

Technical data sheet

Load monitoring · LCOS CC

Electronic load monitoring up to DC 10 A

2-channel version, single pole switching, DC 1 A – DC 10 A, adjustable characteristic

Fault messages: single/collective/90% message, Remote Control input



Identification

Type	LCOS-CC-2K-1P DC 24V
Part No.	779100.2111

Product version

Hardware revision	1.1
Software version	1.4
Datasheet version	06

Input

Type of function	2-channel 1 pin switching
Rated voltage U_N	DC 24 V
Operation voltage range	DC 20.4–28.8 V
Rated current I_N	DC 10 A
Supply current	DC 16 A via LCOS Powerbus
Reverse voltage protection	Internal electronics

Control input (Set / Reset)

Signal level	DC 24 V acc. to EN 61131
OFF	Pulse with falling edge >100 ms, <800 ms
ON	Pulse with falling edge > 1 s
Isolation voltage	1.5 kV

Output

Switching element	MOSFET
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Output current	Max. DC 10 A
Voltage drop	<170 mV (10 A)
Status display output	LED green: no error, LED green flashing: 90 % utilisation LED red flashing: triggered, LED red: unit off
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), adjustable via switch, see 'characteristic curves'
Power Dissipation	2,2 W

Signal output

Switching element	Transistor, open collector with pull-up resistor
Single channel message	Acc. to IEC 61131-2: High level: no errors, low level: there are errors
90 % of the rated current I_B	Acc. to IEC 61131-2: High level <90 %, low level >90 %
centralised fault signalling	Acc. to IEC 61131-2: High level: no errors, low level: there are errors

General

Dimensions (w × h × d)	22.5 mm × 144.0 mm × 102.0 mm (including function carrier, without plug-in terminals on the side)
Housing material	PA 6.6 (UL 94 V-0, NFF I2, F2)
Mounting	Pluggable On LCOS function carrier 22.5 mm (Accessories) DIN rail mounting (EN 60715)
Installation position	Any
Degree of protection	IP20 (EN 60529)
Climatic conditions	Acc. to EN 60721 Stationary use at weather protected locations
Connection type load side	X1: 8-pin multi-point plug, RM 5.08, RM 5,08, Push-In
Connection type control side	X2: 12-pin multi-point plug, RM 3.5, Push-In
Connection type	Single wire 0.08 mm ² – 1.5 mm ² / AWG 28–16
Strip length	RM 3.5: 9 mm, RM 5.08: 10 mm
Weight/unit	0.2 kg
PU (units)	1

General ambient conditions

Operation temperature range	0 °C ... +55 °C
Storage temperature range	-40 °C ... +70 °C
Over voltage category	II
Degree of pollution	2
Relative air humidity	10 % – 95 %, without condensation
Vibration resistance	0.7 g acc. to EN 60068-2-6
Shock resistance	15 g acc. EN 60068-2-27

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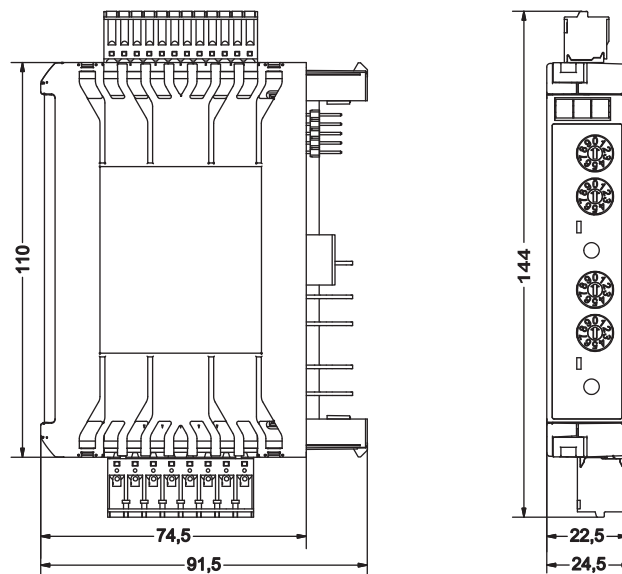
Certifications/Standards

Conformity	CE UKCA
Certifications	cULus (E170585) DNV (TAA00002SY)
Standards	EN 61000-6-2 EN 61000-6-4 UL 61010-1 UL 61010-2-201 DNV-CG-0339

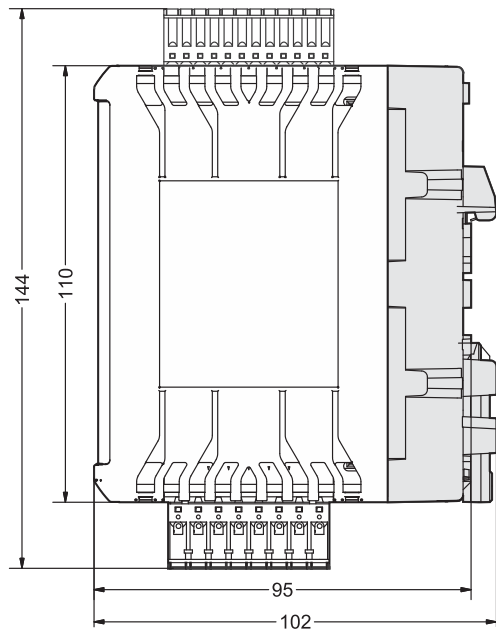
Notes and Comments

Included in the delivery	Plug-in terminals : CS 5.08 and CS 3.50
Not included in the delivery	Function carrier and other accessories

Dimensions



Dimensions



PIN assignment

X3 Powerbus

PIN/ PIN/ PIN	Signal Signal
1	GND
2	GND
3	DC 24V
4	DC 24V

DC24V 3.4
GND 1.2

Load+ CH2 1.2
Load- CH2 3.4
Load+ CH1 5.6
Load- CH1 7.8

X1 C-Control

X2

PIN/ Broches	Signal/ Signal
1	Status CH1 / État CH1
2	Status CH2 / État CH2
3	GND
4	Status CH1 90% / État CH1 90%
5	Status CH2 90% / État CH2 90%
6	Status Out 1+2 / État Out 1+2
7	Status Out 1+2 / État Out 1+2
8	DC 24 V I _{max} = 100 mA
9	GND
10	Remote R/S+ CH1/ R/S à distance + CH1
11	Remote R/S+ CH2/ R/S à distance + CH2
12	Remote R/S- CH1/CH2 / R/S à distance - CH1/CH2

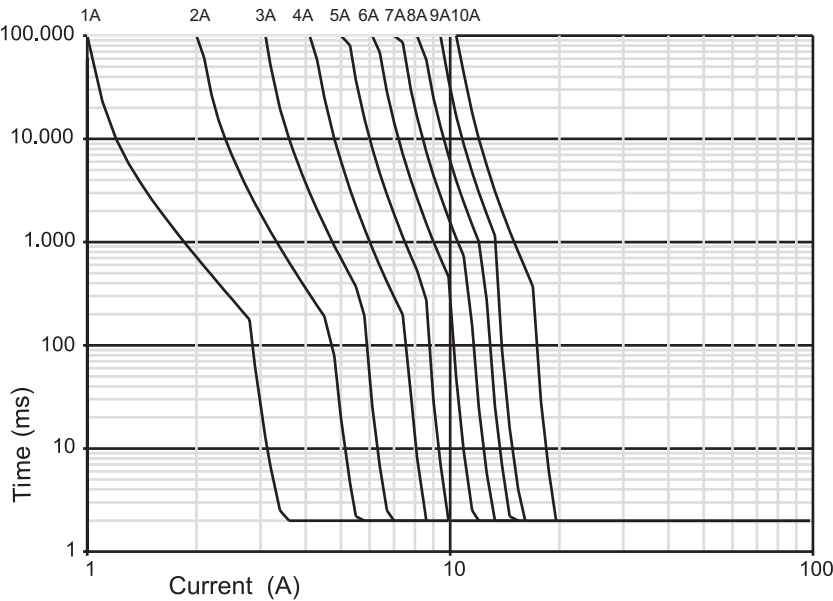
Output

Input

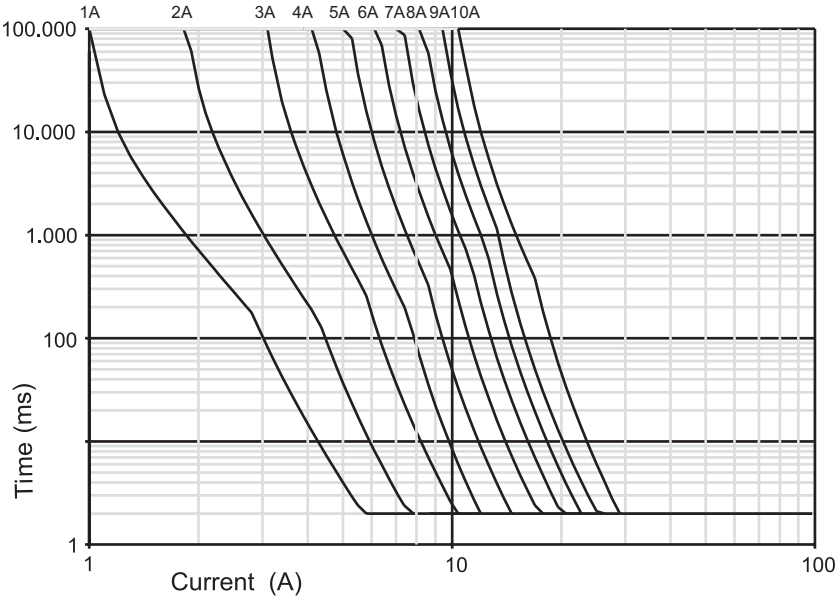
X3

PIN	Signal
12	R/S- CH1/CH2
11	R/S+ CH2
10	R/S+ CH1
9	GND
8	DC24V
7	Status Out
6	Status CH2 90%
5	Status CH1 90%
4	GND
3	Status CH2
2	Status CH1
1	Status CH1

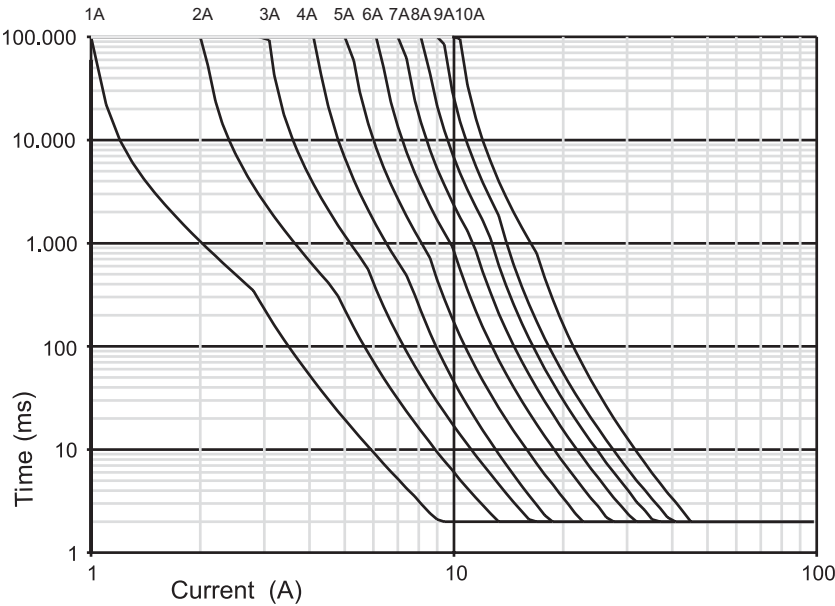
1: Characteristic fast



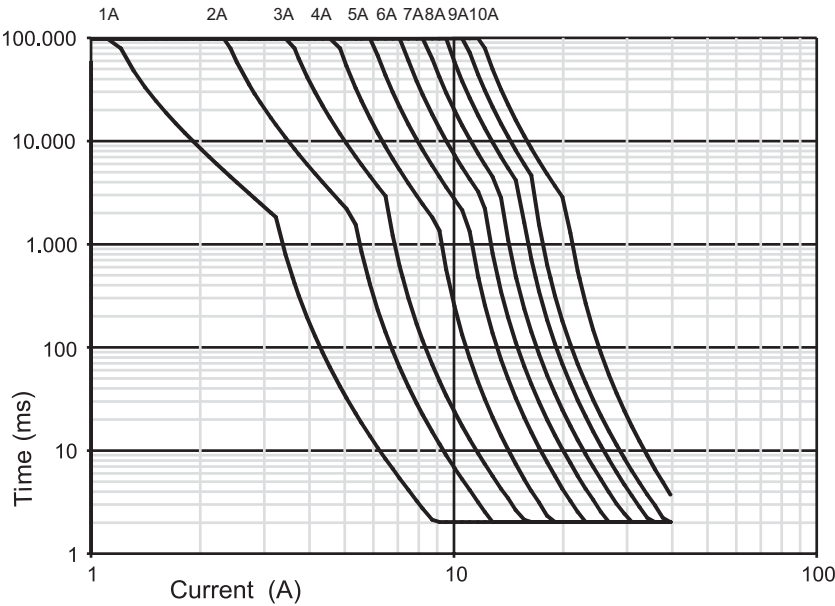
2: Characteristic medium



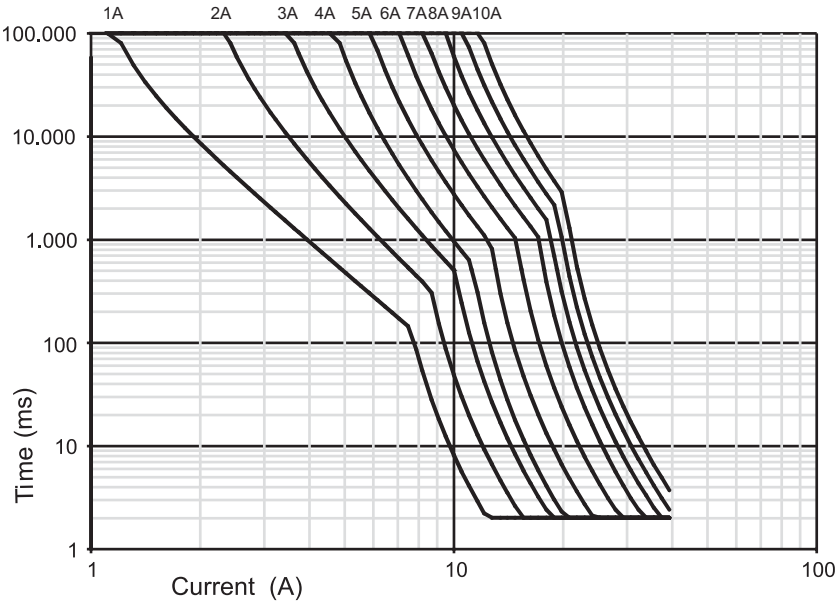
3: Characteristic slow-1



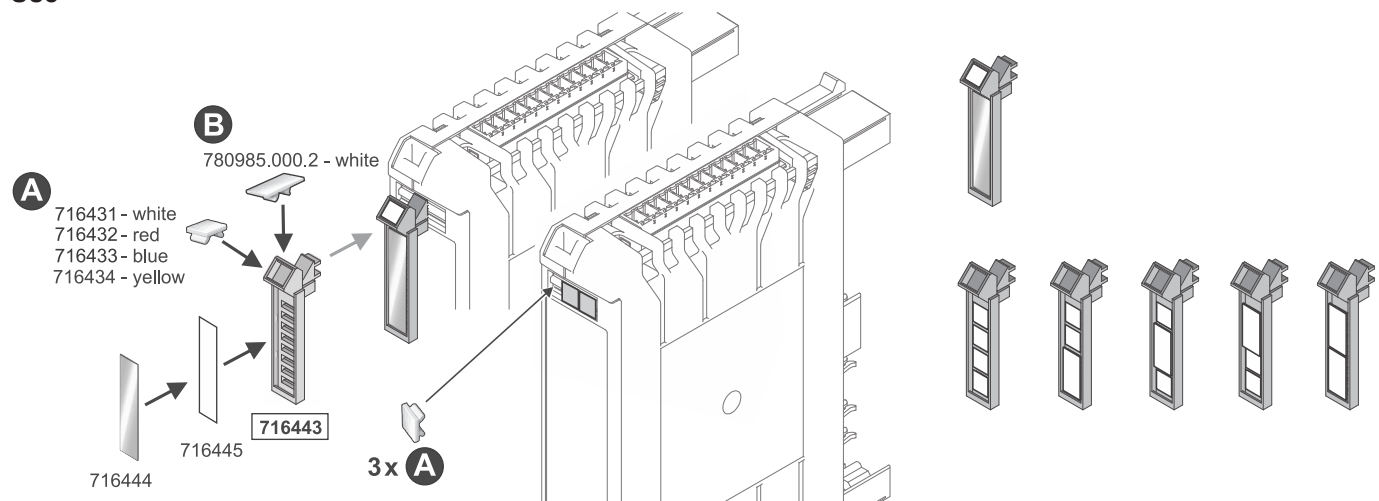
4: Characteristic slow-2



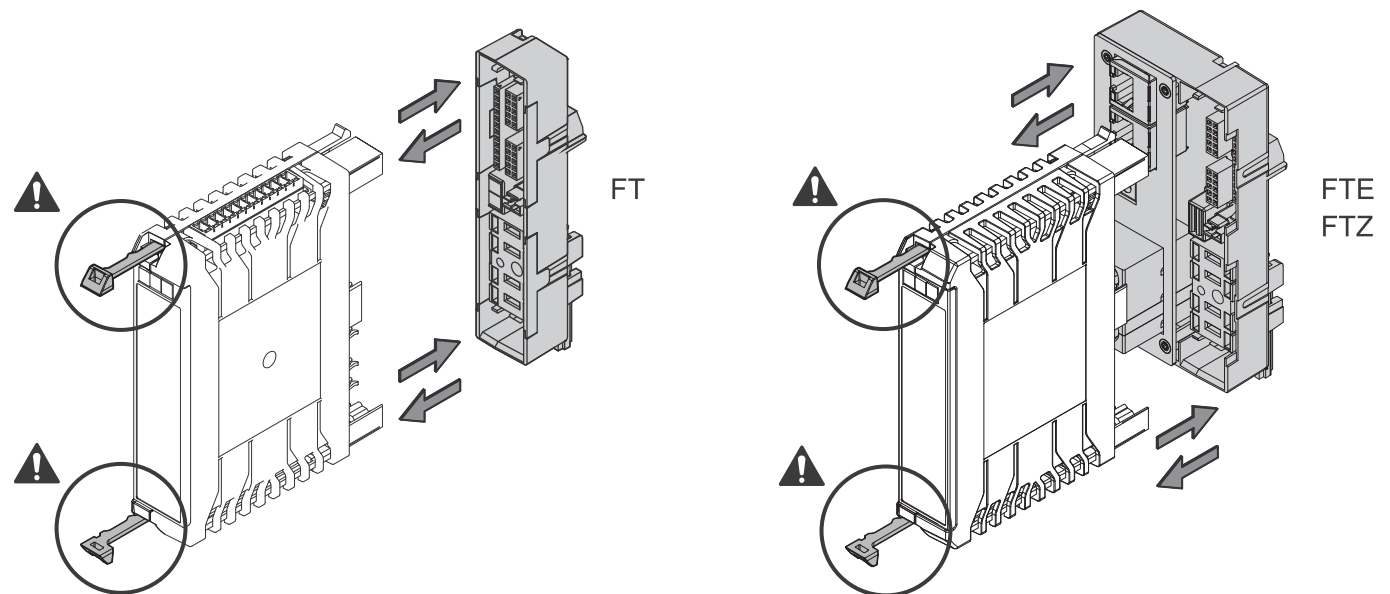
5: Characteristic slow-3



Use



Use



Use

FT, without supply - LCOS function carriers, 22.5 mm - overview

