

SICK MLG05W-0300B12501 MLG-2 WebChecker



SICK MLG05W-0300B12501 MLG-2 WebChecker User Manual

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SICK MLG05W-0300B12501 MLG-2 WebChecker



Specifications

Product: MLG05W-0300B12501 | MLG-2
WebChecker

Measuring Automation Light Grids

Part Number: 1222734

Device Version: Web guiding

Sensor Principle: Sender/receiver

Minimum Object Length: 4 mm

Beam Separation: 5 mm

Resolution: 0.1 mm

Total Measuring Field Width: 445 mm

Number of Beams: 90

Supply Voltage: DC 19.2 V ... 28.8 V

Power Consumption (Sender): 59.5 mA

Power Consumption (Receiver): 138 mA

Maximum Range: 3.5 m

Minimum Range: 0.2 m

Operating Range: 0.2 m – 2.5 m

Response Time: 19 ms

Communication Interface: IO-Link V1.1

Data Transmission Rate: 230,4 kbit/s (COM3)

Cycle Time: 14 ms

Product Usage Instructions

Installation

1. Ensure the device is placed securely on a stable surface.
2. Connect the device to a power source within the specified voltage range.
3. Align the sender and receiver components properly for accurate measurement.

Configuration

1. Access the software features using the default settings provided.
2. Adjust the edge positions and application modes as needed for your specific requirements.

Maintenance

1. Regularly clean the front screen of the device to ensure optimal performance.
2. Check for any loose connections or damage to cables and connectors.

FAQ

- **Q: Can the device be used outdoors?**
 - **A:** Operating in outdoor conditions is only possible with an external protection housing.
- **Q: What is the cycle time of the device?**
 - **A:** The cycle time is 14 ms.
- **Q: How many beams are there in the measuring field?**
 - **A:** There are a total of 90 beams in the measuring field.

MEASURING AUTOMATION LIGHT GRIDS

Ordering information



Type	Part no.
MLG05W-0300B12501	1222734



IO-Link



[Other models and accessories → www.sick.com/MLG-2_WebChecker](http://www.sick.com/MLG-2_WebChecker)

Detailed technical data

Features

Device version	Web guiding
Sensor principle	Sender/receiver
Minimum object length	4 mm ¹⁾
Beam separation	5 mm
Resolution	0.1 mm
Cycle time	32 µs per beam
Repeatability	6 µm ²⁾
Accuracy	± 0.3 mm ³⁾
Type of synchronization	Cable
Number of beams	90
Total measuring field width	445 mm
Measuring field width detailed	
Measuring field width (connection side)	445 mm
Blind zone (medium range)	0 mm
Measuring field width (head side)	0 mm
Software features (default)	
Q ₁ /C	Alarm, general
Q ₂	Standard teach-in
Q _{A1}	Edge position 1, rising

1. See graphic: product definition.
2. 1 sigma, 0% object transmission (sensor internal value).
3. For opaque objects and exact alignment of sender/receiver.

	Q _{A2}	Edge position 10, rising
	Application	Standard mode
Included with delivery		1 × sender 1 × receiver 4/6 × QuickFix brackets (6 × QuickFix brackets for monitoring heights above 2 m) 1 × Quick Start Guide

1. **See graphic:** product definition.
2. sigma, 0% object transmission (sensor internal value).
3. For opaque objects and exact alignment of sender/receiver

Mechanics/electronics

Light source	LED, Infrared light
Wave length	850 nm
Supply voltage V_s	DC 19.2 V ... 28.8 V ¹⁾
Power consumption sender	59.5 mA ²⁾
Power consumption receiver	138 mA ²⁾
Ripple	< 5 V _{pp}
Output current I_{max}	100 mA
Output load, capacitive	100 nF
Output load, Inductive	1 H
Initialization time	< 1 s
Switching output	Push-pull: PNP/NPN
Dimensions (W x H x D)	34 mm x 529.4 mm x 30.6 mm
Connection type	Male connector M12, 5-pin, 0.22 m Male connector M12, 8-pin, 0.27 m M12 female connector, 4-pin, D-coded, 0.19 m
Housing material	Aluminum
Indication	LED
Enclosure rating	IP65, IP67 ³⁾
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	1.159 kg
Front screen	PMMA
Option	None
UL File No.	NRKH.E181493

1. Without load.
2. , Without load with 24 V.
3. Operating in outdoor conditions only with an external protection housing.

Performance

Maximum range	3.5 m ¹⁾
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1. No reserve for environmental issue and deterioration of the diode.
2. With resistive load.

MEASURING AUTOMATION LIGHT GRIDS

Minimum range	≥ 0.2 m
Operating range	2.5 m
Response time	19 ms ²⁾

1. No reserve for environmental issue and deterioration of the diode.
2. With resistive load.

Communication interface

IO-Link		✓, IO-Link V1.1
	Data transmission rate	230,4 kbit/s (COM3)
	Maximum cable length	20 m
	Cycle time	14 ms
	VendorID	26
	DeviceID HEX	80022F
	DeviceID DEC	8389167
	Process data length	32 Byte (TYPE_2_V) ¹⁾
Analog		✓, Current
Inputs/outputs		2 x analog + 2 x Q (IO-Link)
Analog output (current)		4 mA ... 20 mA
Analog output		Q _{A1} , Q _{A2}
	Number	2
	Type	Current output
	Current	4 mA ... 20 mA
Digital output		Q ₁ , Q ₂
	Number	2
Digital input		Q ₂
	Number	1

1. With an IO-Link master with V1.0, fall back to interleaved mode (consisting of TYPE_1_1 (ProcessData) and TYPE_1_2 (On-request Data)).

Ambient data

Shock resistance	Continuous shocks 10 g, 16 ms, 1000 shocks Single shocks 15 g, 11 ms 3 per axle
Vibration resistance	Sinusoidal oscillation 10-150 Hz 5 g
EMC	EN 60947-5-2
Ambient light immunity	100,000 lx
Ambient operating temperature	-30 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C

Smart Task

Smart Task name	Base logics
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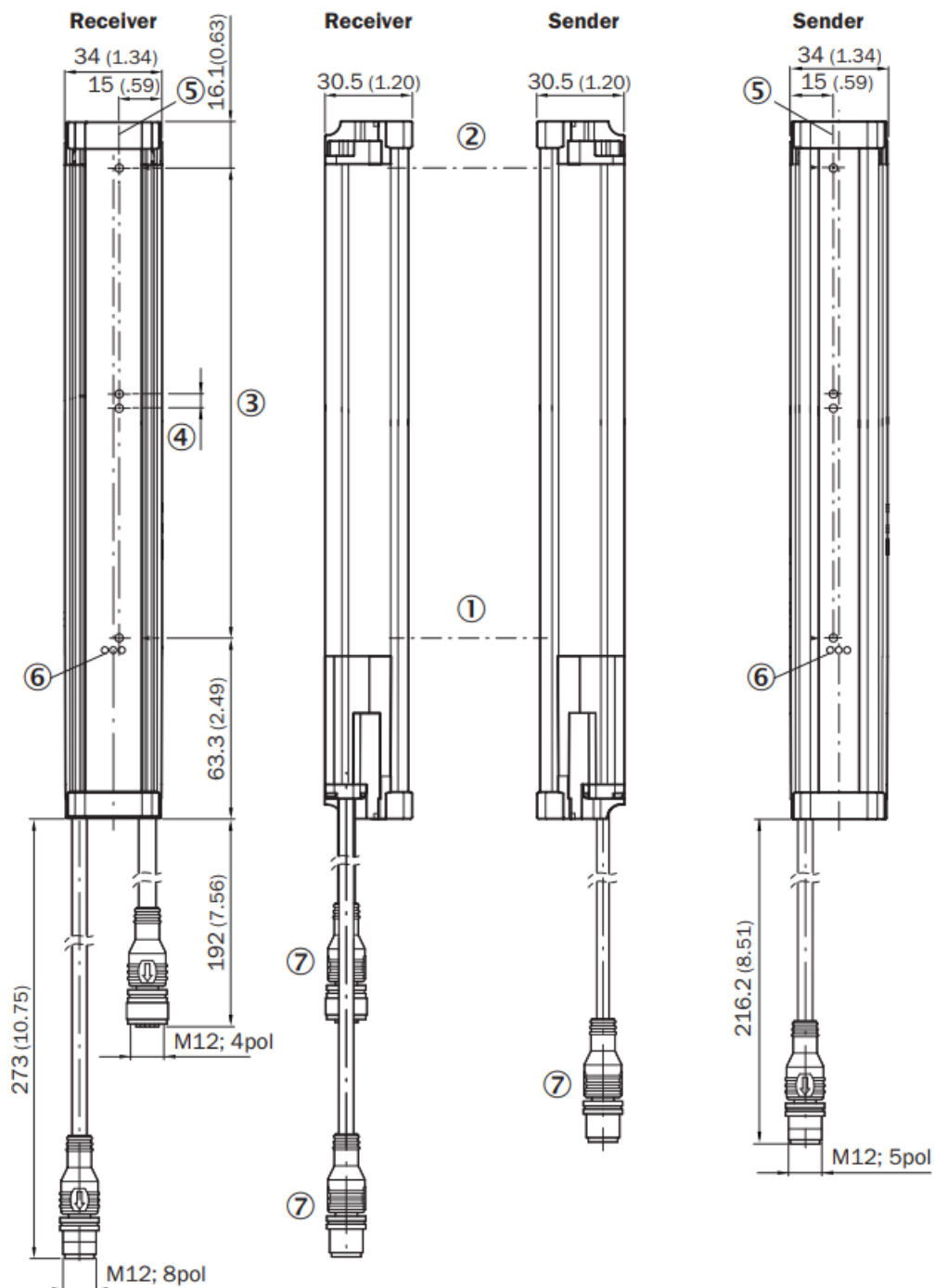
Classifications

ECLASS 5.0	27270910
ECLASS 5.1.4	27270910
ECLASS 6.0	27270910
ECLASS 6.2	27270910

ECLASS 7.0	27270910
ECLASS 8.0	27270910
ECLASS 8.1	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

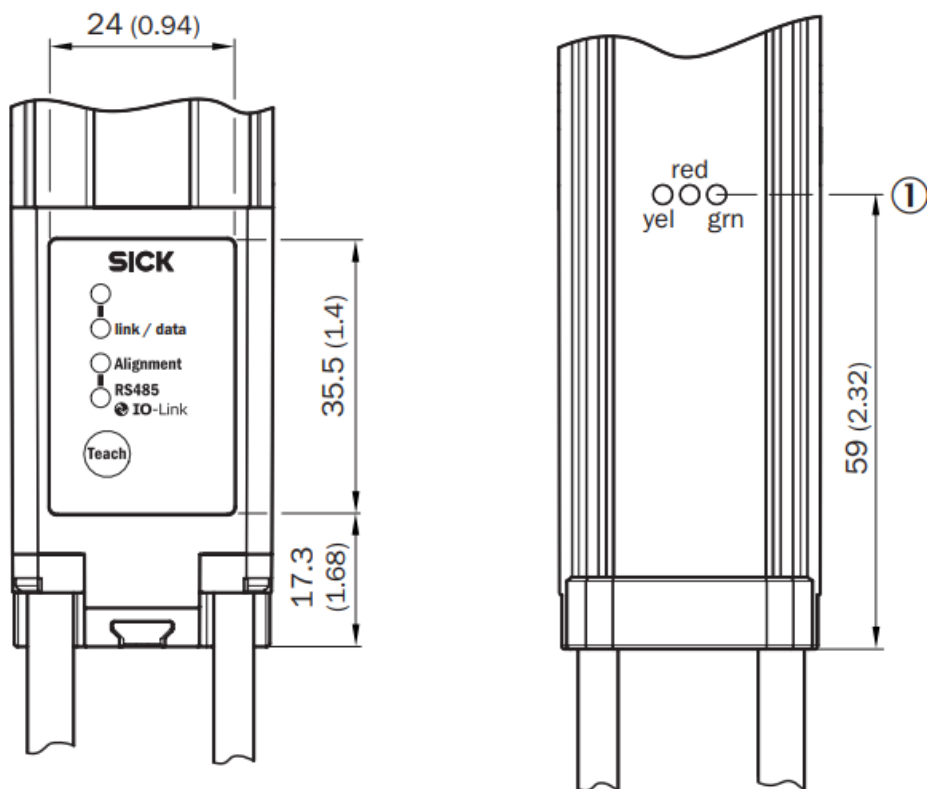
Dimensional drawing (Dimensions in mm (inch))

Dimensional drawing



1. First beam
2. Last beam
3. Total measuring field width (see technical data)
4. Beam separation
5. Optical axis
6. Status indicator: green, yellow, red LEDs
7. Connection

Adjustments

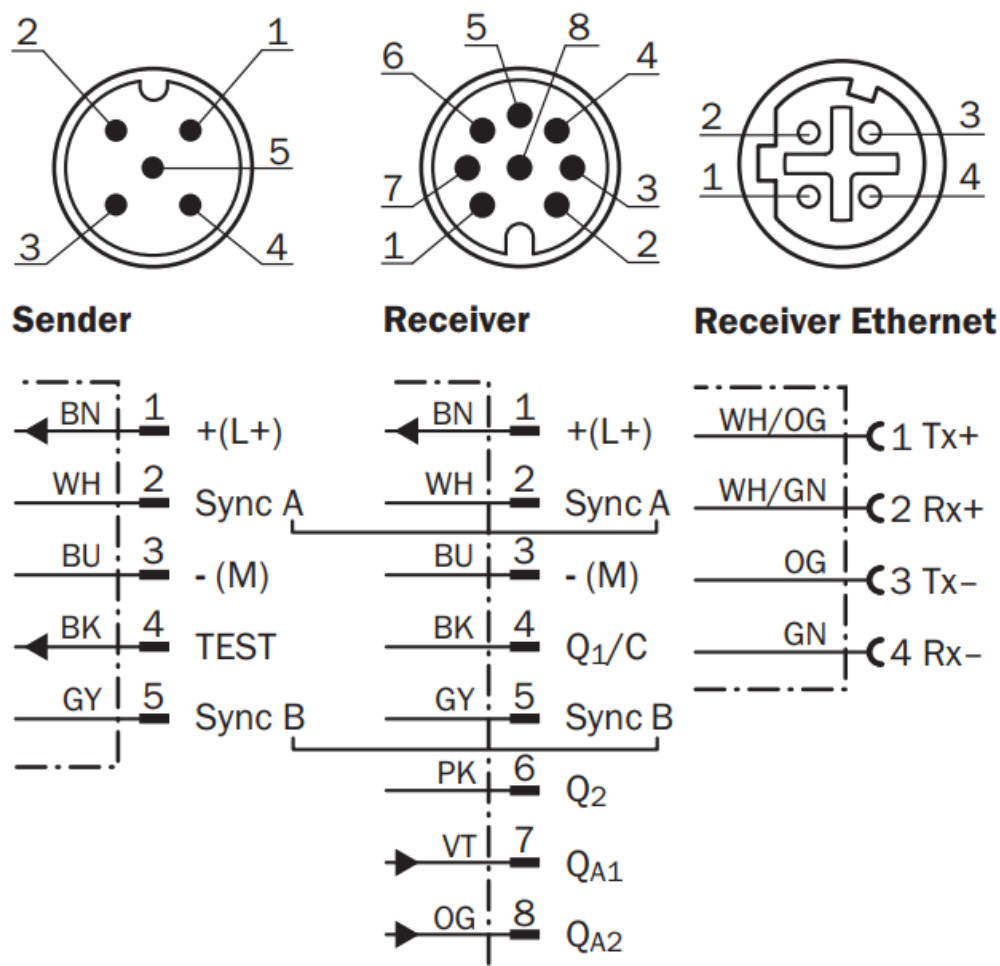


① Status indicator: green, yellow, red LEDs

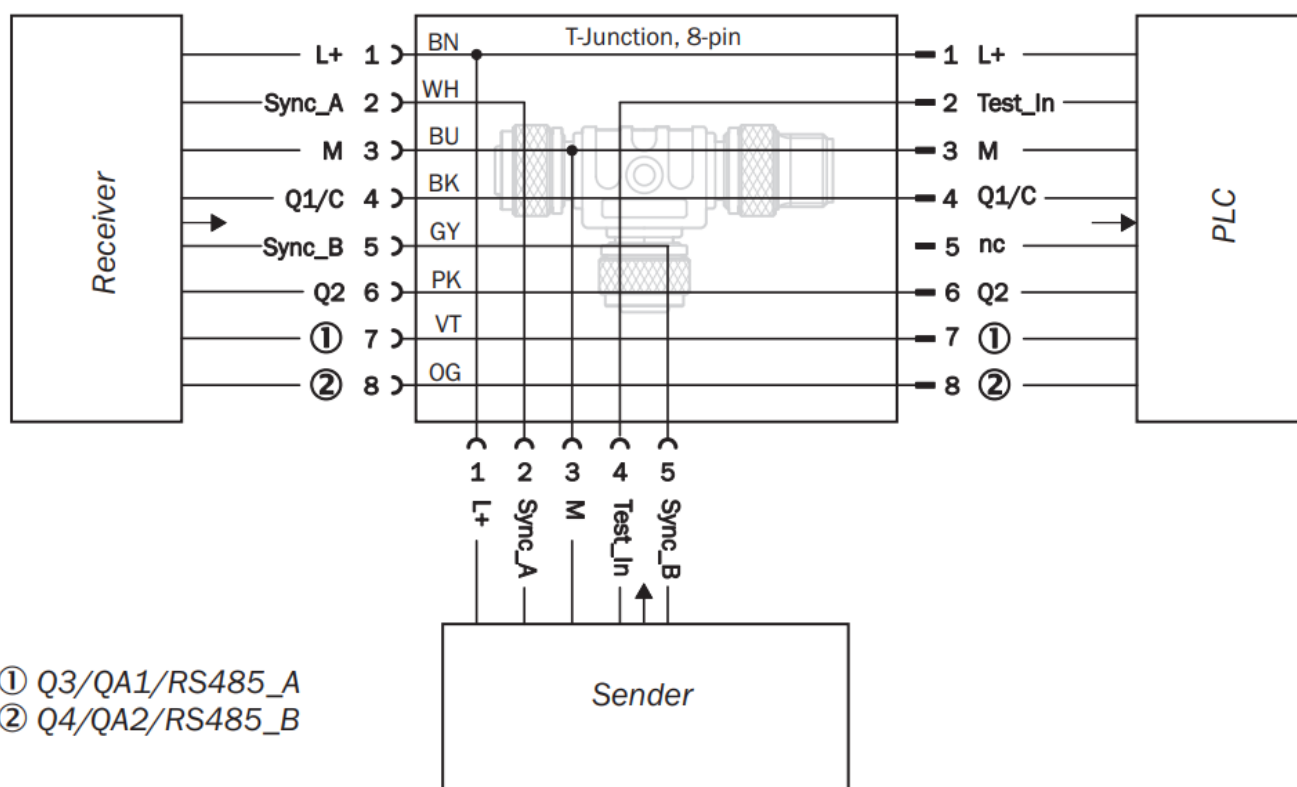
1. **Status indicator:** green, yellow, red LEDs

Connection type and diagram

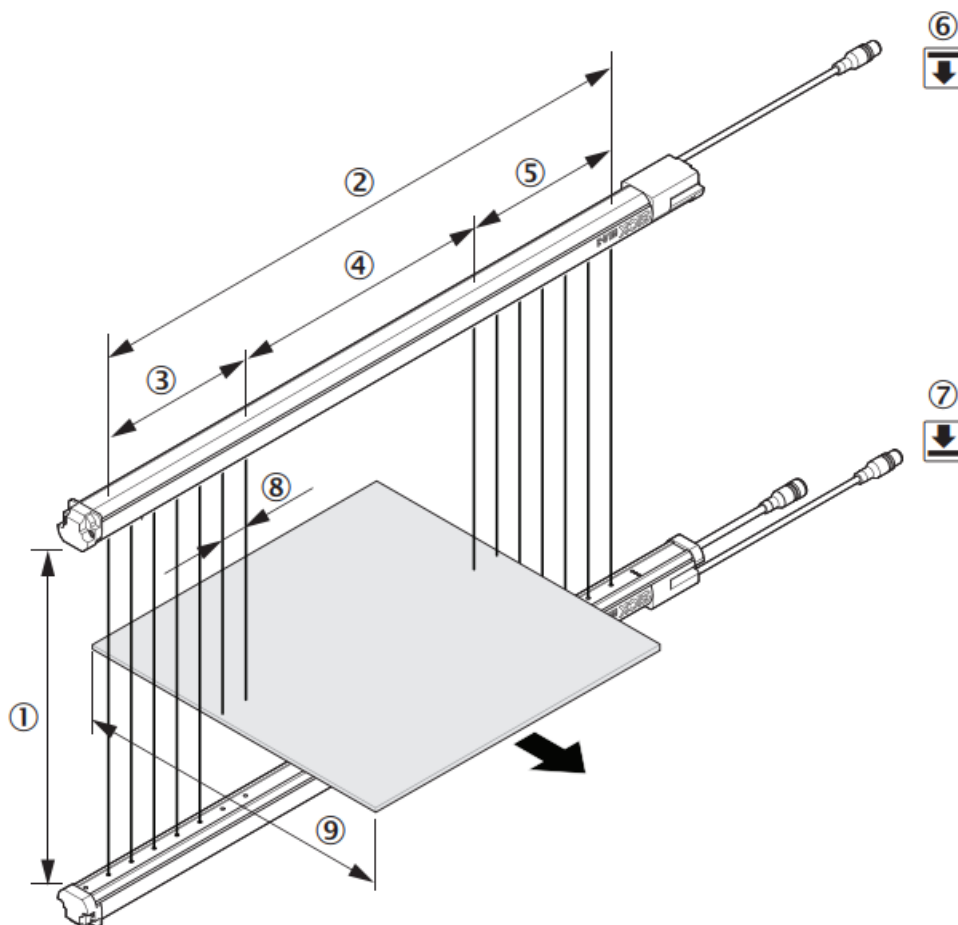
MLG-2 WebChecker



Connection diagram




Product definition








1. Operating range
2. Total measuring field width
3. Measuring field width (head side)
4. Blind zone (medium range)
5. Measuring field width (connection side)
6. Sender
7. Receiver
8. Beam separation
9. Minimum object length

Recommended accessories

[Other models and accessories → www.sick.com/MLG-2_WebChecker](http://www.sick.com/MLG-2_WebChecker)

	Brief description	Type	Part no.
Distributors			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, A-coded • Connection type head B: Female connector, M12, 8-pin, A-coded • Connection type head C: Male connector, M12, 8-pin, A-coded • Note: Male connector M12, 8-pin, to 1 x female connector M12, 8-pin, to 1 x female connector M12, 5-pin, for connecting of a PLC 	SBO-02F12-SM1	6053172

Brief description		Type	Part no.
Plug connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 8-wire, PVC • Description: Sensor/actuator cable, special color code, shielded • Connection systems: Flying leads 	DOL-1208-G05MF	6020664
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 2 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A15-020UB5M2A15	2096009
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 8-pin, straight, A-coded • Connection type head B: Male connector, M12, 8-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 2 m, 8-wire, PUR, halogen-free • Description: Sensor/actuator cable, shielded • Application: Zones with oils and lubricants, Drag chain operation 	YF2A28-020UA6M2A28	2096105
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: Ethernet, PROFINET • Cable: 2 m, 4-wire, PUR, halogen-free • Description: Ethernet, PROFINET, shielded • Application: Drag chain operation, Zones with oils and lubricants 	YM2D24-020PN1MRJA4	2106182
Sensor Integration Gateway			
	<ul style="list-style-type: none"> • Further functions: Web server integrated, USB connection for easy configuration of the SIG200 Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK, logic editor is available for easy configuration of logic functions • Connection CONFIG: 1 x M8, 4-pin female connector, USB 2.0 (USB-A) • Logic editor: yes • Communication interface: IO-Link, USB, Ethernet, PROFINET, REST API • Product category: IO-Link Master 	SIG200-0A0412200	1089794

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 ife ime 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

SICK AG Waldkirch Germany

www.sick.com

Documents / Resources



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MLG05W-0300B12501 MLG-2 WebChecker, MLG05W-0300B12501, MLG-2 WebChecker, Web
Checker, Measuring Automation Light Grids, Automation Light Grids, Light Grids, Grids

References

- [S SICK | Sensor Intelligence](#)
- [User Manual](#)

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