

Technical data sheet

Load monitoring · LOCC-Box-Net

Electronic load monitoring up to DC 10 A, with communication
Single-channel design, programmable, Adjustable current range: DC 1 A – 10 A
Adjustable characteristics, fast, medium, slow 1, -2, -3



Identification

| | |
|----------|------------------------|
| Type | LOCC-Box-Net 7-6410 |
| Part No. | 716410 |

Product version

| | |
|-------------------|-----|
| Hardware revision | 2.0 |
| Software version | 2.6 |
| Datasheet version | 04 |

Input

| | |
|----------------------------|---------------------------------|
| Type of function | 1-channel 1 pin switching |
| Rated voltage U_N | DC 12/24 V |
| Operation voltage range | DC 10–30 V |
| Rated current I_N | DC 10 A |
| Supply current | DC 40 A over Cu-rails 10 × 3 mm |
| Reverse voltage protection | internal electronics |
| Connection type input | screwless contact slide |

Control input (Set / Reset)

| | |
|--------------|------------------------------------------|
| Signal level | DC 12/24 V acc. to IEC 61131-2 |
| OFF | Pulse with falling edge >100 ms, <800 ms |
| ON | Pulse with falling edge > 1 s |

Output

| | |
|-------------------|--------|
| Switching element | MOSFET |
|-------------------|--------|

United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU
Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2
www.lutze.com • sales.gb@lutze.co.uk

Germany: Friedrich Lütze GmbH

Postfach 12 24 (PLZ 71366) • Bruckwiesenstraße 17-19 • D-71384 Weinstadt
Tel. +49 (0)7151 6053-0 • Fax +49 (0)7151 6053-277(-288)
www.luetze.de • info@luetze.de

26.09.2023 • Subject to technical modification

Part No. [716410](#) • Datasheet version: 04

page 1 of 6

Technical data sheet

Load monitoring · LOCC-Box-Net

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|
| Output current | max. DC 10 A |
| Voltage drop | max. 215 mV (10 A) |
| Status display output | LED green: operating voltage present, no error LED red: error in load circuit |
| Switch-on capacity | 10000 µF |
| Current range | 1 A – 10 A (adjustable via switch in 1 A steps) |
| Characteristic | fast (1), medium (2), slow 1 (3), slow 2 (4), slow 3 (5), can be configured (19) see 'Characteristic curves' |

Signal output

| | |
|-------------------|-----------------------------------------------------------------------------------------------------------|
| Signal level | DC 12/24 V: operating voltage on standby, no error, DC 0 V: error, output switched off or manual "OFF" |
| Switching element | Transistor, collector with pull-up resistance |

General

| | |
|------------------------|--------------------------------------------------------------------------|
| Dimensions (w × h × d) | 8.1 mm × 107.4 mm × 116.0 mm |
| Housing material | PA 6.6 (UL 94 V-0, NFF I2, F2) |
| Color of the housing | basalt grey |
| Mounting | DIN rail mountable TS35 (EN 60715) |
| Installation position | Any |
| MTBF | 690000 h |
| Degree of protection | IP20 (only as complete system with power terminal and end block) |
| Connection type | Push-In 0.25 mm ² – 2.5 mm ² AWG 24 – AWG 14 |
| Weight/unit | 0.07 kg |
| PU (units) | 1 |

General ambient conditions

| | |
|-----------------------------|-----------------------------------|
| Operation temperature range | -25 °C ... +50 °C |
| Storage temperature range | -40 °C ... +85 °C |
| Relative air humidity | 10 % – 95 %, without condensation |
| Vibration resistance | 4 g acc. to EN 60068-2-6 |
| Shock resistance | 15 g acc. EN 60068-2-27 |

Certifications/Standards

| | |
|----------------|-----------------------------------|
| Conformity | CE UKCA |
| Certifications | cULus (E135145) URus (E490188) |

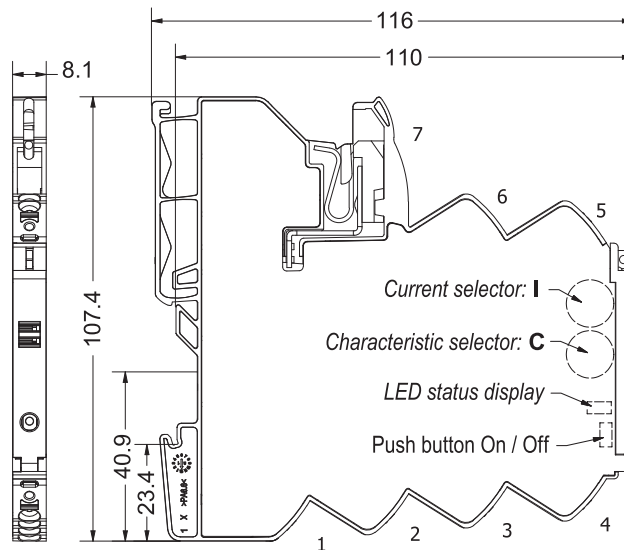
Technical data sheet

Load monitoring · LOCC-Box-Net

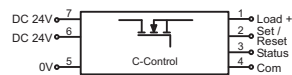
Standards

EN 61000-6-2
EN 61000-6-3
UL 60947-5-1
UL 2367
DNVGL-CG-0339
Temperature Class D – not certified
Humidity Class B – not certified
Vibration Class B – not certified
EMC Class A – not certified
Enclosure Class A – not certified

Dimensions

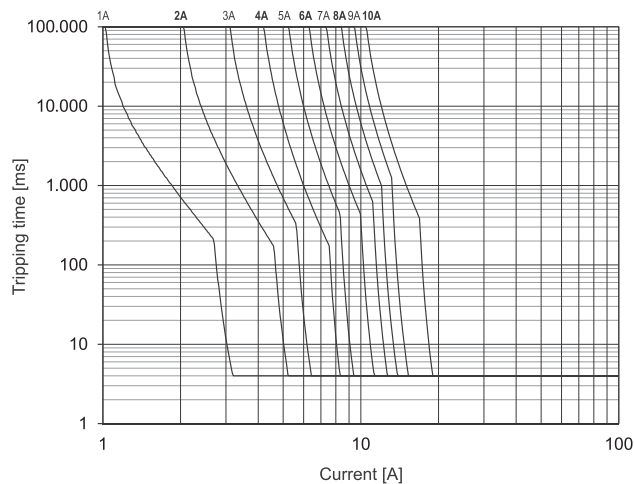


PIN assignment

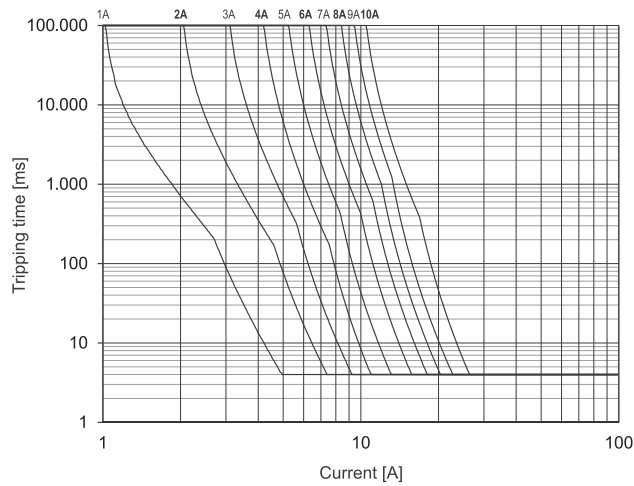


- 1: + Output
- 2: Control input (Set/Reset)
- 3: Status output
- 4: 1 Wire bus (Communication)
- 5: 0V
- 6: + Supply (alternative)
- 7: + Supply

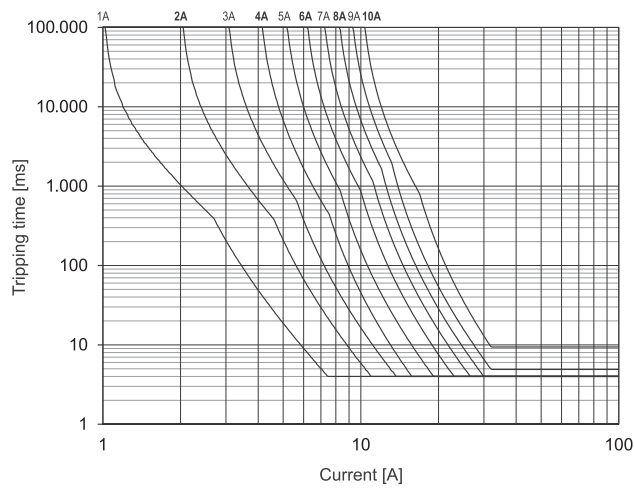
1: Characteristic fast



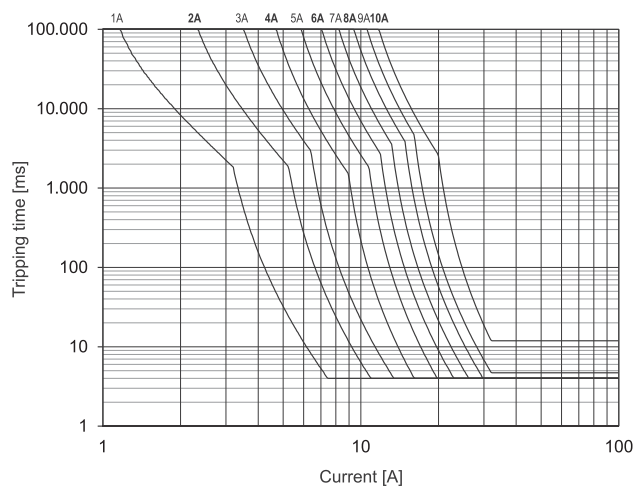
2: Characteristic medium



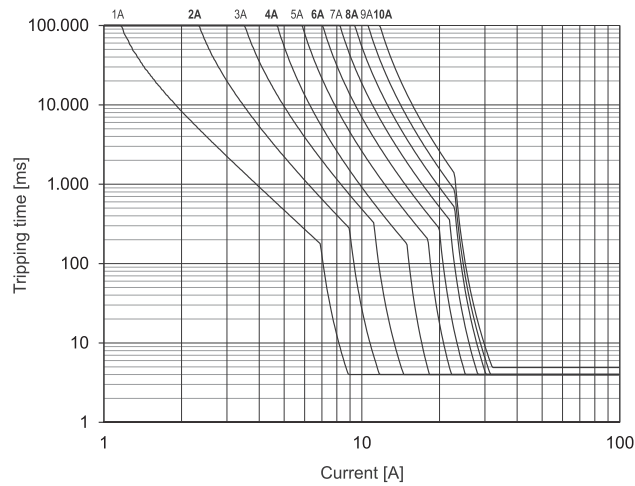
3: Characteristic slow-1



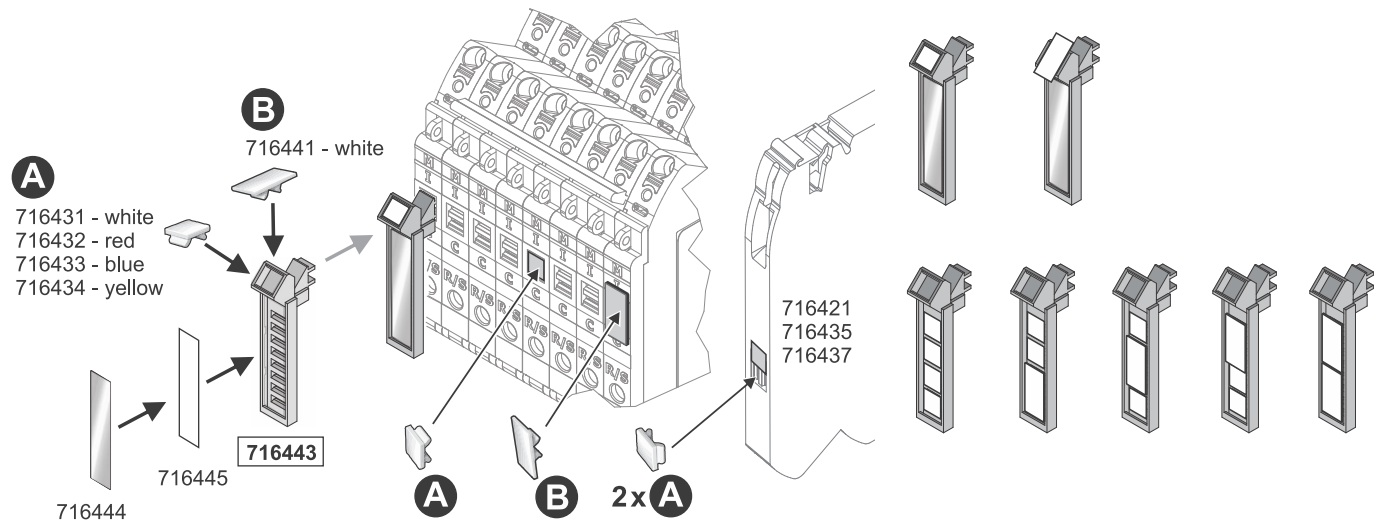
4: Characteristic slow-2



5: Characteristic slow-3



Use



LED status

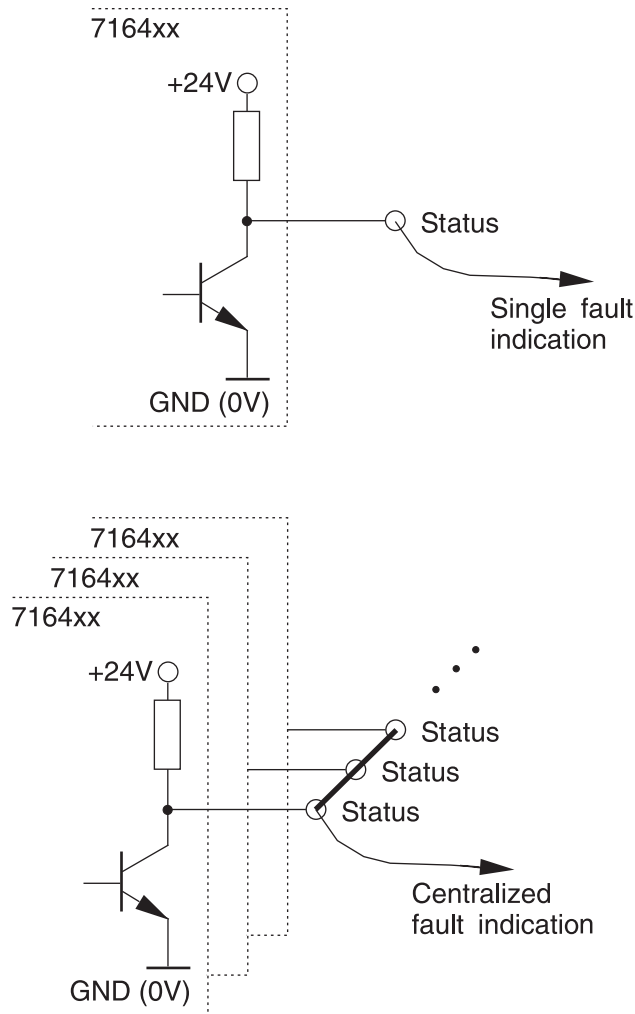
LED Status, Button, Rotary Switch

| | | |
|---------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| LED green | ON | Function is OK* |
| LED green, flashing 1 Hz | Overload | Load above 90 % of I nominal |
| LED green, flashing 5 Hz | Overload | Load above 100 % of I nominal |
| LED red | OFF | Module switched off or acknowledged* |
| LED red, flashing 1 Hz | Overload | Output off due to overload/short circuit* |
| LED red, flashing 5 Hz | Error | Wiring error – feedback (internal error) |
| LED red, flashing shortly | OFF | Output off via remote set/reset |
| LED red/green, flashing 1 Hz | ON | Target settings via rotary switch deviate from actual settings. NOTICE: Switching off and on via pushbutton required. |
| Button *** | ON/OFF | Nominal operation: ON/OFF Load monitoring tripped: 1st push: acknowledge 2nd push: ON |
| Rotary Switch (I) – Switch Position** | Rated current, see page 4. | |
| Rotary Switch (C) – Switch Position** | Characteristic: 1: fast 2: middle 3: slow-1 4: slow-2 5: slow-3 | |

* If the operating voltage is switched off, the last status is saved (Default).
** Accept the setting - after switching on again via the button, not by Remote Set/Reset
*** Master function - switch off via push button, can only be switched on again via push button

For further information see also the operating instructions

Signal output



Mounting diagram

! HINWEIS / NOTICE / AVIS

