SICK.COM



DATA SHEET

ISD300-1112

ISD300
Optical data transmission

SICK Sensor Intelligence



Illustration may differ

OPTICAL DATA TRANSMISSION

ISD300-1112

ORDERING INFORMATION

Type	part no.
ISD300-1112	6024837

Further device versions and accessories at www.sick.com/ISD300

DETAILED TECHNICAL DATA

FEATURES

Product segment	Optical data transmission
Product	ISD300
Housing material	Metal
Enclosure rating	IP65
Power consumption	≤ 0.2 A
Ambient operating temperature	–5 °C ... +50 °C
Storage temperature	–30 °C ... +70 °C
Relative humidity	90 %, Non-condensing

MECHANICS/ELECTRONICS

Supply voltage V_s	DC 18 V ... 30 V
Transmission range	0.2 m 120 m
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	✓, RS-485
Data transmission rate	1.5 Mbit/s
Serial	✓
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.

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

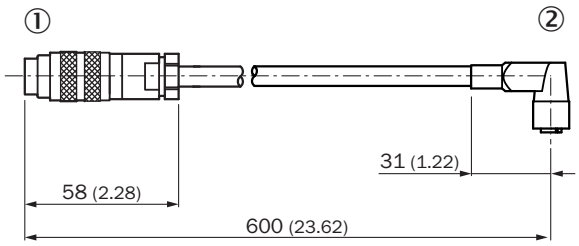
GENERAL NOTES

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.

CERTIFICATES

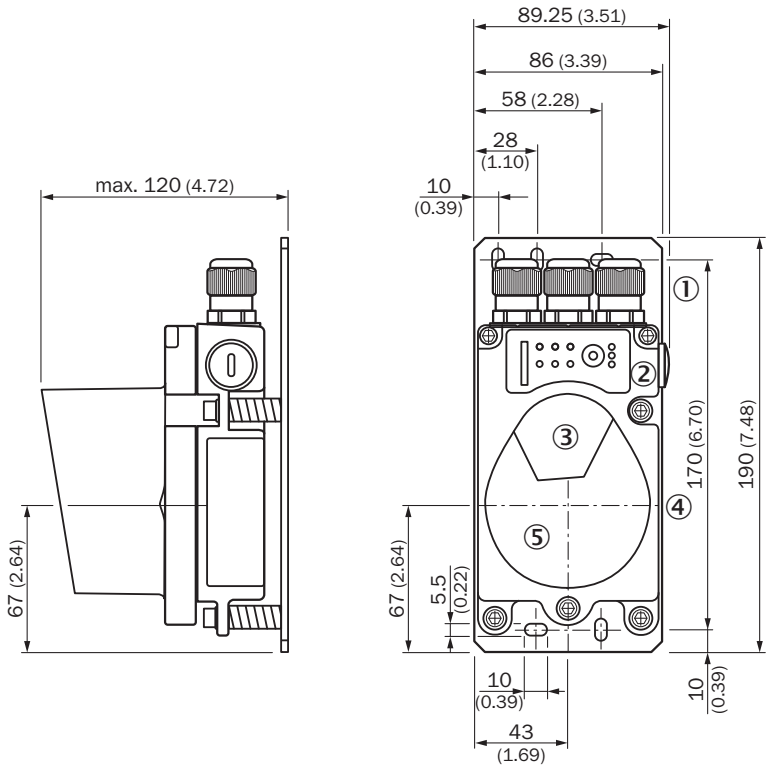
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

DIMENSIONAL DRAWING: DSC-1608-1208



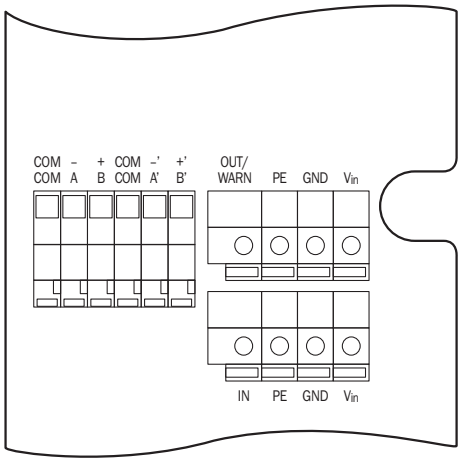
Dimensions in mm (inch)
① Connector M16, 8-pin
② male connector M12, 8-pin

DIMENSIONAL DRAWING ISD300 RS-485/PROFIBUS, ISD300 RS-422/INTERBUS, ISD300 DH+/RIO, ISD300 DEVICENET/CANOPEN



Dimensions in mm (inch)
① M16 gland
② Control panel
③ Sender lens
④ Center of optical axis
⑤ Receiver lens

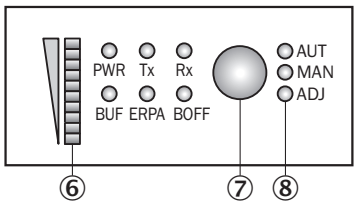
CONNECTION TYPE ISD300 RS-485/PROFIBUS



ANSCHLUSSSCHEMA

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

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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6024837

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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