System GHC-1

Load Display and Protection for Gantry Cranes

Programmable overload protection for:

- Bridge Cranes, Gantry Cranes
- Container Cranes, STS Cranes
- Portal Cranes
- Harbor Cranes with booms
- Straddle Carriers, RTGs
- Forklifts
- General applications in harbor- and construction industries

GHC-1 is the most economic State-of-the-Art system used for overload protection on cranes and other lifting equipment. It is also suitable for a number of other applications in rugged conditions, including construction and harbor equipment.
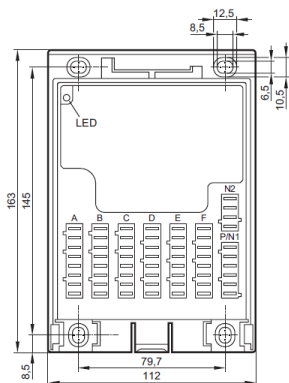
The GHC-1 system consists of sensors (forces, angles) and a control (PLC) with or without multi-colour graphical display which are both programmed in World-Standard IEC 61131-3 language CoDESys ®.

GHC-1 fulfils its safety function by activating or shutting down crane functions via digital outputs. It can be linked directly to the crane controls and other systems by CANBUS or by optional analogue outputs with 4…20 mA output current.
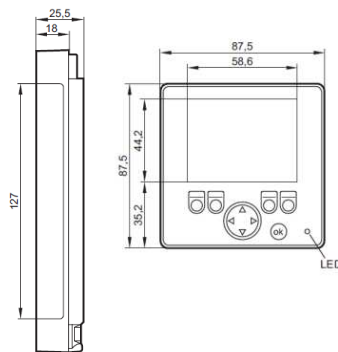
GHC-1 comes as a plug-and-play solution and can be calibrated without any special tools simply on the screen in a very short time.
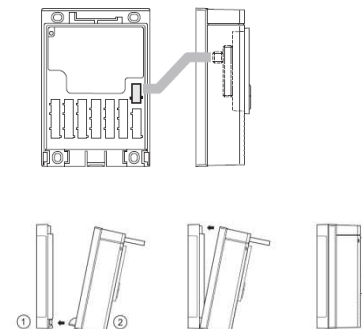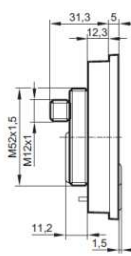
Features:

- Analogue and digital Load display
- Tare function
- Alarm function on screen
- Passcode protected Menu for
  - Calibration of sensors
  - Fine adjustment of analogue outputs (optional)
  - User defined Cutout limits setting
- 8 digital outputs to react on critical crane conditions
  - Overload cutout
  - Overload prewarning
  - Underload slackrope
  - Load unbalance
  - Single line overload
- 4 analogue inputs (4…20 mA) for sensors; Choice of sensors acc. to Cranetype
- 6 digital inputs for general purpose or incremental counters
- 4 PWM outputs (part of the 8 digital outputs)
- Converters available to perform analogue outputs 4…20 mA out of the PWM signals
- 2 CANBUS interfaces

Basic Control ifm CR 0401   Basic Display ifm CR 0451   Control&Control combined in EC 0402 housing

Technical Data

Supply Voltage	10….30 Volts DC
Current Consumption w/o loads on digital outputs	0,4 A max
Output Current digital Outputs	1..4 A dependend on terminal
Resolution analogue inputs	12 bit
Temperature range console/control	-20°…+70°C / -40°…+85°C
Protection class	IP 54 in housing, both units completely sealed, only CR0401 terminals are free
L x H x W combined in housing EC 0402	160 x 110 x 80 mm