

# gSENS LWG 120

## Compact length / angle sensor for mobile machinery

### Applications

- Mobile Cranes
- Telehandlers
- Boom Trucks
- Knuckle Boom Cranes

### Special Features

- Lengths up to 15m
- Redundant length and angle outputs
- Compensation for cross sensitivity and temperature coefficient
- Configurable vibration suppression parameters for angle
- MEMS technology for angle measurement and Hall Effect technology for length measurement
- Supply line is protected against reversed polarity and load dump



gSENS LWG 120

### Description

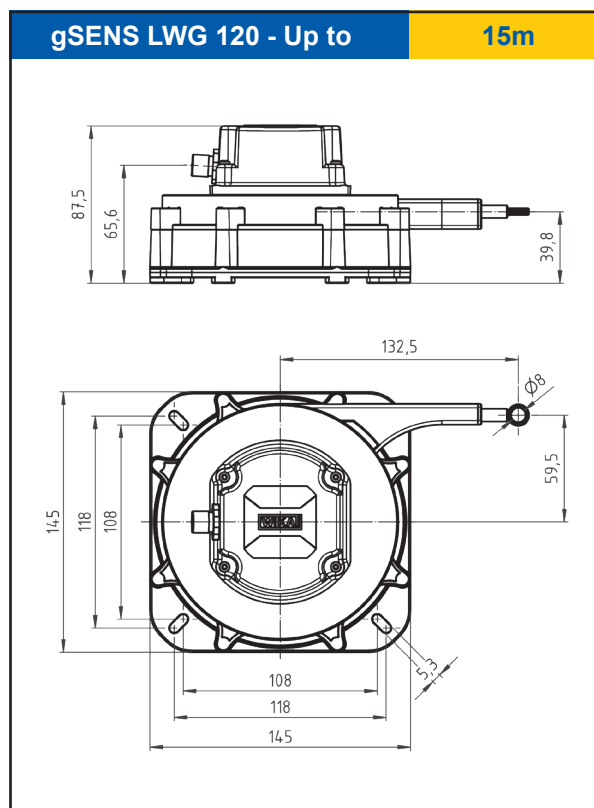
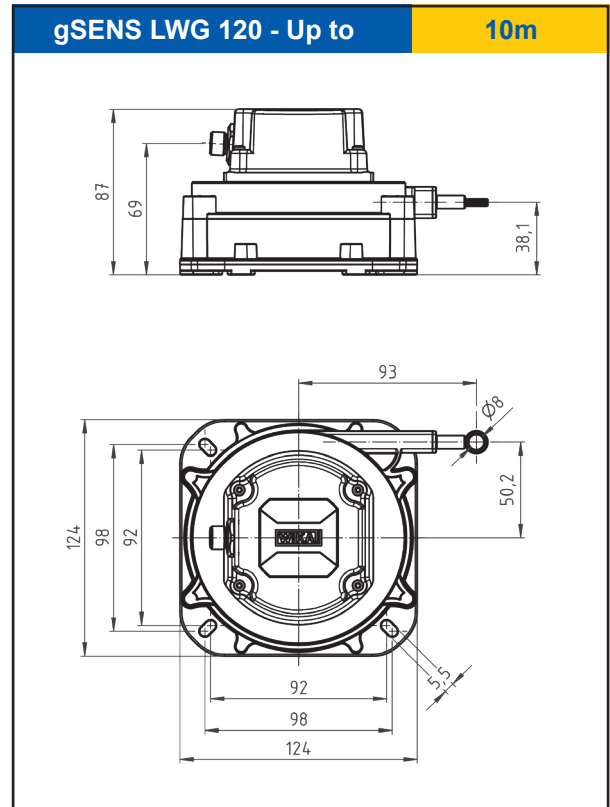
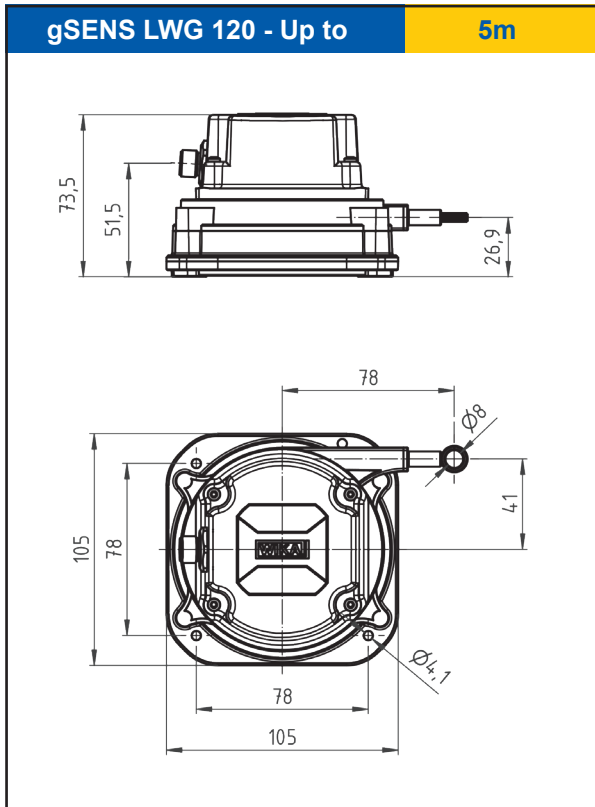
gSENS LWG 120 length / angle sensors reliably measure telescopic lengths of up to 15m and extended boom angles between  $-180^{\circ}$  and  $+180^{\circ}$ . Their compact design guarantees easy installation on a variety of machine types. gSENS LWG 120 sensors use CAN communication as output signals.

This length / angle sensor ensures highest operational reliability. With its sturdy housing, shock / vibration resistance acc. to IEC 60068 and electromagnetic compatibility acc. to IEC 61000, the robust gSENS LWG 120 withstands the harshest environmental conditions.

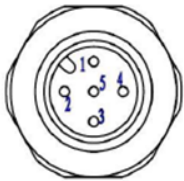
## Technical Specifications

Product Series	LWG 120 - 5m	LWG 120 - 10m	LWG 120 - 15m
Operating voltage	8...36V DC		
Output signal	CANopen		
Hall-off speed	1m/s		
Length measurement range	0...5m	0...10m	0...15m
Length accuracy (at 25°C)	±0.5%FS		
Length repeatability	±0.1%FS		
Inclinometer measurement range	-180°...+180°		
Inclinometer accuracy (at 25°C)	±0.3°		
Inclinometer temperature drift	±0.01 °°C		
Operation temperature	-40°C...+85°C		
Electrical connection	Male flange connector M12, 5-Pin		
Housing	Aluminum + PC		
Protection rating	IP66/67		
Shock resistance	<b>IEC 60068-2-27</b> 40g/11ms, half-sine wave, three axial directions, 100 times each		
Vibration resistance	<b>IEC 60068-2-6 Sinusoidal Vibration</b> 10...500Hz, 10g, up and down: 4h, left and right: 2h, front and back: 2h, 8 hours in total		
Electromagnetic compatibility	acc. to IEC 61000-6-2/ IEC 61000-6-4		

## Dimensions



## Pin Assignment

Male Flange Connector M12 5-Pin	Pin no.	Assignment
	1	Shield
	2	Power
	3	GND
	4	CAN_H
	5	CAN_L

## Product Code Description

LWG type	Part number	Description	Length	Angle	Output
LG 120/3050	83902923	gSENS LG 120/3050-C1/01-005/005-GL -00	5m	no	CAN
LG 120/3100	83902927	gSENS LG 120/3100-C1/01-010/010-GL -00	10m	no	CAN
LG 120/3150	83902928	gSENS LG 120/3150-C1/01-015/015-GL -00	15m	no	CAN
LWG 120/3050	83902929	gSENS LWG 120/3050-C1/01-005/005-GL -00	5m	yes	CAN
LWG 120/3100	83902930	gSENS LWG 120/3100-C1/01-010/010-GL -00	10m	yes	CAN
LWG 120/3150	83902931	gSENS LWG 120/3150-C1/01-015/015-GL -00	15m	yes	CAN