

# SAFETY-BOY

## FUNCTIONAL SAFETY CERTIFIED LOAD LIMITER ELECTRONICS

Overload protection electronics for hoisting devices with certification for performance level PL d according to EN ISO 13849-1.



SAFETY-BOY



### Features

- o 2 redundant channels with constant comparing of both signals
- o PFHd 4.29 x 10E-08
- o Load limiter electronics certified for functional safety up to PL d Category 3, DC: medium
- o Display of hoisted load and input signal
- o Monitoring system of the integrity of load cells with continuous comparison of both channels and internal "watchdog" for the electronics
- o Analogue output: 2 x 4...20 mA

**Application(s)** SENSY's SAFETY-BOY is perfectly designed for the following applications:

- Overload protection of hoist for PL d cat. 3 requirement.

### Function(s)

- Internal survey system of load cell and electronics
- Calibration with push buttons and display
- With pre-alarm and overload set-points on each channels
- Protection avoiding programming by unauthorised users
- Protection against inverted polarity of power supply
- Self-resetting fuse

| Specifications            | SAFETY-BOY   | SAFETY-BOY24                                       | SAFETY-BOY OEM                                |         |
|---------------------------|--|--|---|---------|
| Type                      | Load limiter with IP65 housing and AC power supply | Load limiter with IP65 housing and DC power supply | Load limiter without housing (DIN rail mount) | -       |
| Input range               | Up to 3.9 mV/V                                     | Up to 3.9 mV/V                                     | Up to 3.9 mV/V                                | -       |
| Sensor excitation         | 4 VDC  | 4 VDC  | 4 VDC   | -       |
| Display                   | 4 digits red LED, 7 mm high                        | 4 digits red LED, 7 mm high                        | 4 digits red LED, 7 mm high                   | -       |
| Accuracy                  | 0.03   | 0.03   | 0.03  | % F.S.* |
| Low pass filter           | Selectable 0.25...3                                | Selectable 0.25...3                                | Selectable 0.25...3                           | Hz      |
| Internal resolution       | 24 bit   | 24 bit   | 24 bit  | -       |
| Service temperature range | -10...+50**  | -10...+50**  | -10...+50**                                   | °C      |
| Storage temperature range | -20...+60  | -20...+60  | -20...+60                                     | °C      |
| Power supply              | 100...240 VAC                                      | 10...30 VDC  | 10...30 VDC                                   | -       |
| Consumption               | 10 W   | 6 W  | 6 W   | -       |
| Qty of relay              | 4 cabled by 2                                      | 4 cabled by 2                                      | 4 cabled by 2                                 | -       |
| Relay type                | "Form C"- Pre-cabled                               | "Form C"- Pre-cabled                               | "Form C"- Pre-cabled                          | -       |
| Contact rating            | 2 A @ 48 VAC / 24 VDC ( resistive load)            | 2 A @ 48 VAC / 24 VDC (resistive load)             | 2 A @ 48 VAC / 24 VDC (resistive load)        | -       |
| Dimensions                | 300 x 200 x 120                                    | 300 x 200 x 120                                    | 136 (171 with analogue output) x 125 x 57     | mm      |
| IP rating                 | IP65   | IP65   | -   | -       |

\*F.S. : Full Scale.

\*\* : max 85% humidity non-condensing.

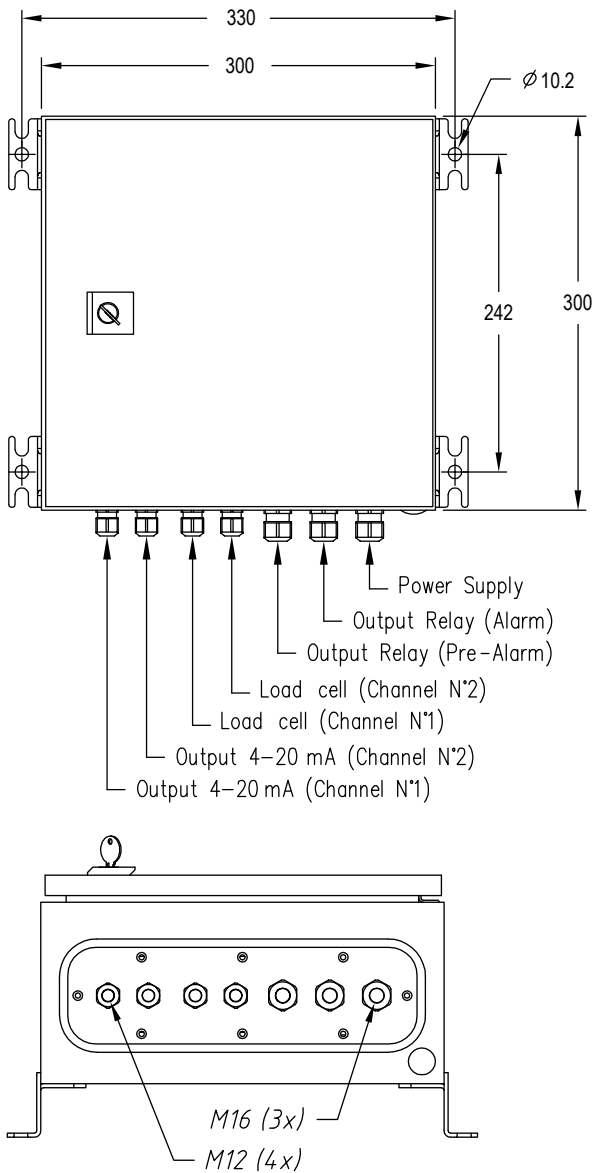
Specifications subject to change without notice.



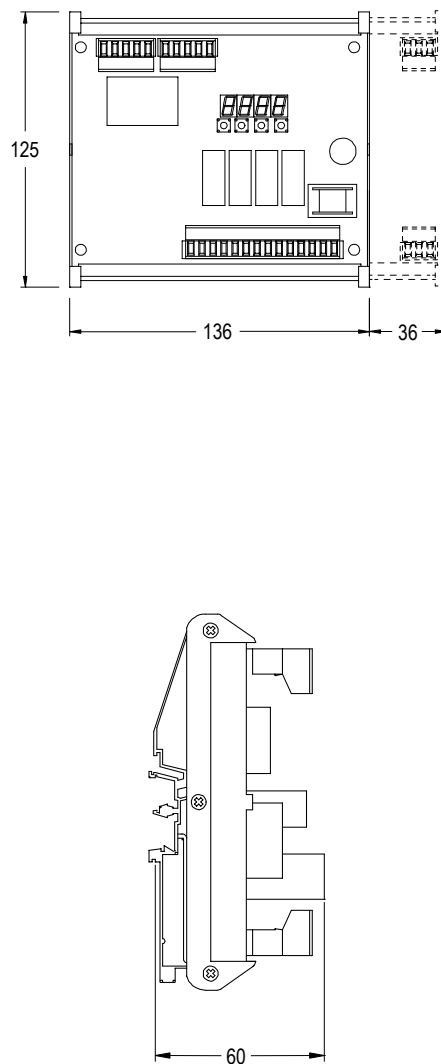
ISO 9001 certified

SAFETY-BOY > STANDARD DIMENSIONS

SAFETY-BOY

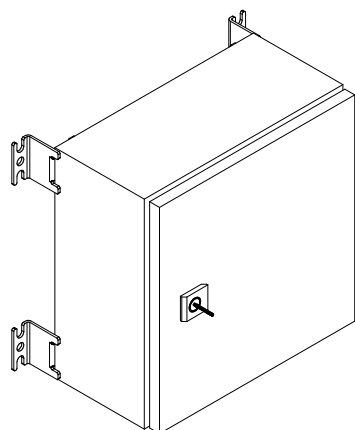


SAFETY-BOY OEM



Dimensions in mm

Other view



Terminals

On request