

0656 FlexLim Safe Overload Electronics



Description

The BROSA overload electronics 0656 FlexLim Safe typically records 8 different sensor signals, e.g. force, angle or pressure. These are evaluated and scaled in the overload electronics and sent to the individual software modules. A detailed functional description of the overload electronics can be found in the software description. Typically, the following functions are monitored on a container crane:

- Crane and spreader overload
- Corner loads
- Eccentricity
- Minimum load (spreader landed / slack rope)

Output of crane information and status reports takes place via a bidirectional interface via PROFIBUS, PROFINET (PROFIsafe) or CANopen (CANopen safety). A safety-related hardware output, 8 digital inputs and 8 digital outputs are also available. A load spectrum counter according to guidelines FEM 9.511 and FEM 9.755 is also available.

The crane status is visualised via a graphic display. The 0656 FlexLim Safe overload electronics is supplied in a robust, vibration-proof housing with IP67 / IP69k protection. It can be installed either in a control cabinet or externally. A customer-specific connection via a terminal strip and various interface modules is optional.

The 0656 FlexLim Safe overload electronics fulfilled performance level d, category 2 according to EN 13849 and SIL 2 in accordance with EN 61508.



Overload electronics, type 0656

Technical data

Description	0656 FlexLim Safe Overload Electronics
Input signals	typ. 8 × CANopen (Safety)
Supply voltage	24V DC (10 ... 30V DC)
Analog outputs	2 × 4 ... 20mA
Digital inputs	8 × 24V
Digital outputs	8 × Switching capacity type 24V / 500mA 1 × Safety output type 24V / 500mA
Interfaces	1 × PROFINET IO (PROFIsafe) Slave
	1 × PROFIBUS DP Slave
	1 × CANopen (Safety) Slave
	1 × RS 485
	1 × RS 232
System configuration	via RS 232-USB converter with PC, terminal program
Housing	Cinch MODICE SE
Electrical connection	Connector with crimp contacts (0.5mm ²)
Protection class	IP67 / IP69k
Operating temperature	- 40 ... + 80°C
Electrical protection classes	Reverse polarity protection, short-circuit protection
Vibration resistance	14g
Shock resistance	10g
EMC	CISPR 25 / EN 55025
	DIN ISO 11452-2
	DIN ISO 11452-4
	DIN ISO 11452-5
	DIN 40839 T1 / ISO7637-2
	EN 61000-4-2
	EN 61000-4-4

Display

The 4.3" or 7" display is the perfect complement to the BROSA overload electronics. All relevant data and operating states are displayed here.



Housing Dimensions

Display screen	4,3" Display	7" Display
L × W × H	48 × 142 × 98 mm	56 × 224 × 145 mm
Resolution	480 × 272 px (WQVGA), 15:9	800 × 480 px (WQVGA), 15:9
Connection	CANopen	CANopen
Supply voltage	9...36 V DC	9...36 V DC
Operating temperature	- 30 ... + 65°C	- 30 ... + 65°C
Protection class	IP 65 / 66	IP 65 / 66

Services

Alternatively, the following services can be ordered from BROSA:

Accompanying commissioning on site

- On-site commissioning support
- Calibration of the system with provided test weights
- Preparation of acceptance protocol

Other services on request.



ISO 9001
ISO 14001