

Gigasense CSM Crane Safety Monitor



Gigasense CSM Crane Safety Monitor for your safety and best life cycle economy.

For all industries operating in harsh environment, where safety and clarity is crucial in the daily work, Gigasense Crane Safety Monitor is much appreciated.

It is designed to give optimal safety in heavy lifting operations and for continuous work in the toughest of industries.

With different options of load cell input and a modular design for as many inputs as needed, Gigasense Crane Safety Monitor solves all your overload protection needs, and has many more valuable functions.

Gigasense Crane Safety Monitor is maintenance free and all settings and programming are made from factory.

CSM is the overload protection standard by worldwide Steel and Aluminum works.

GIGAsense

Gigasense products within Force Measurement and Crane Safety are well known high quality products, built from many years' experience and used by leading heavy duty industry around the world.

Gigasense products meet the highest demands of performance level requirements.

We are represented by selected local partners in more than 30 countries on six continents.

CSM Crane Safety Monitor



This well-proven CSM Crane Safety Monitor is delivered with all settings made from factory, providing you with a cost efficient system with a low life time cost.

For the robust, fail-safe construction, CSM is the preferred electronic overload protection system by prominent Steel- and Aluminium works.

The CSM modularity gives you the possibility to choose your desired number of inputs and outputs. CSM is built for amplified 4-20 mA transmitter signals. The outputs are potential free relays, RS485, 4-20 mA, Profibus (option) and USB (option).

Technical Data

Operating Voltage:
85-264 V AC, 47-440 Hz or
120-370 VDC.

ENCLOSURE
Dimensions 380x380x210 mm.

PROTECTION CLASS
IP65.

TEMPERATURE RANGE
-20°C to +70°C.

INPUT FORCE TRANSMITTERS
Current signal, 4-20 mA.

LIMIT SETTINGS
Two limit settings for each relay.
10 relays per PLC.

Switching capacity 6 A, 250 VAC.
Higher switching capacity can be
achieved by installing contactors as
an option.

RECORDING OF HOISTING MOVEMENT
Two Inputs: low and high speed.
Voltages: 12 VDC, 24 VDC, 115
VAC or 230 VAC.

OUTPUT
RS 485 serial, can be used for
Remote Display or for other
purposes.

ANALOGUE OUTPUT
4 - 20 mA, additional as option.
0-10 V as option.

DISPLAY (BUILT IN)
LCD, 2 rows each with 16
alphanumeric characters.

SETTING OF SWITCH LEVELS/
PROGRAMMING
Simply with 6 push buttons at panel.

Modular Design and Multi-functions

The standard CSM version has ten relay outputs, one 4 - 20 mA output and an RS485 interface suitable for a large format display. In the implementation consisting of one PLC, up to four force transmitters can be connected. Load summation, load differences and alarm limits, as well as certain alarm settings for container handling, slanting load and the like are easily set.

Via the standard 4-20 mA output and the RS485 interface, you can show load on one or even two large format displays or hand held units. Thanks to the CSM modular design, further 4-20mA outputs can be added, if needed.

With Profibus, operating data is transferred to other systems, such as your laptop or different brands of crane electronics.

CSM provides excellent flexibility in hardware and software. As many PLC modules as required can be added. More lifts, that is more input from further force transmitters, can be added. With this modularity, there is no need to buy a completely new system when conditions change.

The back lit integrated display of the module is easy to read, and you reach both logged data and limit values by push buttons.

Load Time Registration made easy

Registration of load optimizes and often prolongs the life time of the crane. With the CSM installed, manual load time registering is no longer necessary. CSM thereby saves precious man hours.

CSM Load Time Registration is made according to the European standard FEM9511 and FEM9755.

With CSM, you easily follow up on events during operation, such as overload, misuse, time left to service and more. By push buttons all data is accessible. CSM will help you find out if some personnel requires more training on the connected cranes. Your CSM will monitor load, overload and will give alarms at preset levels. These alarms are also saved to look up after operation.

Process-crane operators, who normally collect all data from the crane, will enjoy the data storage information including lifting time, load, number of lifts, peak load value, total lifting time and much more information which is automatically stored by this advanced electronic overload system.

As an option, data can be downloaded via USB.



User Friendly Operation

CSM provides a very user friendly operation. Re-programming, change of alarm limits and readout of values is always possible. No tools nor PC is needed for readout or change of settings; the handling of Gigasense Crane Safety Monitor is very straight forward.

The CSM functions are also made specifically for cranes; thereby you will not need to scroll through many irrelevant settings nor features, that you do not need.

Fail Safe and Robust

In Gigasense Crane Safety Monitor, you make all settings by using only six well defined push buttons. All data is easily accessible, but for change of settings, you must know the safety code.

CSM will notice if an alarm value is out of range and acknowledge you. This product will not allow strange settings; CSM is a fail safe overload protection system.

With Safety Protection class IP65, CSM works in dusty and moist environment as well as outside. The operation temperature range is the full -20°C to $+70^{\circ}\text{C}$. The CSM withstands heat and intense, violent vibrations.

Gigasense Crane Safety Monitor has been in operation in heavy duty industry since 1998; the first installed systems are still in operation.

Cost efficiency at its best

The Mean Time To Dangerous Failure for Gigasense Crane Safety Monitor is over 90 years and the system is designed to be entirely maintenance free.

When you purchase force transmitters, amplifiers, large format displays and more from Gigasense, we take responsibility for the complete system and all components are calibrated and tested together.

Gigasense CSM is delivered programmed and calibrated, ready for installation.

The modular design gives you options such as Profibus DP, USB-port and more; CSM follows your requirements and will grow with your needs.

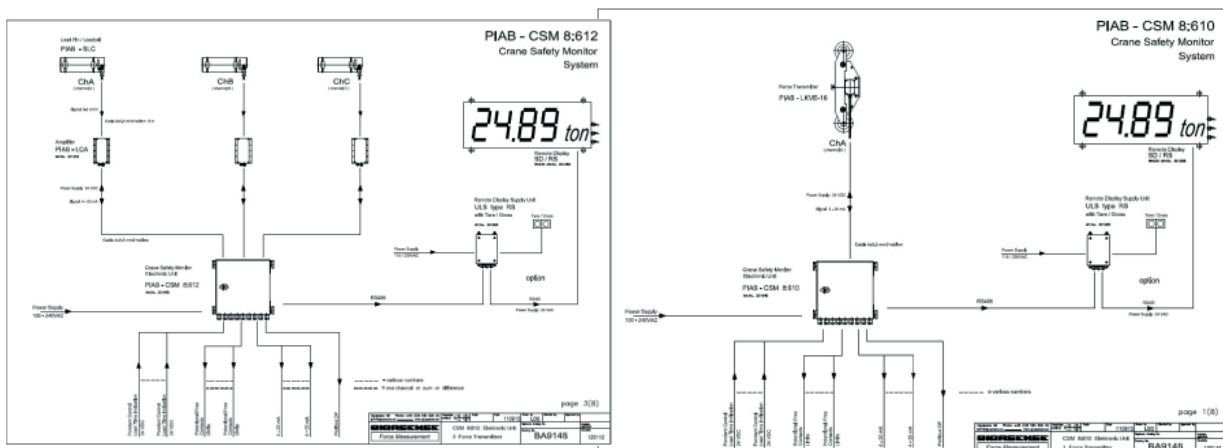


Redundant Gigasense Crane Safety system , PLd, Cat 3

Gigasense herewith declares that the machinery CSM 8:64x Crane Safety Monitor fulfills Cat 3 and Performance Level d. (PLd) as a redundant, electronic overload protection for lifting operations. CSM electronic overload protection for redundant use, is in conformity with all relevant provisions of ordinances in Machinery directive 2006/42/EC, and ISO EN 13849-1/2.

CSM adapted to your choice, also for special applications

Gigasense CSM is used in a wide variety of applications. We connect CSM to Angle Transducers in cranes, Container Handling Cranes, for the safe transport of molten metal and more.





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