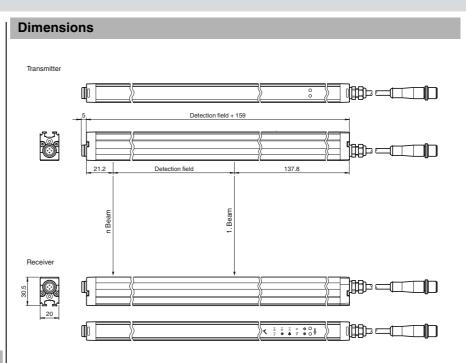
# Automation light grid





## **Model Number**

## LGS100

CE

# Light grid

with fixed cable with 4-pin, M12 x 1 connector, and fixed cable with 8-pin, M12 x 1, connector

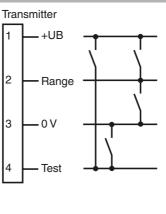
### Features

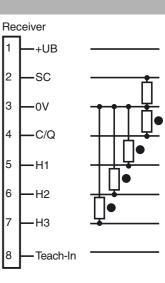
- Automation light grid ٠
- Optical resolution 100 mm •
- Super-fast object detection, even with 3-way beam crossover
- Software-free adjustment of height monitoring
- Object identification using integrated object recognition
- IO-link interface for service and • process data
- Optional temperature range to -30 °C

## **Product information**

The LGS automation light grid series detects objects ranging in size from small to large. The very slender light grids have a modular design and come in different beam spacings and field heights. All signal evaluation takes place inside the unit. The lightweight systems can be integrated in their surroundings in a well-designed configuration, which means that machines and plants in temperature ranges between -30 °C ... +60 °C can be designed more compactly.

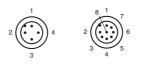
## **Electrical connection**



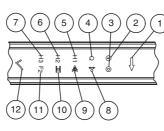


7

# Pinout



## Indicators/operating means



١Ľ	1	Menu button	yellow	7	Height checking 3	yellow
	2	Operating indicator	green	8	Object floating	yellow
ſ	3	Status display	yellow	9	Crossing	yellow
ľ	4	Q object	yellow	10	Peripheral beam tolerance	yellow
ſ	5	Height checking 1	yellow	11	2nd level	yellow
ľ	6	Height checking 2	yellow	12	OK button	yellow
	~					

2nd level: Beam collimation, inverse mode, light-on/dark-on switching, reset factory setting, signal tracking

Refer to "General Notes Relating to Pepperl+Fuchs Product Information" USA: +1 330 486 0001 fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411 fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com



Effective detection range     Standard: 0.3 6 m Option 735: 0 m When beam crossover is activated, the detection range starts at EM     Dot       Threshold detection range     Standard: 1.7.5 m Option 735: 10 m Option 735: 10 m     OM       Upht source     HEED     Mathematical activity of the start of	Technical data			Accessories
Effective detection range     Standard: 0.3 6 m Option 75.5 0.5 8 m When beam crossover is activated, the detection range starts at EM     Dot, Standard: 0.5 6 m When beam crossover is activated, the detection range starts at EM     Dot, Standard: 0.5 6 m When beam crossover is activated, the detection range starts at EM     Dot, Standard: 0.5 6 m When beam crossover is activated, the detection range starts at EM     Dot, Standard: 0.5 6 m When beam crossover is activated, the detection range starts at EM     Dot, Starts       Field height     eee Table 1, rmax. 30     Starts     Starts       Beam blanking     adjustable in rmax. 31     Starts     OM       Beam blanking     adjustable in rmax. 31     Starts     OM       Beam planking     eee Table 1, rmax. 31     Starts     OM       Beam planking     eee Table 1, rmax. 31     Starts     OM       Optical resolution     without beam crossover: 100 mm     OM       Anjel of divergence     r0     r0     Minot       Anjel of divergence     r0     Starts     OM       Mittrig     20 a 6     Starts     OM       Diagnastic Coverage (DC)     60 %     Starts     AA       Operating mode     Fem     Starts     AA       Operating mode     Fem     Starts     AA       Operating voltage     U     10 also coverage     Starts       Operating voltage<	General specifications			V19-G-EMV-BK
Interestion detection range     Option 78: 10 m     After       Light type     PED     ILG       Light type     PED     ILG       Field height     see Table 1, max. 3000 mm     OM       Beam cossour     Factory setting: three beam cossing, deactivateable     Statistic 1, max. 31       Beam spacing     100 mm     OM       Number of beams     see Table 1, max. 31     OM       Optical resolution     without beam cossours: 100 mm     Mode       Angle of divergence     10 <sup>3</sup> State and provide the opening angle in two ranges     OM       Angle of divergence     10 <sup>3</sup> State angle in the open adjustable in two ranges     OM       Mission Time (T <sub>M</sub> )     20 a     OM     Mode       Diperation indicator     60 %     Mode     Mode       Indicator Sorger (DC)     60 %     Mode     Mode       Indicator Sorger (DC)     60 %     Mode     Mode       Indicator Sorger (DC)     10 %     Mode     Mode       Control elements     Receiver: 2 bouch hutchins for programming     Fer       Parametrization indicator     10 %     Mode     Mode       Protocol     10 %     Mode     Mode     Mode       Control elements     Receiver: 2 bouch Autors for programming     Fer       Paramet	·		Option /35: 0.5 8 m When beam crossover is activated, the detection range starts at	Double-ended co EMC filter, 8-pin
Light type         modulated infracel light, 850 nm         Control feed height         See Table 1, max. 300 nm           Beam crossover         Factory setting: three beam crossing, deactivateable         Swit           Beam spacing         100 nm         Swit           Beam spacing         100 nm         Swit           Protocol         Emitter Emitter power adjustable in two ranges         OM           Operating mode         Emitter Emitter power adjustable in two ranges         OM           Angle of divergence         10°         Switching the space adjustable in two ranges         OM           Angle of divergence         10°         Switching the space adjustable in two ranges         OM           MTTFg         78 a         OM         MM           Mission Time (Trg.)         20 a         On         MM           Diagnostic Coverage (DC)         60 %         MM         MM           Indicator Screenting space         Greent LED, pulsing (approx. 0.8 Hz), short-circuit : LED green (attabulk in two nating abover in the space adjustable in max. 30 modulates at high smitting power, of at the weak flag gatoric the stability contol (4 Hz) arrow when faling abort the stability contol (4 Hz) arrow when faling (approx. 4 Hz)         Fer           Function indicator         Immitting abover in the space adjustable in adj			Option /35: 10 m	OMH-LGS-01 Attachment aid f
Field height     see Table 1, max. 3000 mm     OM       Beam crossover     Factory setting: three beam crossing, deachivateable     Swi       Beam spacing     100 mm     Swi       Beam spacing     100 mm     Swi       Operating mode     Emitter: Emitter power adjustable in two ranges     OM       Optical resolution     with beam crossover: 100 mm     MM       Angle of divergence     10°     Source is outside the opening angle)     OM       Angle of divergence     10°     Source is outside the opening angle)     OM       Functional safety related parameters     With beam crossover: 50 mm with in 25% and 75% of the range     OM       MitFig     78 a     OM     MM       Diagnostic Coverage (DC)     60 %     MM       Indicators/operating means     OP     OM       Operation indicator     Emitter: Yellow LED, illuminates at high emitting power, off at flow indicator     MA       Operating voltage     Up     18 30 V DC     Yei       Parameterization indicator     Indicator: StorA     Receiver: StorA       Prince delay before availability     ty     Sectifies the storage out of the stability control (4 Hz)       Electrical specifications     Oo Ma     Oo Ma       Operating voltage     Up     18 30 V DC     Yei       Finput     Emitter:	-			LGM
Deck uses involution         Proceedings         Status           Beam crossover         Factory setting: three beam crossing, deactivateable         Status           Beam space         100 mm         Muthor of beams         Status           Operating mode         Entitler, instatus         Status         Muthor arges           Operating mode         Entitler. Entitler power adjustable in two ranges         Muthor arges         Muthor arges           Operating mode         Entitler. Entitler power adjustable in two ranges         Muthor arges         Muthor arges           Operating mode         Entitler. Entitler power adjustable in two ranges         Muthor arges         Muthor arges           Angle of divergence         10°         Angle of divergence         Muthor arges         Muthor arges           MTFLG         20 a         Diagnostic Coverage (DC)         60 %         Muthor arges         Muthor arges           Function indicator         Fore ora: LED green, statically lif, Undervoltage indicator: Green LED, Jubing (approx 0.61 / b.), short-crucit. LED green flashing (bree diverse)         Muthor arges           Function indicator         ID ink communication: green LED golos out briefly (I	• ,1			OMH-SLCT-06
Beam spacing         adjustable mol: 2 fixed suppressible beam areas (blanking)         OM           Beam spacing         100 mm         See Table 1, max. 31         Output           Operating mode         Emitter: Entiter power adjustable in two ranges         OM           Optical resolution         with beam crossover: 100 mm with in 25% and 75% of the range         OM           Angle of divergence         10°         Store and the range         OM           Angle of divergence         10°         Store and the range         OM           Mission Time (T <sub>k1</sub> )         20 a         OM         Mo           Diagnostic Coverage (DC)         60 %         Mo         Mo           IndicatorsOperating means         Power on: LED green, statically lit, Undervoltage indicator: Green LED, pulsing (approx. 0.8 Hz), short-circuit : LED green range         MA           Function indicator         Emitter: Yellow LED fishes (B Hz) in emitter and receiver         Curit           Function indicator         Io ink communication: green LED goes out briefly (1 Hz)         Fer           Parameterization indicator         Io ink communication: green LED goes out briefly (1 Hz)         Fer           Parameterization indicator         Io ink communication: green LED goes out briefly (1 Hz)         Fer           Periaution indicator         Io ink communication: green LED goes out briefly (1 Hz)	•			Swivel Bracket
Beam spacing         100 mm         And the second of the s				
Operating mode         Emitter: Emitter power adjustable in two ranges         OM           Operating resolution         without beam crossover: 100 mm         Mode         <	· · · · · · · · · · · · · · · · · · ·			OMH-SLCT-01
Optical resolution       without beam crossover: 100 mm       Mod         Angle of divergence       10°       50000 Lux (if external light source is outside the opening angle)       Mod         Functional safety related parameters       MTTF_       78 a       Mod         Minima angle)       20 a       Mod       Mod         Operation indicator       Power on: LED green, statically lit, Undervoltage indicator:       MA         Operation indicator       Power on: LED green, statically lit, Undervoltage indicator:       AA         Function indicator       Power on: LED green, statically lit, Undervoltage indicator:       Curl Hashing (approx. 0.8 Hz), short-circuit: LED green of the training power. (if at low entiting power. Store without board on entestability in entitice and receiver: Yellow LED literation and the statically lit, undervoltage indicator receiver:       Y1-         Control elements       Receiver: 2 touch buttons for programming       Fen         Parameterization indicator       10 link communication: green LED goes out briefly (1 Hz)       Y1-         Electrical specifications       10 link communication: green LED goes out briefly (1 Hz)       Fen         Time delay before availability       t, see Table 1, max: 1.1 s       Y1-         Interface       Interface       Interface       Y1-         Time delay before availability       t, see Table 1, max: 1.1 s       Y1-	· •		see Table 1, max. 31	Quick clamp and
Optical resolution       without beam crossover: 100 mm       Mod         Angle of divergence       10°       Mod         Ambient light limit       > 50000 Lux (if external light source is outside the opening angle)       Mod         Functional safety related parameters       (Mod         MTFrg.       78 a       (Mod         Masion Time (Tw)       20 a       (Mod         Diagnostic Coverage (DC)       60 %       (Mod         Indicators/operating means       Operation indicator       Power on: LED green, statically lit, Undervoltage indicator: Green LED, pulsing (approx. 04 H2) short-circuit : LED green fassing (approx. 04 H2) short-circuit : LED green fassing (approx. 14 H2)       AA         Function indicator       Control elements       Receiver: 2 fouch buttons for programming       Y1-         Ferameterization indicator       IO link communication: green LED goes out briefly (1 H2)       Y1-         Pertainty outge       Ug       18 30 V DC       Fer         Ripple       10 %       Similar ext. 1.s       Y1-         No-load supply current       Ig       Emitter : Sio mA       Fer         No-load supply current       Ig       Emitter : Sio TA       Fer         Protocol       IO-Link V1.0       Y1-       Fer       Y1-         Function input       Receiver:	Operating mode		Emitter: Emitter power adjustable in two ranges	OMH-SLCT-03
Ambient light limit     > 50000 Lux (if external light source is outside the opening angle)     MM       Functional safety related parameters     MTTF     78 a       MTTG     78 a       Mission Time (Ty)     20 a       Diagnostic Coverage (DC)     60 %       Indicators/operating means     Power on: LED green, statically lit, Undervoltage indicator: Green LED, pulsing (approx. 44 z)     AA       Operation indicator     Power on: LED green, statically dir, short-circuit : LED green flashing (approx. 44 z)     AA       Function indicator     Entiter: Yellow LED, illuminates when an object is detected flashes when failing shore or programming     V1-       Function indicator     ID link communicatin: green LED goes out briefly (1 Hz)     Fen       Control elements     Receiver: 50 mA     Fen       Parameterization indicator     ID ink communication: green LED goes out briefly (1 Hz)     Fen       Electrical specifications     OQ     Y1-       Operating voltage     Up     10 %     Y1-       No-load supply current     Ip     Be Table 1, max. 1.1 \$     Y1-       Interface type     IO-Link Y10     Y1-       Protocol     IO-Link Y10     Y1-       Fen     Y1-     Sub or Y0 on pi 2 (meetly)       Fen     Y1-     Sub or Y0 on pi 2 (meetly)       Fen     Y1-     Sub or Y0 on pi 2 (meetly) <td></td> <td></td> <td>with beam crossover: 50 mm with in 25% and 75% of the range</td> <td>Mounting brooks</td>			with beam crossover: 50 mm with in 25% and 75% of the range	Mounting brooks
angle)         Mode           Functional safety related parameters         (witt           MTFF <sub>a</sub> 78 a           Mission Time (T <sub>ab</sub> )         20 a           Diagnostic Coverage (DC)         60 %           Indicators/operating means         AA           Operation indicator         Prover on: LED green, statically lit, Undervoltage indicator: Green LED, pulsing (approx. 44 A)         AA           Functional static and the indicator         Emitter: Yellow LED, illuminates when an object is detected flashes when falling short of the stability control (4 Hz)         Function indicator           Control elements         Receiver: Yellow LED, illuminates when an object is detected flashes when falling short of the stability control (4 Hz)         Fen           Parameteristication indicator         IO link communication: green LED goes out briefly (1 Hz)         Fen           Parameteristication indicator         IO link communication: green LED goes out briefly (1 Hz)         Fen           Protocol         IO Link V1.0         Y1- Receiver: S150 mA         Fen           No-load supply current         Io         Receiver: S160 mA         Fen           Interface type         IO-Link V1.0         Y1- Receiver: S150 mA         Fen           Total quest protocol         IO-Link V1.0         Y1- Receiver: S150 mA         Fen           Function input				OMH-SLCT-04
MTTF_g       78 a         Massion Time (T <sub>k</sub> )       20 a         Diagnostic Coverage (DC)       60 %         Indicators/operating means       Power on: LED green, statically it, Undervoltage indicator: Green LED, publing (approx. 0.8 Hz), short-circuit : LED green flashing (approx. 0.8 Hz), short-circuit : LED	·			Mounting bracke (with loose beari
Mission Time (T <sub>kk</sub> )     20 a     00       Diagnostic Coverage (DC)     60 %     AA       Operation indicator     Prover on: LED green, statically if, Undervoltage indicator:     AA       Procent LED, public (approx. 6.1 Hz), short-circuit : LED green flashing (approx. 4 Hz)     AA       Function indicator     Prover on: LED green, statically if, Undervoltage indicator:     AA       Function indicator     Prover on: LED green, statically if, Undervoltage indicator:     A       Function indicator     Control elements     Receiver: Yelow LED illuminates when an object is detected flashes when falling short of the stability control (4 Hz)     Fen       Control elements     Receiver: 2 touch butons for programming     Fen       Parameterization indicator     IO link communication: green LED goes out briefly (1 Hz)     Y1-       Control elements     Receiver: 5 100 mA     Fen       Ripple     10 %     Y1-       Protocol     IO-Link     Fen       Interface     IO-Link     Fen       Interface type     IO-Link V1.0     Fen       Mode     COM2 (28.4 RBaud)     Fen       Input     Fastip: data on, Switchable to light-on mode     Cor       Function input     Range input activation from 1.6 m (or 2 m in case of option .75) with +UB or 0 V at pin 2 (emitter)     Fen       Statip ty protected on pin 2 (receiver)     Cor <td< td=""><td></td><td>ameters</td><td>79.0</td><td></td></td<>		ameters	79.0	
Diagnostic Coverage (DC)         60 %         Mon           Indicators/operating means         Operation indicator         Genemation indicator         Generation ind	-			OMH-SLCT-05
Indicators/operating means       AA         Operation indicator       Power on: LED green, statically lit, Undervoltage indicator: Green LED, pulsing (approx. 6 H2), short-circuit : LED green flashing (approx. 4 H2)       AA         Function indicator       Emitter Yellow LED, Illuminates at high emitting power, off at low emitting power       Y1-         Function indicator       Emitter Yellow LED illuminates when an object is detected flashes when falling short of the stability control (4 Hz) Error message: Yellow LED flashes (8 Hz) in emitter and receiver       Y1-         Control elements       Receiver: Xellow LED illuminates when an object is detected flashes when falling short of the stability control (4 Hz)       Y1-         Control elements       Receiver: Xellow LED illuminates when an object is detected flashes when falling short of the stability control (4 Hz)       Y1-         Control elements       Receiver: Stability Control spectromeanting       Fer         Operating voltage       Ug       18 30 V DC       Fer         Ripple       10 %       Y1-       Fer         Interface       Interface       Interface       Y14         True delay before availability       t, see Table 1, max. 1.1 s       Y14         Mode       COM2 (28.4 KBaud)       Fer       Y14         Founction input       Range input activation from 1.6 m (or 2 m in case of option /25) with +UB or 0 V on pin 2 (emitter)       Y14 </td <td>·</td> <td></td> <td></td> <td>Mounting bracke</td>	·			Mounting bracke
Operation indicator       Power or: LED green, statically lit, Undervoltage indicator: Green LED, public (approx. 0.8 Hz), short-circuit : LED green flashing (approx. 4 Hz)       Pro- freen LED, public minates when an object is detected flashes when failing short of the stability control (4 Hz) Error message: Yellow LED illuminates when an object is detected flashes when failing short of the stability control (4 Hz) Error message: Yellow LED flashes (8 Hz) in emitter and receiver       Y1- Fen         Control elements       Receiver: Yellow LED flashes (8 Hz) in emitter and receiver       Y1- Fen         Parameterization indicator       Io link communication: green LED goes out briefly (1 Hz)       Y1- Fen         Electrical specifications       Io %       Y1- Fen         Operating voltage       Up       18 30 V DC       Fen         Ripple       10 %       W1- Fen       Fen         No-load supply current       Up       Emitter :: 50 mA Receiver: 150 mA (without outputs)       Fen         Time delay before availability       tv       see Table 1, max. 1.1 s       Y1- Fen         Interface       Io-Link V1.0       Y1- Fen fault indication output       Fen         Pro-fault indication output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)       Y1- Fen         Switching type       Factory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of deceiverei, deleativat				AA SLCT-01
Control Number       Dow emitting power       W1-         Receiver: Yellow LED: Illuminates when an object is detected flashes when faling short of the stability control (4 Hz) Error message: Yellow LED flashes (6 Hz) in emitter and receiver       V1-         Control elements       Receiver: Yellow LED flashes (6 Hz) in emitter and receiver       V1-         Parameterization indicator       IO link communication: green LED goes out briefly (1 Hz)       V1-         Electrical specifications       IO %       V1-         Operating voltage       Up       18 30 V DC       Fen         Ripple       10 %       V1-       Fen         No-load supply current       Io       Emitter <: 50 mA			Green LED, pulsing (approx. 0.8 Hz) , short-circuit : LED green	Profile alignment of the SLCS and
fiashes when falling short of the stability control (4 Hz) Error message: Yellow LED flashes (8 Hz) in emitter and receiverFenControl elementsReceiver: 2 touch buttons for programmingFenParameterization indicatorU link communication: green LED goes out briefly (1 Hz)Y1-Electrical specificationsU18 30 V DCPorating voltageUg18 30 V DCFenRipple10 %Y1-No-load supply currentIgEmitter s: 50 mAY1-Time delay before availabilityt,see Table 1, max. 1.1 sY1-ProtocolIO-LinkFenProtocolIO-LinkFenProtocolIO-Link V1.0Y1-ModeCOM 2 (38.4 kBaud)FenFunction inputEmitter switch-off with +UB or 0 V at pin 4 (emitter)Y1-Function inputRange input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)Y1-Pre-fault indication outputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 3 (receiver)Y1-Switching typeFactory setting: dark on , Switchable to light-on modeY1-Switching typeFactory setting: dark on , Switchable to light-on modeY1-Switching thresholdFactory setting: The signal tracking for the threshold value is of deactivated, increasing the optical resolution by a maximuof A mm; switchable to active signal trackingY1-Switching thresholdFactory setting: The signal tracking for the threshold value is of deactivated, increasing the optical resolution	Function indicator		low emitting power	curtains
Control elementsReceiver: 2 touch buttons for programmingVI- FerParameterization indicatorIO link communication: green LED goes out briefly (1 Hz)VI- FerElectrical specificationsUB 18 30 V DCVI- FerRipple10 %VI- Receiver: \$ 150 mA (without outputs)VI- FerTime delay before availability $t_{v}$ see Table 1, max. 1.1 sVI- FerInterfaceIO-LinkVI- Receiver: \$ 150 mA (without outputs)VI- FerInterface typeIO-Link V1.0VI- ModeVI- FerModeCOV2 (38.4 kBaud)VI- FerFerInputEmitter switch-off with +UB or 0 V at pin 4 (emitter)FerFunction inputRange input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (receiver)VI SOutputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)VI SSwitching typeFactory setting: dark on , Switchable to light-on modeIO-Link (receiver), WI HSwitching typeFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking for the circuit protected on pin 5, pin 6, pin 7 (receiver), Switching thresholdIO-Link Set optical resolution by a maximum of 4 mm; switchable to active signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchab			flashes when falling short of the stability control (4 Hz) Error message: Yellow LED flashes (8 Hz) in emitter and	V1-G-BK2M-PU Female cordset,
Parameterization indicator       IO link communication: green LED goes out briefly (1 Hz)       V1-         Electrical specifications       Operating voltage       U <sub>B</sub> 18 30 V DC       Fen         Ripple       10 %       Emitter <: 50 mA Receiver: : 150 mA (without outputs)       Fen       Fen         Time delay before availability       t <sub>v</sub> see Table 1, max. 1.1 s       V15         Interface       IO-Link       Fen       Fen         Interface type       IO-Link V1.0       V16       Fen         Interface       Index V10       V16       Fen         Input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)       Y15         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)       Y16         Function input       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)       V16         Output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 4 (receiver)       Fen         Switching type       Factory setting: dark on , Switchable to light-on mode       IO-Link         Signal output       Stability Control (SC) 1 PNP, short-circuit protected on pin 5, pin 6, pin 7 (receiver)       M12         Switching threshold       Factory setting: The signal tracking for th	Control elements		Receiver: 2 touch buttons for programming	V1-G-BK5M-PU
Operating voltage       Ug       18 30 V DC       Fent         Ripple       10 %       Emitter <:: 50 mA	Parameterization indicator			Female cordset,
Ripple       10 %       V1-         No-load supply current       I <sub>0</sub> Emitter ≤: 50 mA Receiver: 5150 mA (without outputs)       V1-         Time delay before availability       t <sub>v</sub> see Table 1, max. 1.1 s       V11         Interface       Interface       V11         Interface       IO-Link       Y11         Protocol       IO-Link V1.0       V11         Mode       COM 2 (38.4 kBaud)       Y11         Function input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)       Y11         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)       Y11         Function input       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)       Y11         Output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 4 (receiver)       Y11         Switching type       Factory setting: dark on , Switchable to light-on mode       IO-Link         Switching threshold       Factory setting: dark on , Switchable to apple with (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver)       M12         Switching threshold       Factory setting: dark on , Switchable to apple mult (4 in 1) output, short-circuit protected, reverse polarity protected on pin 5, pin 6, pin 7 (recei	Electrical specifications			V1-G-BK10M-P
No-load supply current       I0       Emitter ≤: 50 mA Receiver: ≤: 150 mA (without outputs)       Y1- Receiver: ≤: 150 mA (without outputs)         Time delay before availability       tv       see Table 1, max. 1.1 s       Y1- Fen         Interface       Interface type       IO-Link       Fen         Protocol       IO-Link V1.0       Fen       Y1- Fen         Mode       COM 2 (38.4 kBaud)       Fen         Input       Entiter switch-off with +UB or 0 V at pin 4 (emitter)       Y1- Fen         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)       Y1- Fen         Output       Pre-tault indication output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)       Y1- PUF         Switching type       Factory setting: dark on , Switchable to light-on mode       IO- IO- IO- IO- IO- IO- IO- IO-         Signal output       Switching (H1, H2. H3) 3 push-pull (4 in 1) output, short-circuit protected, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking       For         Switching ourrent       max. 300 PC       For         Switching current       max. 300 mA       For         Aubient conditions       Standard : -10 60 °	Operating voltage	UB	18 30 V DC	Female cordset,
Interface       Interface       Y18         Interface       V19         Interface       V19         Interface       IO-Link         Protocol       IO-Link V1.0         Mode       COM 2 (38.4 kBaud)         Input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)         Function input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)         Function input       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 8 (receiver)         Output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 4 (receiver).         Switching type       Factory setting: dark on , Switchable to light-on mode         Signal output       Switch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected on pin 5, pin 6, pin 7 (receiver)         Switching threshold       Factory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking         Switching turent       max. 30 v DC         Switching current       max. 100 mA         Voltage drop       Ud S2 V DC         Switching frequency       fee see Table 1, max. 6 m s         Ti				
Interface       V15         Interface type       IO-Link         Protocol       IO-Link V1.0         Mode       COM 2 (38.4 kBaud)         Input       Fern         Test input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)         Function input       Barge input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (enciver)         Output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)         Switching type       Factory setting: dark on , Switchable to light-on mode         Signal output       Switch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2, H3) 3 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)         Switching threshold       Factory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking         Switching threshold       See Table 1, max. 135 Hz         Switching frequency       fsee Table 1, max. 135 Hz         Switching frequency       fsee Table 1, max. 6 ms         Timer function       Off-delay programmable fron 0 1.25 s in 5 ms steps (ad		-	Receiver: $\leq$ 150 mA (without outputs)	V1-G-BK15M-P Female cordset,
Interface type       IO-Link       Fent         Protocol       IO-Link V1.0       V19         Mode       COM 2 (38.4 kBaud)       Fent         Input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)       V19         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)       V19         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)       V19         Output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 3 (receiver)       V19         Switching type       Factory setting: dark on , Switchable to light-on mode       IO-I         Signal output       Switch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) outputs, short-circuit protected on pin 5, pin 6, pin 7 (receiver).       M12         Switching threshold       Factory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking       M24         Switching requency       f see Table 1, max. 135 Hz       IOD         Response time       see Table 1, max. 6 ms       Soft fram         Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       IOD </td <td></td> <td>t<sub>v</sub></td> <td>see Table 1, max. 1.1 s</td> <td>V19-G-BK10M-</td>		t <sub>v</sub>	see Table 1, max. 1.1 s	V19-G-BK10M-
Instant of ype       10 - Link V1.0         Mode       COM 2 (38.4 kBaud)         Input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter) Teach-In input for programming on pin 8 (receiver)       V19         Output       Pre-fault indication output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)       V19         Switching type       Factory setting: dark on , Switchable to light-on mode       IO-I         Signal output       Switch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)         Switching threshold       Factory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking       PAd         Voltage drop       Ud       ≤ 2 V DC       Soft       Soft         Switching frequency       f       see Table 1, max. 6 ms       Soft         Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       Soft         Ambient temperature       Standard : -10 60 °C (-22 140 °F)       IOD       Soft <td></td> <td></td> <td></td> <td>Female cordset,</td>				Female cordset,
ModeCOM 2 (38.4 kBaud)V18InputTest inputEmitter switch-off with +UB or 0 V at pin 4 (emitter)Function inputRange input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V or pin 2 (emitter) Teach-In input for programming on pin 8 (receiver)V19OutputPre-fault indication outputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)V19Switching typeFactory setting: dark on , Switchable to light-on modeIO-I IO-Lix short-circuit protected, reverse polarity protected on pin 4 (receiver).IO-I IO-Lix short-circuit protected, reverse polarity protected on pin 4 (receiver).Switching typeFactory setting: Hars in the signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-I IO-Lix SoftSwitching voltagemax. 30 V DCMassSwitching frequencyfsee Table 1, max. 135 HzIODSwitching frequencyfsee Table 1, max. 135 HzIODSwitching frequencyfsee Table 1, max. 6 msSoftTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)IODAmbient temperatureStandard: -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)IODMechanical specificationsV11- CorCorHousing width20 mmV11- Cor				,
Imput       Fent         Test input       Emitter switch-off with +UB or 0 V at pin 4 (emitter)         Function input       Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter) Teach-In input for programming on pin 8 (receiver)       V19         Output       Pre-fault indication output       Stability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)       V19         Switching type       Factory setting: dark on , Switchable to light-on mode       IO-I         Signal output       Switch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, neverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) outputs, short-circuit protected, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking       PAM         Switching voltage       max. 100 mA       PAM         Voltage drop       Ud       ≤ 2 V DC         Switching frequency       f see Table 1, max. 135 Hz       IOD         Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       Soft fram         Ambient temperature       Standard :-10 60 °C (14 140 °F)       IOD				V19-G-BK2M-P
Test inputEmitter switch-off with +UB or 0 V at pin 4 (emitter)V19Function inputRange input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter) Teach-In input for programming op pin 8 (receiver)V19OutputTeach-In input for programming op pin 8 (receiver)V19Pre-fault indication outputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)V19Switching typeFactory setting: dark on , Switchable to light-on modeV19Signal outputSwitch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) outputs, short-circuit protected, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-I (Switching thresholdSwitching voltagemax. 30 V DCSwitching for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingPAM FDTVoltage dropUd $\leq 2 V DC$ Switching frequencyfSwitching frequencyfsee Table 1, max. 135 HzIOD SoftTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)IOD SoftAmbient temperatureStandard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)IOD SoftMational specificationsY10 Y11-Y10 Y11-Y11- Y11-Housing width20 mmY11-				Female cordset,
Function inputRange input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter) Teach-In input for programming on pin 8 (receiver)FerOutputPre-fault indication outputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)V19Switching typeFactory setting: dark on , Switchable to light-on modeIO-I IO-I system in the short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)IO-I Switching thresholdSwitching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-I Switching for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingSwitching voltagemax. 30 V DCSwitching frequencyfSwitching frequencyfSee Table 1, max. 135 HzTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)Ambient temperatureStandard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)Storage temperature-30 70 °C (-22 158 °F)Housing width20 mm	•		Emitter switch-off with +UB or 0 V at pin 4 (emitter)	V19-G-BK5M-P
OutputViscPre-fault indication outputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)CorrSwitching typeFactory setting: dark on , Switchable to light-on modeIO-ISignal outputSwitch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)IO-ISwitching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-ISwitching voltagemax. 30 V DCMasSwitching frequencyfsee Table 1, max. 135 HzIODSwitching frequencyfsee Table 1, max. 6 msIODTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)IODAmbient temperatureStandard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)IODStorage temperature-30 70 °C (-22 158 °F)LinkHousing width20 mmV1-	•		Range input activation from 1.6 m (or 2 m in case of option /35) with +UB or 0 V on pin 2 (emitter)	Female cordset,
Pre-fault indication outputStability Control (SC) 1 PNP, short-circuit protected, reverse polarity protected on pin 2 (receiver)PURSwitching typeFactory setting: dark on , Switchable to light-on modeIO-ISignal outputSwitch output (detection field C/0) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) outputs, short-circuit prot, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)IO-ISwitching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-ISwitching voltagemax. 30 V DCPAGSwitching frequencyfsee Table 1, max. 135 HzIODSwitching frequencyfsee Table 1, max. 6 msIODTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)IODAmbient conditionsStandard : -10 60 °C (-22 140 °F) Option /146: -30 60 °C (-22 140 °F)LGSHousing width20 mmV1-Corr	Output		Teach-In input for programming on pin 8 (receiver)	V19-G-BK2M-P Connection cable
Signal outputSwitch output (detection field C/Q) 1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected on pin 4 (receiver), Height monitoring (H1, H2. H3) 3 push-pull (4 in 1) outputs, short-circuit proof, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)IO-I sep M12Switching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-I sep M12Switching voltagemax. 30 V DCSwitching currentmax. 100 mAVoltage dropUd $\leq 2 V DC$ Switching frequencyf see Table 1, max. 135 HzTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)Ambient temperatureStandard : -10 60 °C (-22 140 °F) Option /146: -30 60 °C (-22 140 °F)Storage temperature-30 70 °C (-22 158 °F)Mechanical specifications Housing width20 mm	•		polarity protected on pin 2 (receiver)	PUR cable
Switching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-I sepSwitching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingIO-I sepSwitching voltagemax. 30 V DCPAQSwitching currentmax. 100 mAPAQVoltage dropU_d≤ 2 V DCSwitching frequencyfsee Table 1, max. 135 HzTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)IOEAmbient temperatureStandard : -10 60 °C (-22 140 °F) Option /146: -30 60 °C (-22 140 °F)LGSStorage temperature-30 70 °C (-22 158 °F)LGSMechanical specificationsV1-V1-Housing width20 mmV1-				IO-Link-Master
short-circuit proof, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)       IO-I         Switching threshold       Factory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking       IO-I         Switching voltage       max. 30 V DC       Mas         Switching current       max. 100 mA       PAG         Voltage drop       U <sub>d</sub> ≤ 2 V DC       FDT         Switching frequency       f       see Table 1, max. 135 Hz       IOD         Switching frequency       f       see Table 1, max. 6 ms       IOD         Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       Soft fram         Ambient conditions       Standard : -10 60 °C (14 140 °F)       IOD         Storage temperature       -30 70 °C (-22 158 °F)       IOD         Mechanical specifications       V1-       V1-         Housing width       20 mm       Cord	Signal output		short-circuit protected, reverse polarity protected on pin 4 (receiver),	IO-Link master, s separate power s M12 plug for sen
Switching thresholdFactory setting: The signal tracking for the threshold value is deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal trackingCon MassSwitching voltagemax. 30 V DCSwitching currentmax. 100 mAVoltage dropUd $\leq 2$ V DCSwitching frequencyfsee Table 1, max. 6 msTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)Ambient conditionsLGS IODAmbient temperatureStandard : -10 60 °C (-22 140 °F) 			short-circuit proof, reverse polarity protected on pin 5, pin 6, pin 7 (receiver)	IO-Link-Master
Switching currentmax. 100 mAPAGVoltage drop $U_d \leq 2 V DC$ FDTSwitching frequencyfsee Table 1, max. 135 HzIODSwitching frequencyfsee Table 1, max. 6 msSoftTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)IODAmbient conditionsStandard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)LGSStorage temperature-30 70 °C (-22 158 °F)LinkMechanical specificationsV1- CorrCorr	,		deactivated, increasing the optical resolution by a maximum of 4 mm; switchable to active signal tracking	Communication Master
Switching currentInax. 100 mAFDTVoltage drop $U_d \leq 2 V DC$ FDTSwitching frequencyfsee Table 1, max. 135 HzIODResponse timesee Table 1, max. 6 msSoftTimer functionOff-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)SoftAmbient conditionsLGSAmbient temperatureStandard : -10 60 °C (-22 140 °F) Option /146: -30 60 °C (-22 140 °F)LGSStorage temperature-30 70 °C (-22 158 °F)LinkMechanical specificationsV1-Housing width20 mmCorr				PACTware 4.1
Switching frequency       f       see Table 1, max. 135 Hz       IOD         Switching frequency       f       see Table 1, max. 6 ms       Soft         Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       Soft         Ambient conditions       Ambient temperature       Standard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)       IOD         Storage temperature       -30 70 °C (-22 158 °F)       Link         Mechanical specifications       V1-         Housing width       20 mm       Corr	•			FDT Framework
Response time       see Table 1, max. 6 ms       IOD         Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       Soft fram         Ambient conditions       IOD       Interview         Ambient temperature       Standard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)       IOD         Storage temperature       -30 70 °C (-22 158 °F)       Link         Mechanical specifications       V1-         Housing width       20 mm       Corr	<b>v</b> ,	-		
Timer function       Off-delay programmable from 0 1.25 s in 5 ms steps (adjustment via IO-Link only)       Soft fram         Ambient conditions       EGS         Ambient temperature       Standard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)       LGS         Storage temperature       -30 70 °C (-22 158 °F)       LGS         Mechanical specifications       V1-         Housing width       20 mm       Corr				IODD Interprete
Ambient conditions     LGS       Ambient temperature     Standard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)     IOD       Storage temperature     -30 70 °C (-22 158 °F)     Link       Mechanical specifications     V1-       Housing width     20 mm	•		Off-delay programmable from 0 1.25 s in 5 ms steps	Software for the i frame application
Ambient temperature         Standard : -10 60 °C (14 140 °F) Option /146: -30 60 °C (-22 140 °F)         IOD           Storage temperature         -30 70 °C (-22 158 °F)         Link           Mechanical specifications         V1-           Housing width         20 mm         Corr	Ambient conditions			
Mechanical specifications     V1-       Housing width     20 mm	Ambient temperature		Option /146: -30 60 °C (-22 140 °F)	LGS IODD IODD for commu
Housing width 20 mm Cor	Storage temperature		-30 70 °C (-22 158 °F)	Link sensors
Housing width 20 mm	•			V1-G-BK0,6M-P
Housing depth 30.5 mm	•			Cordset, LGS25
mod	Housing depth		30.5 mm	modules/WIS 2, 4-pin

Accessones
V19-G-EMV-BK0,3M-PVC-V19-G Double-ended cordset, M12 to M12, with EMC filter, 8-pin, PVC cable
OMH-LGS-01 Attachment aid for light grid series LGS/ LGM
OMH-SLCT-06 Swivel Bracket
OMH-SLCT-01 Quick clamp and adjustment system
OMH-SLCT-03 Mounting bracket including adjustment
OMH-SLCT-04 Mounting bracket including adjustment (with loose bearing)
OMH-SLCT-05 Mounting bracket including adjustment
AA SLCT-01 Profile alignment aid; simplified alignment of the SLCS and SLCT safety light curtains
V1-G-BK2M-PUR-U Female cordset, M12, 4-pin, PUR cable
V1-G-BK5M-PUR-U Female cordset, M12, 4-pin, PUR cable
V1-G-BK10M-PUR-U Female cordset, M12, 4-pin, PUR cable
V1-G-BK15M-PUR-U Female cordset, M12, 4-pin, PUR cable
V19-G-BK10M-PUR-IEC Female cordset, M12, 8-pin, PUR-cable
V19-G-BK2M-PUR-IEC Female cordset, M12, 8-pin, PUR-cable
V19-G-BK5M-PUR-IEC Female cordset, M12, 8-pin, PUR-cable
V19-G-BK2M-PUR-U-V1-G Connection cable, M12 to M12, 8/4-pin, PUR cable
IO-Link-Master02-USB IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
separate power supply, LED indicators, M12 plug for sensor connection IO-Link-Master-USB DTM Communication DTM for use of IO-Link- Master PACTware 4.1 FDT Framework IODD Interpreter DTM Software for the integration of IODDs in a
PACTware 4.1
5
frame application (e. g. PACTware) LGS IODD IODD for communication with LGS-IO- Link sensors V1-G-BK0,6M-PUR-U-V1-G-LGS25T Cordset, LGS25 light grids to ICE modules/WIS 2, M12 to M12, PUR cable,
V1-G-BK0,6M-PUR-U-V1-G-LGS25T Cordset, LGS25 light grids to ICE modules/WIS 2, M12 to M12, PUR cable, 2 4-pin

Refer to "General Notes Relating to Pepperl+Fuchs Product Information". Pepperl+Fuchs Group www.pepperl-fuchs.com

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Housing length L	see Table 1, max. 3160 mm		
Degree of protection	IP67		
Connection	Emitter: 200 mm connecting cable with 4-pin, M12x1 connector Receiver: 200 mm connecting cable with 8-pin, M12 x 1 connector Cable cross section min. 0.25 mm <sup>2</sup> Max. cable length 30 m		
Material			
Housing	extruded aluminum section, Silver anodized		
Optical face	Plastic pane , Polycarbonate		
Mass	see Table 1, max. 1650 g (per profile)		
Compliance with standards and directives			
Directive conformity			
EMC Directive 2004/108/EC	EN 60947-5-2:2007		
Standard conformity			
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007		
Approvals and certificates			
Protection class	III ( IEC 61140 )		
UL approval	cULus Listed		
CCC approval	CCC approval / marking not required for products rated ${\leq}36~\text{V}$		

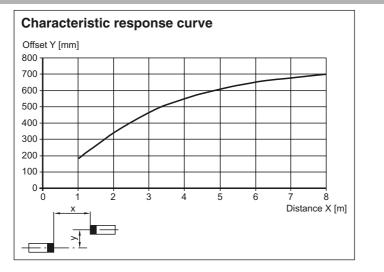
## **Operating principle**

The light grid consists of a transmitter and a receiver, between which is the area to be monitored. The switch command is initiated by the entry or existence of a body/object in the monitoring field.

The modular system design supports a wide range of distances for the lines of light. Optimum implementation of the LGS series light grids for specific application requirements is thus possible.

The system also has 3 switch outputs for height checking. The system is programmed using the integrated touch field or the IO-Link interface.

### **Curves/Diagrams**



## **Additional information**

## Table 1:

#### Switch-on delay, maximum switching frequency and maximum time delay before availability:

und on delay, maximum ownering nequency and maximum time delay before availability.							
118-08-23	Field height [mm]		lelay Q [ms] parameterization		lelay Q [ms] neterization, HQn puts	Max. switching frequency [Hz]	Max. time delay before availability tv [s]
e: 20		typ.	max.	typ.	max.		
ISSU	300	2	4	5	6	136	0.8
Late of	600	3	4	5	7	129	0.8
	900	3	5	5	7	123	0.9
U::JU	1200	3	5	5	7	118	0.9
- 07	1500	3	5	5	8	113	0.9
-00-9	1800	3	5	6	8	109	1.0
2016	2100	3	5	6	9	104	1,0
uale.	2400	3	5	6	9	101	1.0
ase c	2700	3	6	6	9	97	1.1
tele	3000	3	6	6	10	94	1.1

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### Number of beams, housing length and weight:

Field height [mm]	Number of beams	Overall length of the transmitter/receiver unit [mm]	Weight of the transmitter/receiver unit [g]	
300	4	460	300	
600	7	760	450	
900	10	1060	600	
1200	13	1360	750	
1500	16	1660	900	
1800	19	1960	1050	
2100	22	2260	1200	
2400	25	2560	1350	
2700	28	2860	1500	
3000	31	3160	1650	

## **Design and function**

### Safety information

The device must only be operated with Safety Extra Low Voltage (SELV) with safe electrical disconnection. Intervention and repairs must only be carried out by your suppliers.

The system must be serviced and checked regularly.

A clean, soft cloth can be used for cleaning. Aggressive, abrasive cleaning agents that damage the surface must be avoided. The device must not be subjected to hard knocks or vibration.

### Commissioning

Prerequisites

- The transmitter and receiver must be installed and aligned correctly. •
- The electrical connection must be established according to the connection diagram.
- The signal output must respond to object detection.
- If at least one light beam is interrupted, the output remains active as long as the object is detected.

### **Fault location**

- Measure operating voltage
- Check the cabling.
- Check the transmitter and receiver for dirt and clean if necessary.

### **Function displays**

Behind the optics cover on the connection side of the profiles there is a green Power ON operating indicator LED and a yellow status display LED.

### Transmitter

Function	Diagnostic description	
Green operating indicator LED lights up statically	Power-On	
Green operating indicator LED is dark and yellow status indi- cator flashes	Power save mode	
Yellow status indicator LED is dark	Transmitter with low transmitting power	
Yellow status indicator LED lights up statically	Transmitter with high transmitting power	
Yellow status indicator LED flashes quickly (approx. 8 Hz)	Error condition	
Yellow status indicator LED light changes for short time	Test input is activated	

#### Receiver

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Function	Diagnostic description		
Green operating indicator LED lights up statically	Power-On		
Green operating indicator LED is dark	Power save mode		
Green operating indicator LED flashes with brief interruption	IO-Link mode active, parameterisation only possible via IO- Link		
Green operating indicator LED flashes (4 Hz)	Error condition: Short circuit at the outputs		
Yellow status indicator LED lights up statically	Detection field interrupted		
Yellow status indicator LED is dark	Detection field is enabled.		
Yellow status indicator LED flashes (approx. 4 Hz)	Insufficient function reserve		
Yellow status indicator LED flashes quickly (approx. 8 Hz)	Error condition: Incorrect signal measurement		

## **Resolution and beam clearance**



The mechanical beam clearance determines the smallest detectable object size. Crossing the light beams increases the resolution of the light grid.

The devices are delivered without programmed height checking. The beam is crossed three times.

### Resolution of the crossed beam arrangement

If three-way crossing of the beams is programmed, the resolution increases. For a three-way crossing, this means that the increased resolution is offered after 25% of the transmitter range or receiver range. It must therefore be ensured that all objects pass transmitters or receivers with this clearance.

