS DP • Items supplied: By the meter • Cable: 2-wire, PUR • Description: PROFIBUS DP, shielded 	LTG-2102-MW	6021355
	<ul style="list-style-type: none"> • Connection type head A: Flying leads • Connection type head B: Flying leads • Signal type: CANopen, DeviceNet™ • Items supplied: By the meter • Cable: 4-wire, twisted pair • Description: CANopen, DeviceNet™, shielded • Note: Wire shield Al-Pt film, overall shield C-screen tin-plated 	LTG-2804-MW	6028328

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