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Product data sheet



ISD300-1211

ISD300

OPTICAL DATA TRANSMISSION

SICK
Sensor Intelligence.

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ISD300-1211 | ISD300

OPTICAL DATA TRANSMISSION



Illustration may differ

Ordering information

Type	Part no.
ISD300-1211	6024759

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	F1 [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 ... 200 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 –2 V: reduced system reserve.

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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.

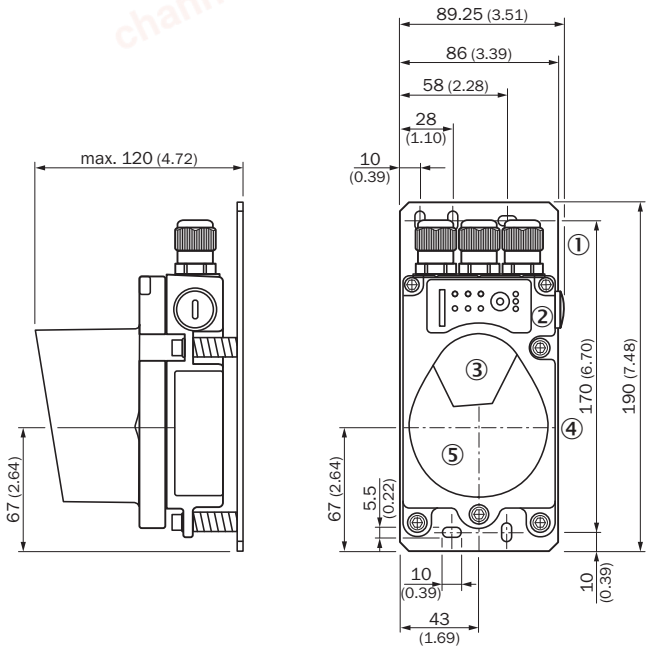
Classifications

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
ECLASS 10.0	19179090
ECLASS 11.0	19170500
ECLASS 12.0	19170500
ETIM 5.0	EC000515
ETIM 6.0	EC000515
ETIM 7.0	EC000515
ETIM 8.0	EC000515
UNSPSC 16.0901	43201404

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Dimensional drawing (Dimensions in mm (inch))

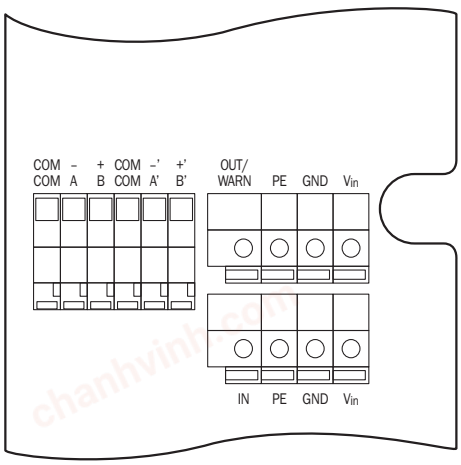
ISD300 RS-485/PROFIBUS, ISD300 RS-422/Interbus, ISD300 DH+/RIO, ISD300 DeviceNet/CANopen



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

Connection type

ISD300 RS-485/PROFIBUS



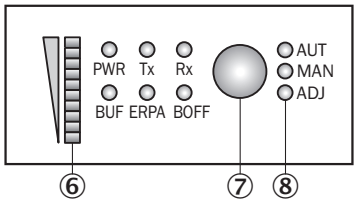
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Connection diagram

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			
	• **Connection type head A:** Flying leads • **Connection type head B:** Flying leads • **Signal type:** PROFIBUS DP • **Cable:** 2-wire, PUR • **Description:** PROFIBUS DP, shielded • **Items supplied:** By the meter	LTG-2102-MW	6021355
	• **Connection type head A:** Flying leads • **Connection type head B:** Flying leads • **Signal type:** CANopen, DeviceNet™ • **Cable:** 4-wire, twisted pair • **Description:** CANopen, DeviceNet™, shielded • **Note:** Wire shield Al-Pt film, overall shield C-screen tin-plated • **Items supplied:** By the meter	LTG-2804-MW	6028328
	• **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

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OPTICAL DATA TRANSMISSION

	Brief description	Type	Part no.
	• **Connection type head A:** Female connector, M12, 5-pin, straight • **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
	• **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
	• **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
	• **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

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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.”

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