Intelligent safety electronic

PLe acc. to DIN EN ISO 13849-1

DGUV Test
ET 13086
Sicherheit geprüft
tested safety

Description

The ELMS system is a multifunctional, modular upgradeable, configurable safety system and meets the requirements up to PL e. The electronic is used for danger prevention on hoists. It protects both the operator and the equipment itself. The system consists of a central module on which modules can be attached to add more functions.

The modules are connected by a redundant standart top hat rail bus. The electronic includes a wide range of safety digital and analogue inputs, secure semiconductor- as well as contact outputs. The status of the in- and outputs, supply voltage and other diagnostic tasks is displayed on an LED matrix.

Features

- 8 x safety analogue_in 4…20mA
- 8 x safety dig_input
- 4 x analogue output DC 0 … 10 V
- 4 x analogue output 4 … 20 mA
- 2 x safety relay
- 6 x safety positive-switching (high side)
  the high side outputs come with an overload and short circuit protection
- 1 x USB interface for data transfer
- Expansion connector for additional modules
- For installation in electrical cabinet with > IP 54
- Safety functions acc. to
  DIN EN 13849-1:2008-12 (Cat. 4, PL e)
- Optional available with Profi Bus,
  Can-Bus, Ethernet

Applications

- Harbour cranes (RTG, STS)
- Ship- and Offshore cranes
- Hoisting devices

Model: ELMS1

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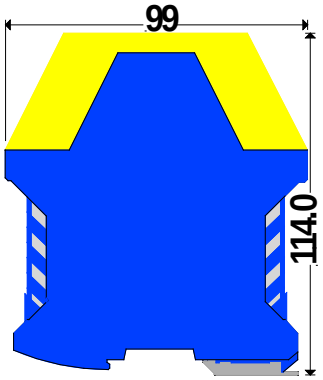
Technical data

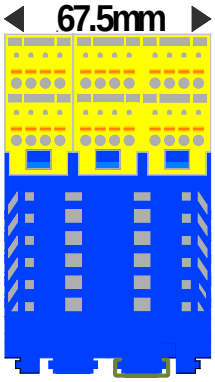
Model	ELMS1
Operating voltage U_B on A1 and A2 on central module	24V DC for all module, tolerance -15% + 10%
Ripple U_B	max. 10 %
Input current at A1 of the central modules	≤ 4A / internal fuse: 6A
Operating temperature	-10 … +60°C
Storage temperature	-40 … +85°C
Vibration resistance 3 axis	Sinus 10–55Hz, 0.35mm, 10 cycles, 1 octave /min
Max. cable cross section	0.2 upt to 1.5mm² (AWG24-16)
Housing material	Polyamide PA unreinforced
Protection type	Housing and clamps: IP20, on-site: minimal IP 54
Voltage at the inputs	24V DC –15%, + 10%
Input current consumption	maximal 4.0mA
ELMS1 (other module)	with Profi Bus, Can-Bus, Ethernet

Dimensions (in mm)

Width and height



Central module



Others

Subject of technical changes