

## Technical data sheet

### Load monitoring · LOCC-Box-C2 NET

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**Electronic load monitoring up to DC 24 A - DC 4 A, with communication**  
**Single channel version, adjustable current range, adjustable characteristic**  
**with current limitation acc. to NEC class 2**



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#### Identification

Type	LOCC-Box-C2 NET 7-6414
Part No.	<a href="#">716414</a>

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#### Product version

Hardware revision	2.0
Software version	2.3
Datasheet version	02

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#### 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

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#### 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

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#### Output

Switching element	MOSFET
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26.09.2023 • Subject to technical modification

Part No. [716414](#) • Datasheet version: 02

page 1 of 7



SYSTEMATIC TECHNOLOGY

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### Load monitoring · LOCC-Box-C2 NET

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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 $\mu$ 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

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### Signal output

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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

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### General

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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 <sup>2</sup> – 2.5 mm <sup>2</sup> AWG 24 – AWG 14
Weight/unit	0.07 kg
PU (units)	1

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### General ambient conditions

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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

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### Certifications/Standards

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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 Humidity Class D – not certified Temperature Class C – not certified Vibration Class B – not certified EMC Class A – not certified
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### Equipment/Spare parts

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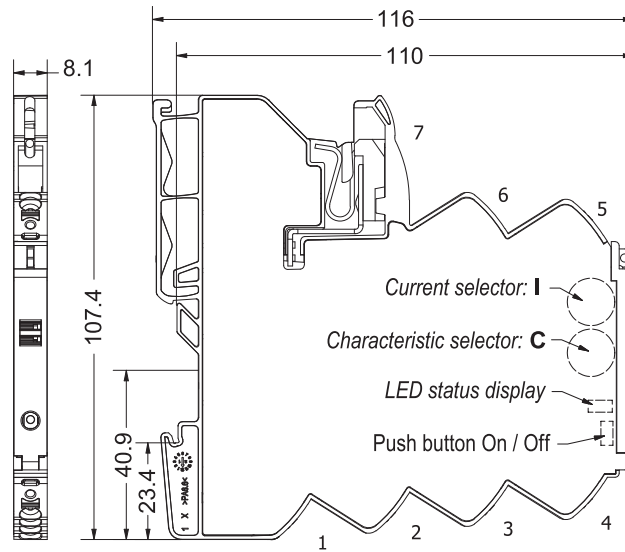
#### Accessories

**0 V collective terminal, white:** Part.-No. 716420 | LOCC-Box-SK 7-6420 | PU: 2 units  
**Intermediate feed-in terminal:** Part.-No. 716421 | LOCC-Box-EKL 7-6421 | PU: 2 units  
**Distance terminal without contact:** Part.-No. 716422 | LOCC-Box-DKL 7-6422 | PU: 2 units  
**Empty housing without terminals:** Part.-No. 716424 | LOCC-Box-DY 7-6424 | PU: 2 units  
**Supply set 10 mm<sup>2</sup>:** Part.-No. 716425 | LOCC-Box-ES 7-6425 | PU: 1 unit  
**Supply set 16 mm<sup>2</sup>:** Part.-No. 716447 | LOCC-Box-ES16 7-6447 | PU: 1 unit  
**Jumper comb 8-pin, white:** Part.-No. 716428 | LOCC-Box-BKW 7-6428 | PU: 5 units  
**Jumper comb 8-pin, red:** Part.-No. 716429 | LOCC-Box-BKR 7-6429 | PU: 5 units  
**Jumper comb 8-pin, blue:** Part.-No. 716430 | LOCC-Box-BKB 7-6430 | PU: 5 units  
**Jumper comb 16-pin, white:** Part.-No. 716438 | LOCC-Box-BKW 7-6438 | PU: 5 units  
**Jumper comb 16-pin, red:** Part.-No. 716439 | LOCC-Box-BKR 7-6439 | PU: 5 units  
**Jumper comb 16-pin, blue:** Part.-No. 716440 | LOCC-Box-BKB 7-6440 | PU: 5 units  
**Labelling sign 5×5 mm, white:** Part.-No. 716431 | LOCC-Box-BZW 7-6431 | PU: 1 unit  
**Labelling sign 5×5 mm, red:** Part.-No. 716432 | LOCC-Box-BZR 7-6432 | PU: 1 unit  
**Labelling sign 5×5 mm, blue:** Part.-No. 716433 | LOCC-Box-BZB 7-6433 | PU: 1 unit  
**Labelling sign 5×5 mm, yellow:** Part.-No. 716434 | LOCC-Box-BZG 7-6434 | PU: 1 unit  
**Tag holder, white:** Part.-No. 716443 | LOCC-Box-BZT 7-6443 | PU: 20 units  
**Cover for tag holder, transparent:** Part.-No. 716444 | LOCC-Box-BAD 7-6444 | PU: 20 units  
**Material name, white:** Part.-No. 716445 | LOCC-Box-LEB 7-6445 | PU: 10 units  
**Material name, white:** Part.-No. 716446 | LOCC-Box-BZW 7-6446 | PU: 1 unit  
**CU rail 10×3 mm:** Part.-No. 716426 | LOCC-Box-CU 7-6426 | PU: 1 unit  
**CU rail cover, grey:** Part.-No. 716427 | LOCC-Box-AD 7-6427 | PU: 1 unit

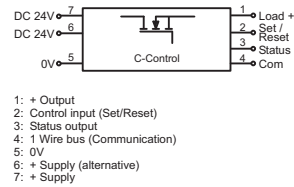
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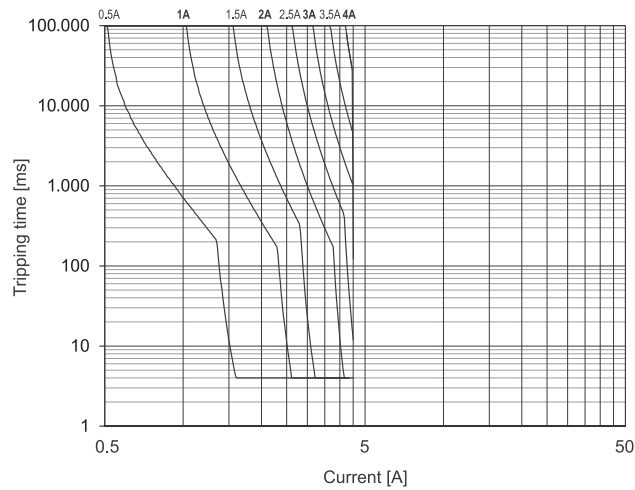
### Dimensions



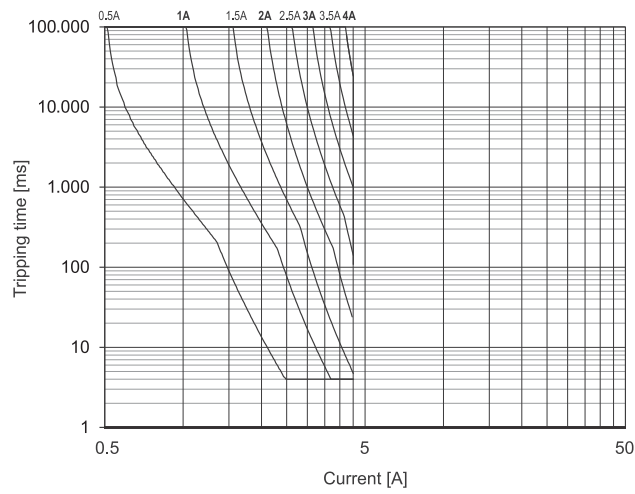
### PIN assignment



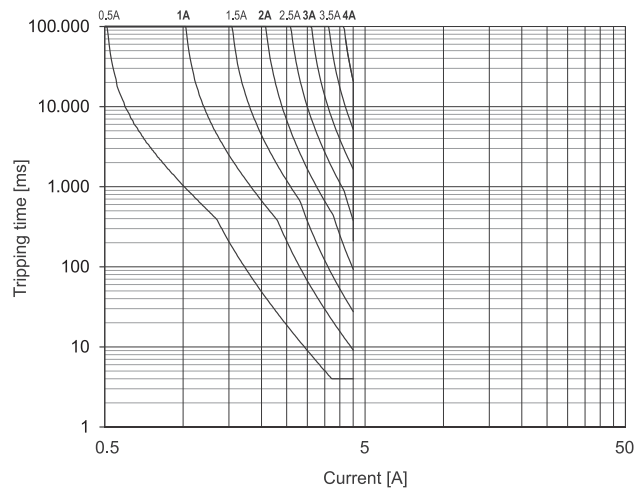
### 1: Characteristic fast



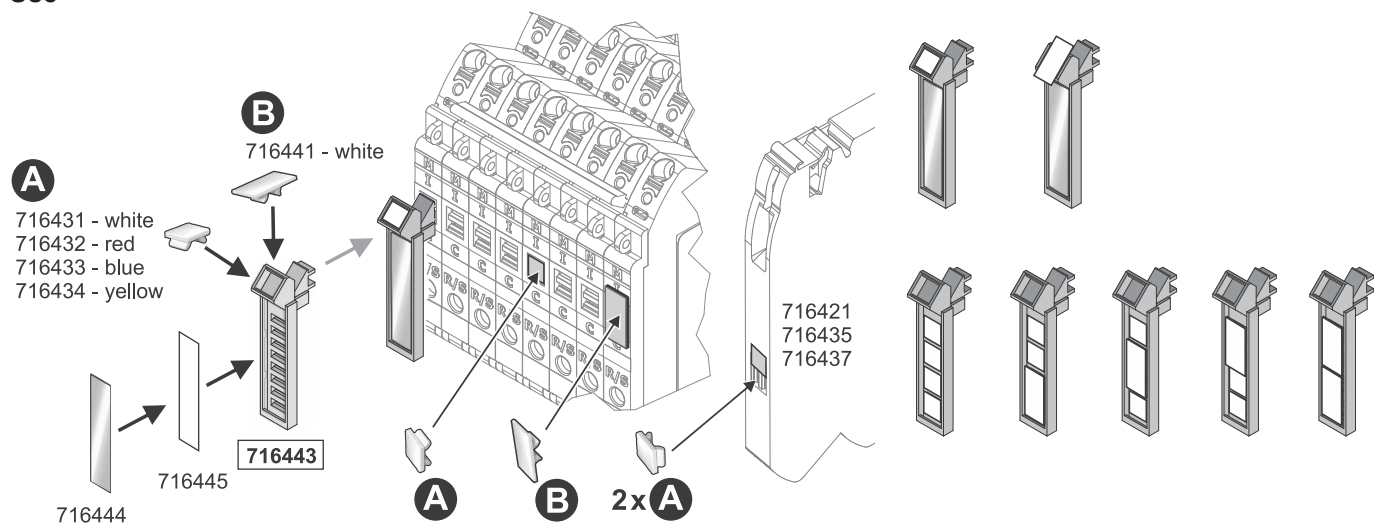
**2: Characteristic medium**



**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. <b>NOTICE: Switching off and on via pushbutton required.</b>
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

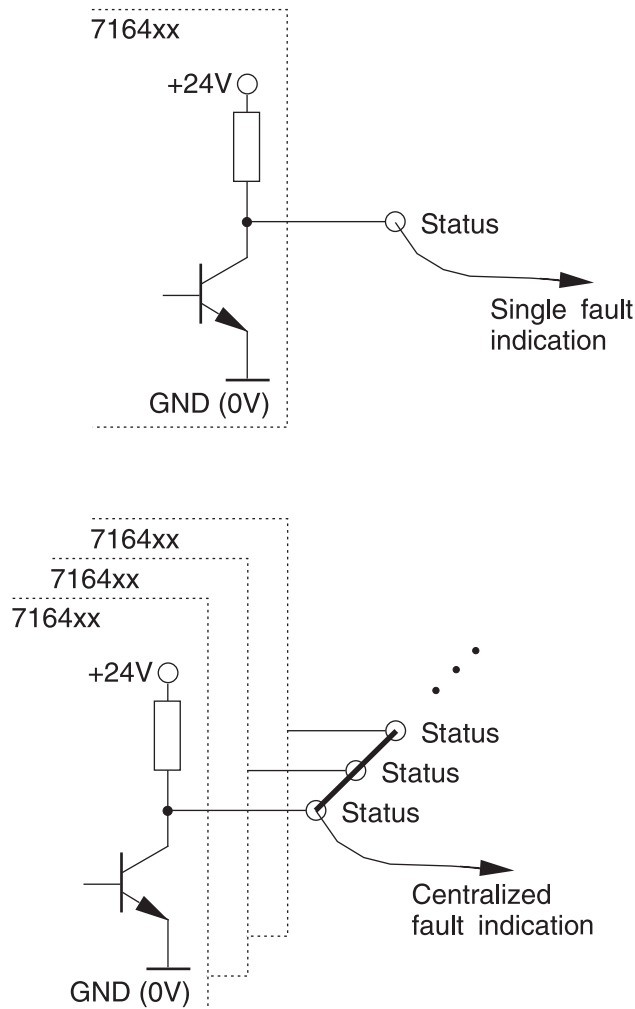
\* If the operating voltage is switched off, the last status is saved (Default).

\*\* 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**

