

GS550-CSA/ATEX-CE

GS550 for Hazardous Locations

Features:

- All stainless steel enclosure AISI-304
- Weather resistant
- 2x20 characters text display with backlight
- 16,000 events datalogger
- USB port for datalogger download or firmware / load charts update
- Three internal mosfet solid-state relays, 1 amp each
- Units: metric and U.S. (kg, lbs, metric tons, long tons, short tons)
- Compatible with standard two-way LSI GS radio network
- CSA Class 1 division 2 certified
or
ATEX Zone 2 (self declaration)



Applications:

- Lattice crane rated capacity indicator
- Hydraulic crane rated capacity indicator
- Tens of thousands of load charts could be programmed in the display.
- Screen layout adjusts itself based on the sensors list
- Wind speed & wind gust monitoring

General Description:

The GS550 system includes the cabin mounted GS550 radio display and compatible crane mounted sensors. The GS550 creates a two-way radio network with the sensors to bring required lift data to the operator. Hoist load, boom and jib angles, boom length, wind speed and pending two block can be detected and then indicated to the operator in real time. Working load radius can be calculated and compared to a rated capacity chart (if programmed). Furthermore the GS550 can be programmed to generate warnings, alarms and lockout commands, all triggered by adjustable thresholds and limits. All these events can be recorded by the data logger with a time and date stamp. The exact operational function of the GS550 system depends on the sensor configuration used and the rated capacity charts programmed (where applicable). The GS550 includes a USB port to facilitate software and chart updates and data logger downloads using a USB mass storage device (USB key).

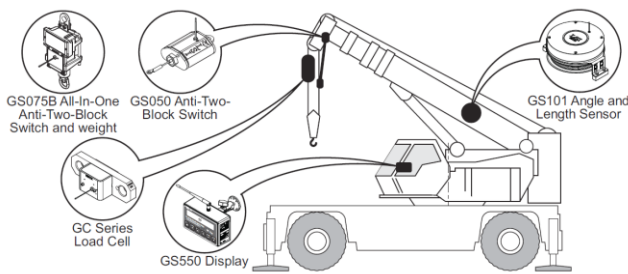


Figure: application example

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Ordering information

Model	Description
GS550-CSA	Class 1 division 2
GS550-ATEX-CE	ATEX Zone 2 (self declaration)
LB006	Display cable for power and lockout wires, 6 feet long.
GM550	User manual
GM550U	Universal quick reference guide
TA008	Field replaceable antenna

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Specifications

Parameter	Test Condition	Min	Typ	Max	Unit
Input voltage		10	12/24	30	V
Current requirements*					
Backlight 'on'		0.3	0.4	0.5	A
Backlight 'off'		0.1	0.12	0.15	A
* If lockout wires are used, the current consumed on those wires must be added.					
Output lockouts					
White wire				1.0	A
Green wire				1.0	A
Orange wire				1.0	A
Blue wire	Available in option only			1.0	A
Other parameters					
Radio transmission power	Transmitting		0.025 13		Watts dBm
Display weight			5.7 2.6		Lbs kg

Absolute maximum ratings

Parameter	Test Condition	Min	Typ	Max	Unit
Input voltage		10		36	V
Temperature range	Operating	-30		+60	°C
Temperature range	Storage	-50		+70	°C

Certifications

FCC : parts 15.247, 15.205, 15.207

CE compliance :

ETSI 300-220-1, 300-220-3 (Radio),

EN 301 489-3 (EMC)

EN 61010-1 (Safety)

EN 61000-4-3, EN 61000-4-6 (Immunity)

Industry Canada: RSS-210

Class 1 division 2:

CSA C22.2 No.0.4.M2004, No.0-M1991, No.0142,M1987, No0.157-M1992, No.213-M1987,

UL506, UL913, UL1604

ATEX zone 2 :

EN60079-0, EN60079-11, EN60079-26

EN 60079-15 : Special Conditions of Safe Use:

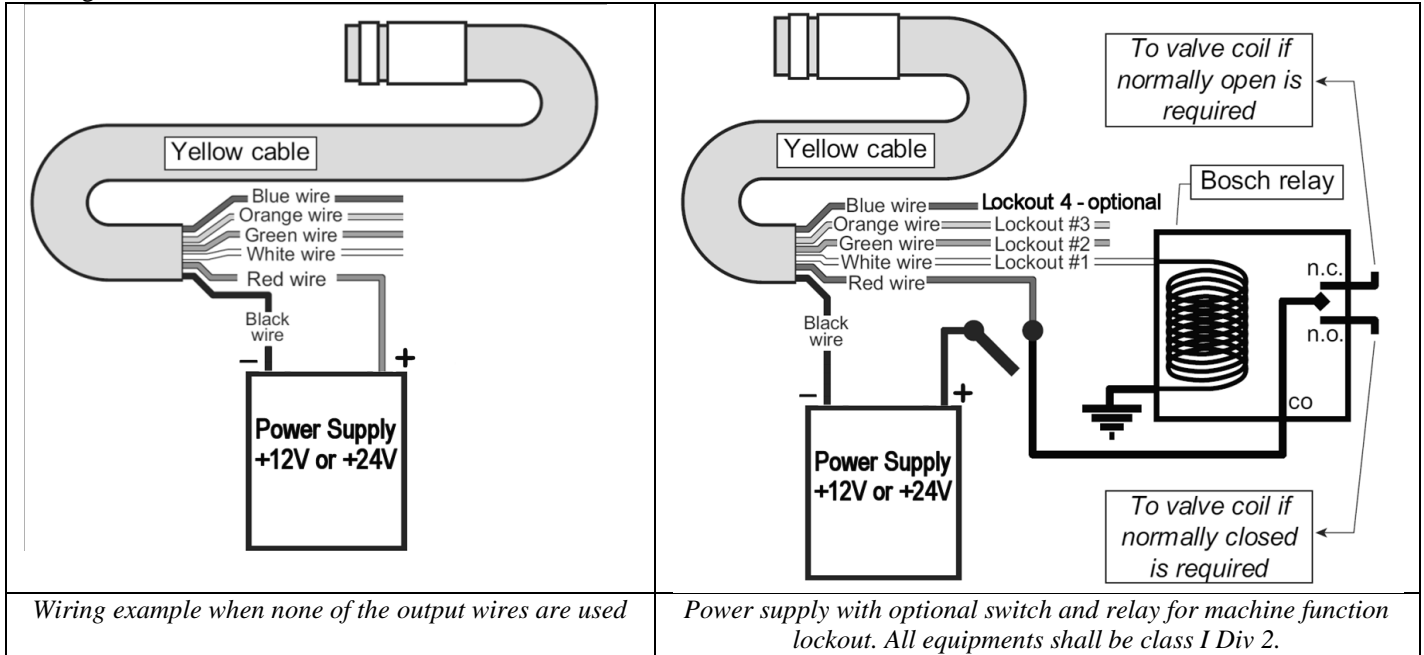
WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

WARNING: EQUIPMENT SHALL ONLY BE INSTALLED IN LOCATIONS PROVIDING ADEQUATE PROTECTION FROM IMPACT AND EXTERNAL DAMAGE

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Applications details

Wiring



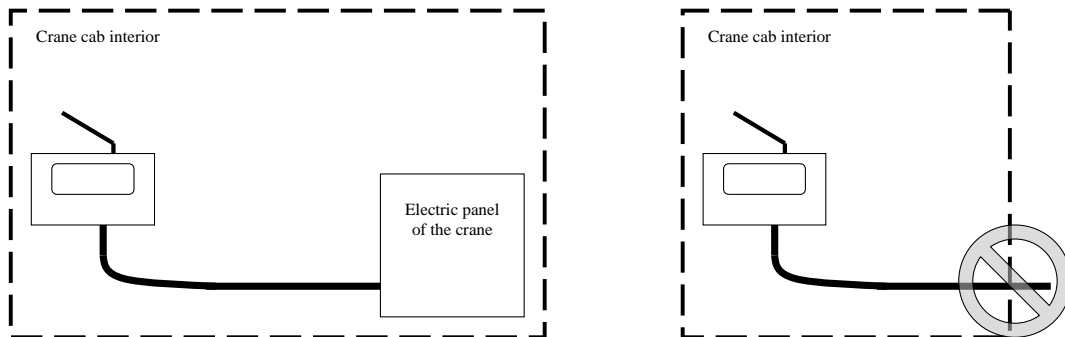
Lockout control is programmed in the 'lockout' menu. The GS550 can be programmed to generate alarms and lockouts for almost all programmed limits and two-block. Furthermore, warnings are generated when approaching programmed load limits and rated capacity (when applicable). By default the lockout wires carry crane power supply voltage as long as the display is in safe condition. Polarity of the output could be inverted in the lockout control menu.

List of possible lockout conditions:

- Maximum wind speed, Minimum angle, Maximum angle, Overload, Maximum radius, Maximum length, Two-block, Maximum wind gust, Maximum rope payout, Minimum slew (swing), Maximum slew (swing), Maximum tip height, Maximum imbalance factor, Minimum slack rope, Minimum list angle, Maximum list angle, Minimum trim angle, Maximum trim angle.

When work-area definition is used, a warning signal is available on the orange lockout wire to slow down swing movement .

Installation

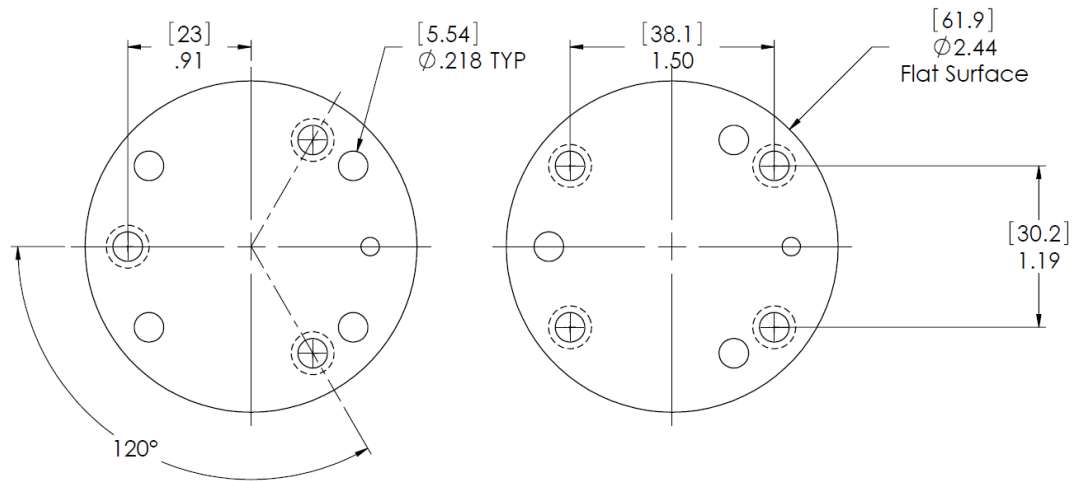
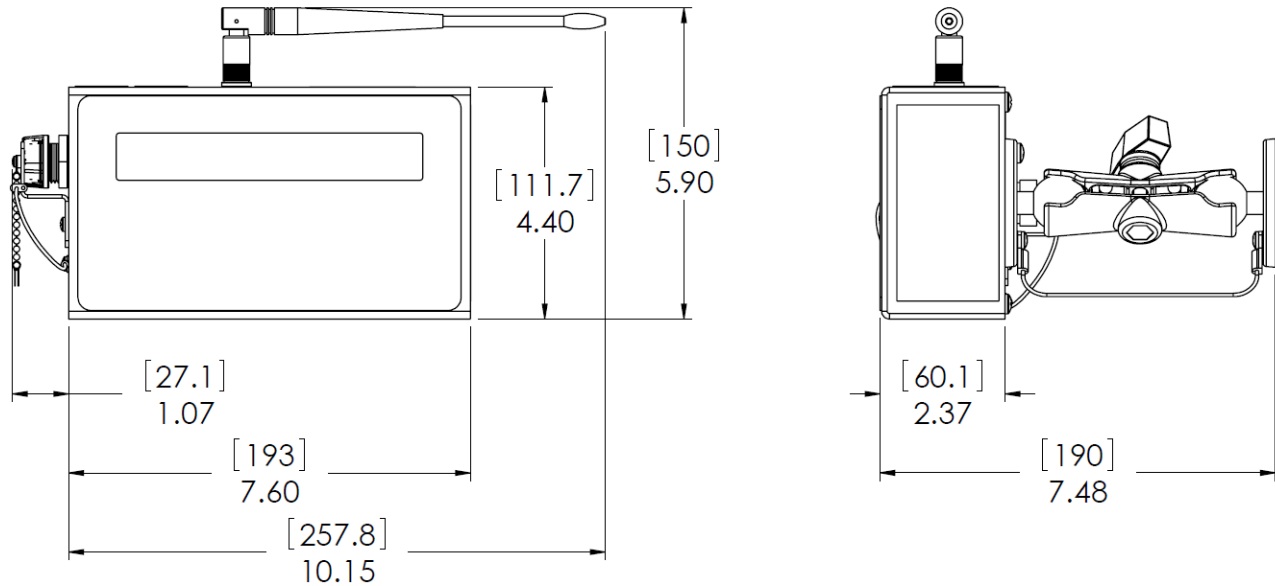


Warning: Cables for this product must be connected inside a protected area (ex: crane cab). Cable must be routed to protect wiring from being damaged during normal use.

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Dimensions

The mounting bracket requires a flat surface of at least 2.5 inches in diameter on both sides and where the back of the surface is accessible in order to tighten the nuts. Drill 1/4 inch boltholes through the mounting surface with a 1/4 inch bit following either three or four holes configuration. Use #10 or M5 screws.



Mounting bracket hole pattern (not to scale)

Units are in inches [millimeters]