MLG05W-0858N12501

MLG-2 WebChecker

MEASURING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.

MLG05W-0858N12501 | MLG-2 WebChecker

MEASURING AUTOMATION LIGHT GRIDS

Ordering information

Type	Part no.
MLG05W-0858N12501	1118453

Other models and accessories ➜ www.sick.com/MLG-2_WebChecker

Illustration may differ

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	480
Total measuring field width	3,145 mm
Measuring field width detailed	
Measuring field width (connection side)	1,195 mm
Blind zone (medium range)	755 mm
Measuring field width (head side)	1,195 mm
Software features (default)	
Q$_1$	Alarm, general
Application	Standard mode
Included with delivery	1 × sender 1 × receiver 1 x Fieldbus module 4/6 x QuickFix brackets (6 x QuickFix brackets for monitoring heights above 2 m) 1 × Quick Start Guide

[1] See graphic: product definition.
[2] 1 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	79 mA [2]
Power consumption receiver	216 mA [2]
Fieldbus module current consumption	115 mA
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 3,229.4 mm x 30.6 mm
Connection type	Male connector M12, 5-pin, 0.22 m Connector M12, 12-pin, 0.27 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	6.559 kg
Front screen	PMMA
Option	None
UL File No.	NRKH.E181493

[1] Without load.

[2] , Without load with 24 V.

[3] Operating in outdoor condition only with a external protection housing.

Performance

Maximum range	3.5 m [1]
Minimum range	≥ 0.2 m
Operating range	2.5 m
Response time	95.8 ms [2]

[1] No reserve for environmental issue and deterioration of the diode.

[2] With resistive load.

Communication interface

PROFINET	✔
Digital output	Q_1
Number	1

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
Ambient light immunity	100,000 lx
Ambient operating temperature	−30 °C ... +55 °C
Ambient temperature, storage	−40 °C ... +70 °C

Classifications

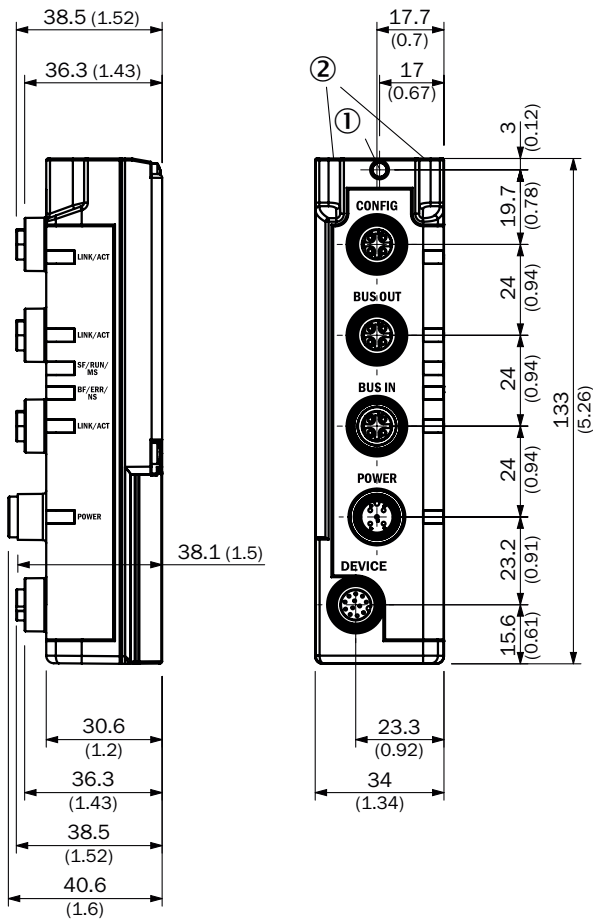|	
ECLASS 5.0	27270910
ECLASS 5.1.4	27270910
ECLASS 6.0	27270910
ECLASS 6.2	27270910
ECLASS 7.0	27270910
ECLASS 8.0	27270910
ECLASS 8.1	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
UNSPSC 16.0901	39121528

## Dimensional drawing (Dimensions in mm (inch))

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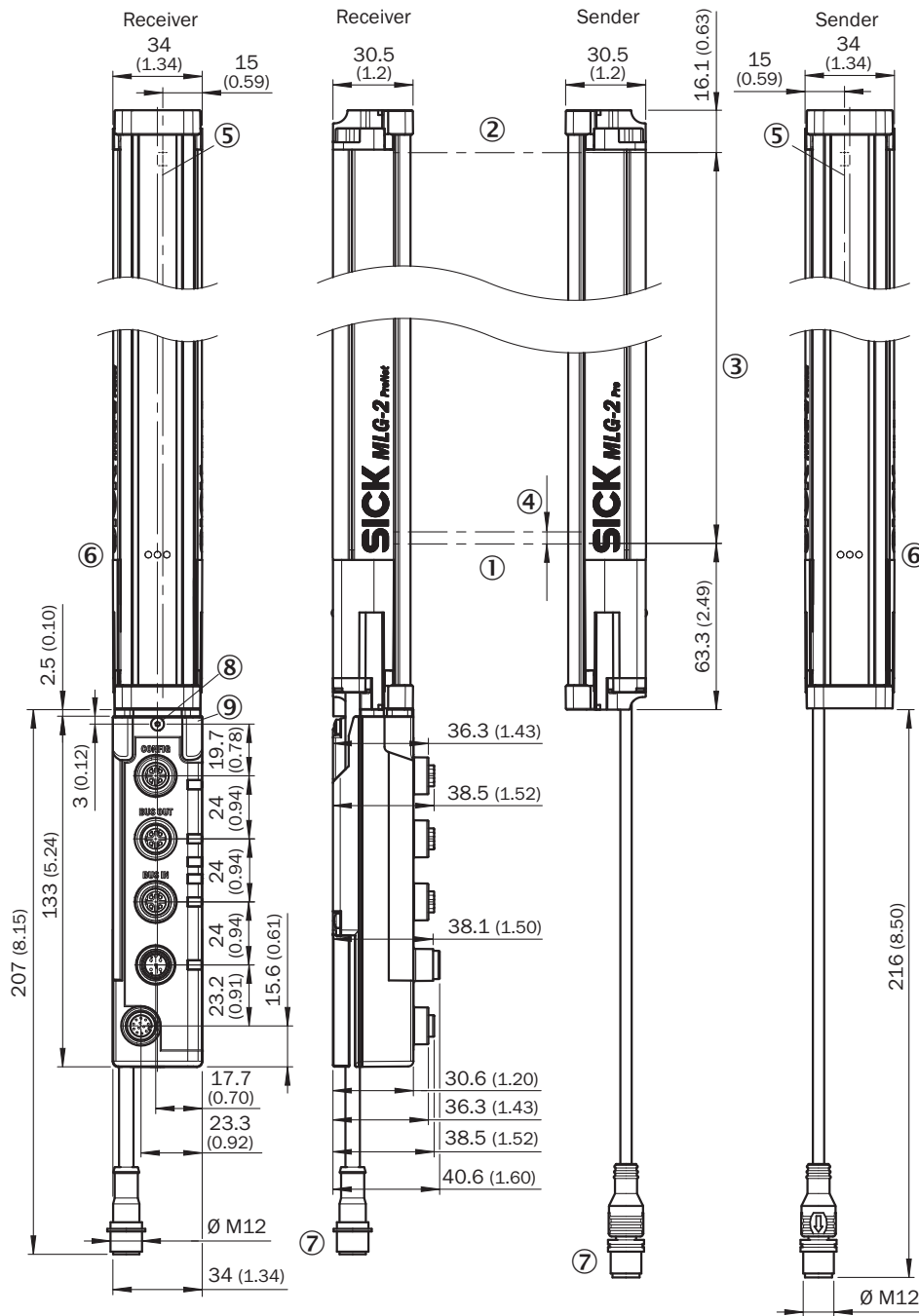
① First beam
② Last beam
③ Total measuring field width (see technical data)
④ Beam separation
⑤ Optical axis
⑥ Status indicator: green, yellow, red LEDs
⑦ Connection

PROFINET, EtherCAT®, EtherNet/IP

38.5 (1.52)
36.3 (1.43)
LINK/ACT
LINK/ACT
SF/RUN/MS
BF/ERR/NS
LINK/ACT
POWER
38.1 (1.5)
30.6 (1.2)
36.3 (1.43)
38.5 (1.52)
40.6 (1.6)

17.7 (0.7)
17 (0.67)
② ①
CONFIG
BUS OUT
BUS IN
POWER
DEVICE
3 (0.12)
19.7 (0.78)
24 (0.94)
24 (0.94)
24 (0.94)
23.2 (0.91)
15.6 (0.61)
133 (5.26)
23.3 (0.92)
34 (1.34)

① Safty screw M4; turning moment 0,5 Nm
② For thread bold M4; turning moment 0,5 Nm

Adjustments

24 (0.94)
SICK
○ Alignment
(Teach)
35.5 (1.4)
17.3 (1.68)

red
○ ○ ○
yel   grn
①
59 (2.32)
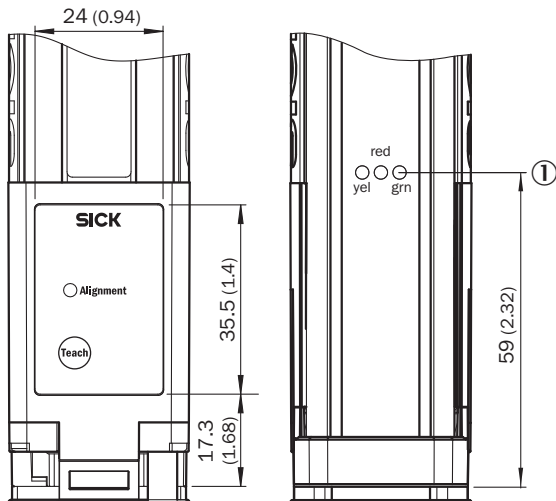
① Status indicator: green, yellow, red LEDs

Connection type and diagram

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Sender	Receiver DEVICE	POWER	BUS IN	BUS OUT	CONFIG

Sender

BN	1	+ (L+)
WH	2	Sync A
BU	3	- (M)
BK	4	Test in
GY	5	Sync B

Receiver DEVICE

①

POWER

BN	1	+ (L+)
WH	2	Sync A
BU	3	- (M)
BK	4	Q_1
GY	5	Sync B

BUS IN

WH/OG	1	Tx+
WH/GN	2	Rx+
OG	3	Tx−
GN	4	Rx−

BUS OUT

WH/OG	1	Tx+
WH/GN	2	Rx+
OG	3	Tx−
GN	4	Rx−

CONFIG

WH/OG	1	Tx+
WH/GN	2	Rx+
OG	3	Tx−
GN	4	Rx−
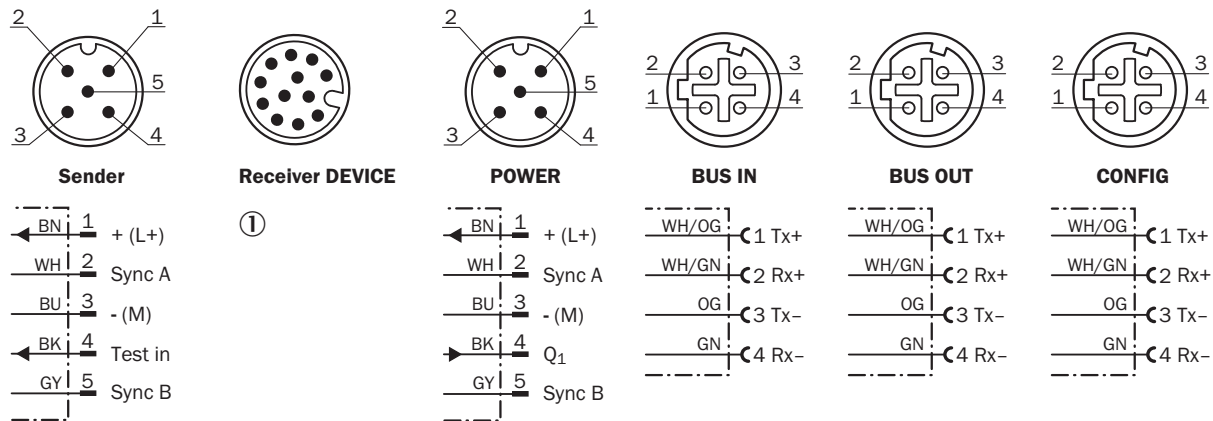
① *Connection to fieldbus module*

Pin assignment

Ethernet
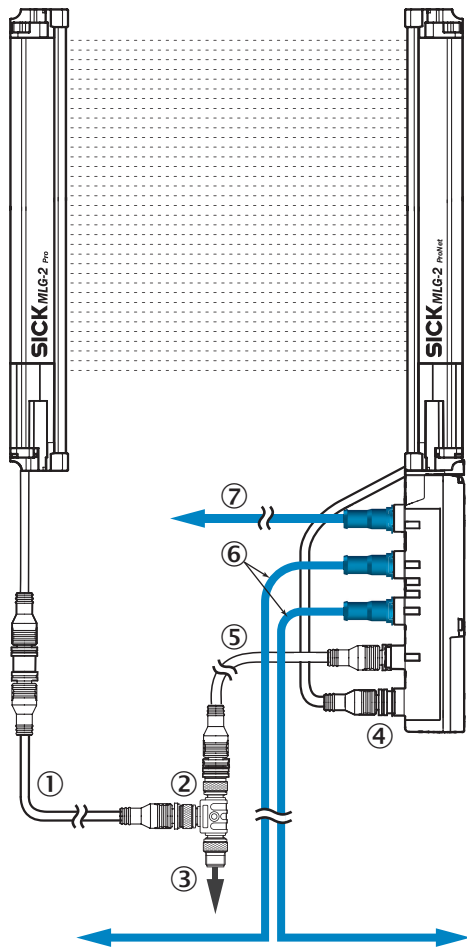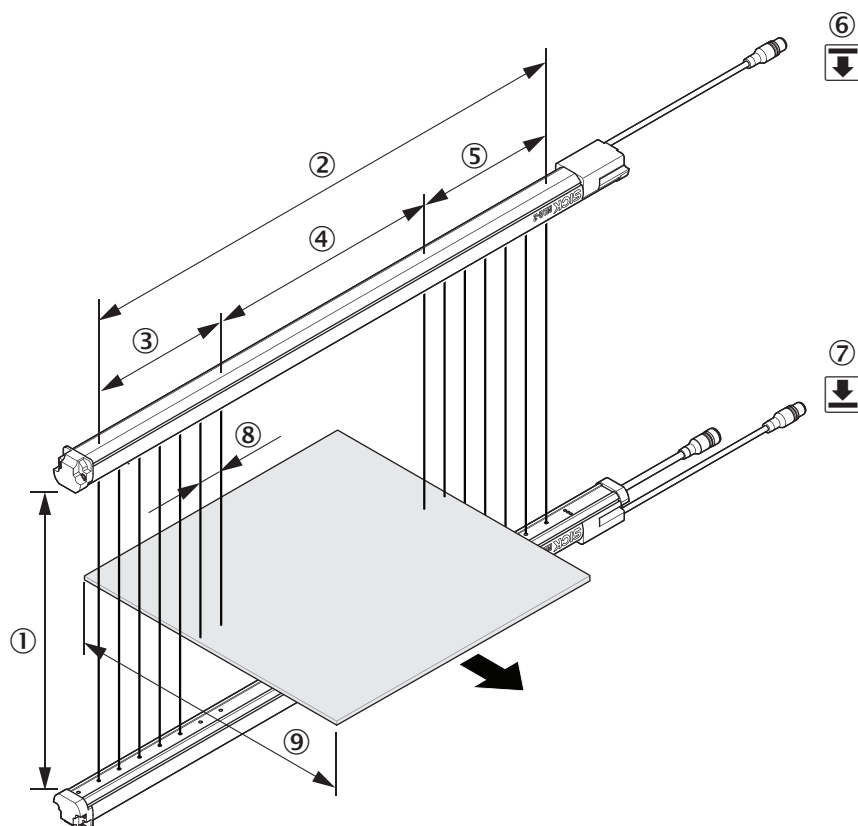

① Connection cable receiver (2096010)
② T-piece
③ Connection cable (2096240)
④ Connection receiver "DEVICE"
⑤ Connection cable "POWER" (2096010)
⑥ Ethernet Connection cable "BUS IN, BUS OUT"
⑦ Ethernet connection cable "CONFIG"

Connection diagram

T-piece

Fieldbus module				T-Junction, 5-pin		I/O
L+	1	BN		1	L+	
Sync_A	2	WH		2	Test_In	
M	3	BU		3	M	
Q1	4	BK		4	Q1	
Sync_B	5	GY		5	nc	

Sender connections:
- L+ 1
- Sync_A 2
- M 3
- Test_In 4
- Sync_B 5
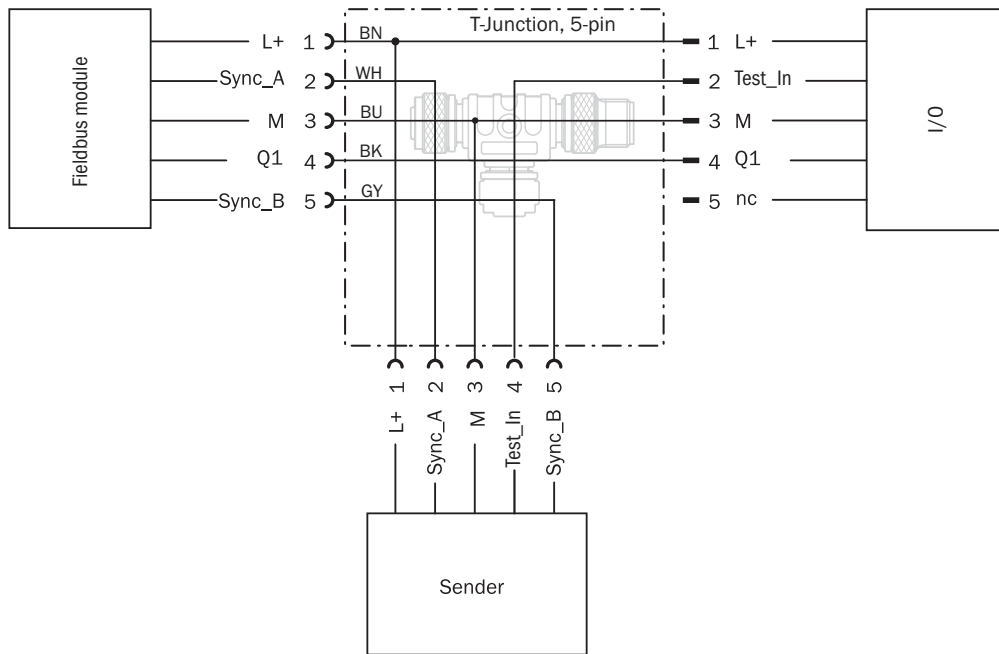
Sender

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

Brief description	Type	Part no.
Distributors		
• **Connection type head A:** Female connector, M12, 5-pin, A-coded • **Connection type head B:** Female connector, M12, 5-pin, A-coded • **Connection type head C:** Male connector, M12, 5-pin, A-coded • **Note:** Male connector M12, 5-pin, straight, A-coded to 2 x female connector M12, 5-pin, straight, A-coded	SB0-02G12-SM	6029305

	Brief description	Type	Part no.
Plug connectors and cables			
	• **Connection type head A:** Female connector, M12, 5-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 5-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals	YF2A15-050VB5XLEAX	2096240
	• **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:** 5 m, 5-wire, PUR, halogen-free • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with oils and lubricants, Drag chain operation, Robot	YF2A15-050UB5M2A15	2096010
	• **Connection type head A:** Male connector, M12, 4-pin, D-coded • **Connection type head B:** Male connector, M12, 4-pin, D-coded • **Signal type:** Ethernet • **Cable:** 5 m, 4-wire, PUR, halogen-free • **Description:** Ethernet, twisted pair, shielded • **Permitted cross-section:** ≥ 0.25 mm² • **Application:** Zones with oils and lubricants	YM2D24-050EA2M2D24	6034422
	• **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:** 5 m, 4-wire, PUR, halogen-free • **Description:** Ethernet, PROFINET, shielded • **Application:** Drag chain operation, Zones with oils and lubricants	YM2D24-050PN1MRJA4	2106184
Terminal and alignment brackets			
	Mounting bracket for external mounting of the fieldbus module, 1 × mounting bracket and 1 × M5 × 6 screw, Stainless steel V2A (1.4301)	BEF-WN-FBM-SET1	2082322

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