

Technical data sheet

Load monitoring · LOCC-Box-C2

Electronic load monitoring up to DC 24 A - DC 4 A

Single channel version, adjustable current range, adjustable characteristic with current limitation acc. to NEC class 2



Identification

Type	LOCC-Box-C2 7-6413
Part No.	716413

Product version

Hardware revision	2.0
Software version	2.3
Datasheet version	01

Input

Type of function	1-channel 1 pin switching
Rated voltage U_N	DC 12/24 V
Operation voltage range	DC 11–30 V
Rated current I_N	DC 5 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 EN 61131
OFF	Pulse with falling edge >100 ms, <800 ms
ON	Pulse with falling edge > 1 s

Output

Switching element	MOSFET
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Output current	max. DC 4 A
Power output	limited to <100 W
Voltage drop	max. 275 mV (4 A)
Status display output	LED green: operating voltage present, no error LED red: error in load circuit
Switch-on capacity	4700 μ F
Current range	0.5 A – 4 A (can be set via switch in 0.5 A steps)
Characteristic	fast (1), medium (2), slow 1 (3) see 'Characteristic curves'
Current limitation	<5 A

Signal output

Signal level	DC 24 V: operating voltage on standby, no error, DC 0 V: error, output switched off and 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)
Mounting	DIN rail mountable TS35 (EN 60715)
Installation position	Any
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 % RH, brief 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 (E170585) URus (E490188)

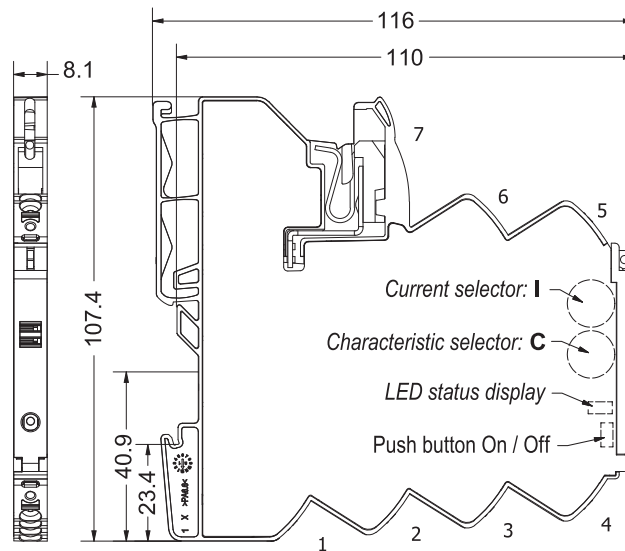
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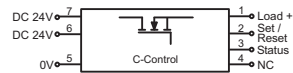
Standards

EN 61000-6-2
 EN 61000-6-3
 EN 61131-2
 UL 61010-1
 UL 61010-2-201
 UL 2367
 DNVGL-CG-0339
 Temperature Class C – not certified
 Humidity Class B – not certified
 Vibration Class B – not certified
 EMC Class A – not certified

Dimensions

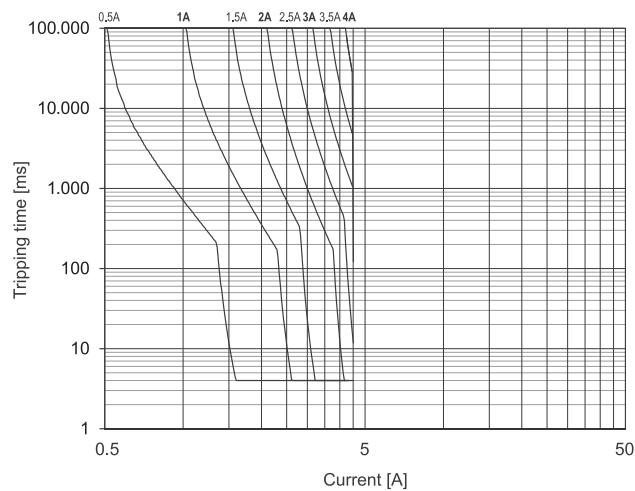


PIN assignment

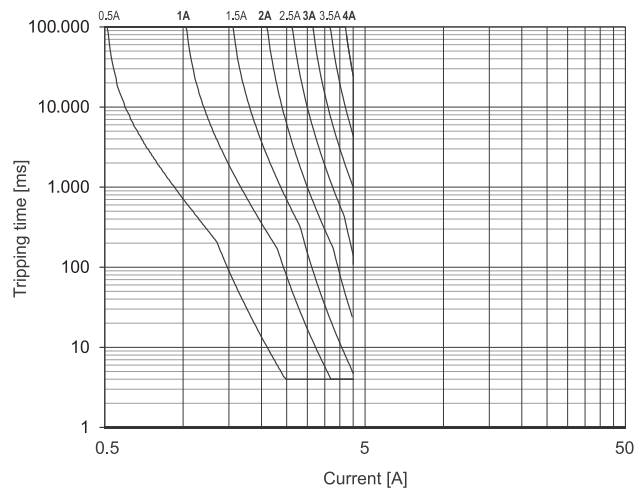


- 1: + Output
- 2: Control input (Set/Reset)
- 3: Status output
- 4: NC
- 5: 0V
- 6: + Supply (alternative)
- 7: + Supply

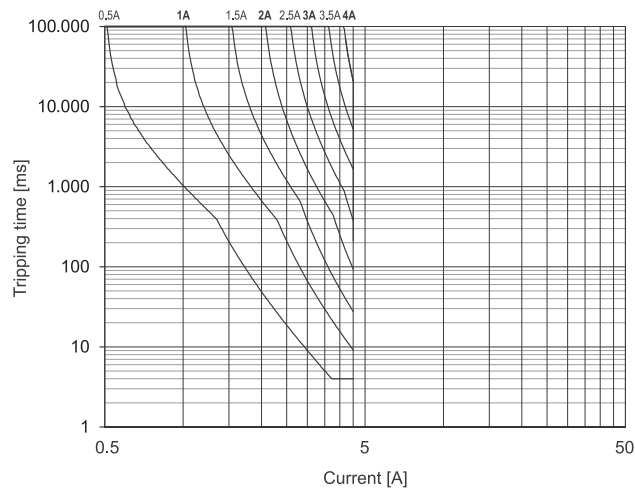
1: Characteristic fast



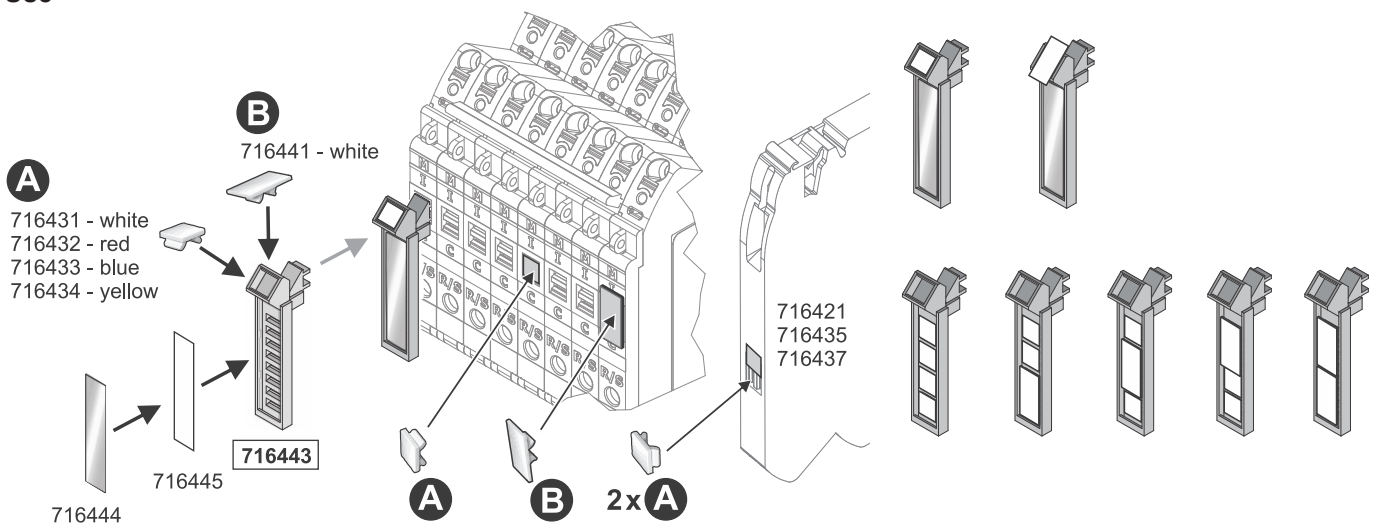
2: Characteristic medium



3: Characteristic slow-1



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

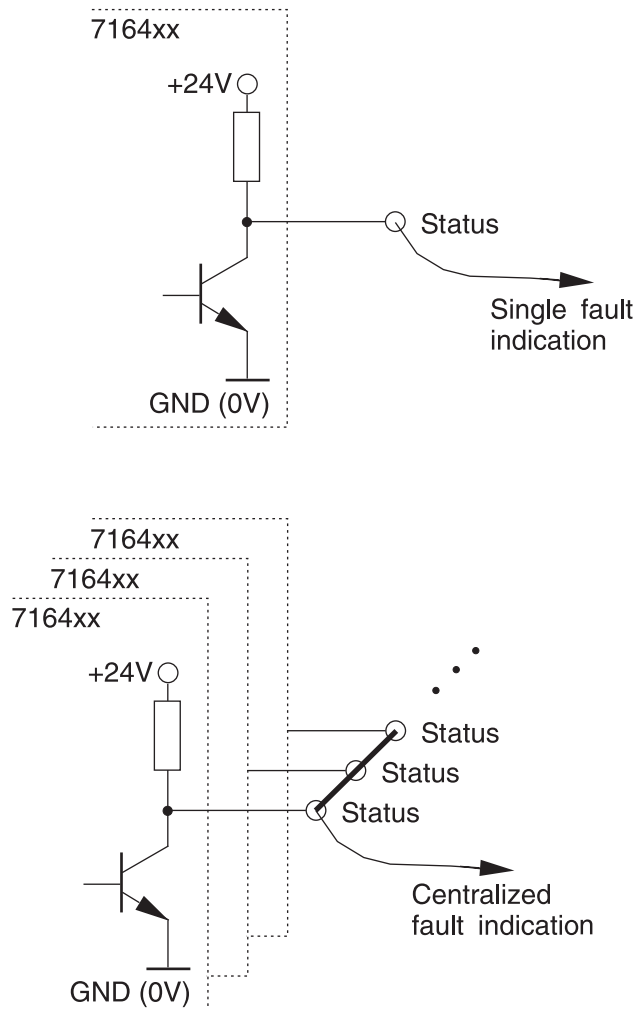
* If the operating voltage is switched off, the last status is saved (Default).

** 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**

