INTELLIGENT ELECTRONIC CIRCUIT PROTECTOR REX22D-T

REX22D-T

E-T-A's compact and flexible REX system represents a comprehensive DC 24 V protection- and power distribution solution for the machine building industry. It is a perfectly harmonised system including power supply, overcurrent protection, power distribution and bus controller.
The REX22D-T selectively protects all DC 24 V load circuits up to 20 A and linearly limits the output current when switching on or before tripping. The limitation limits the rated current in the event of a short circuit. This allows effective and calculable protection of switch mode power supplies, even with small power reserves.

TYPICAL FEATURES

- Devices including supply module, overcurrent protection, power distribution module and bus controller
- Remote control, parametrising, diagnosis and monitoring via IO link, Modbus-RTU or fieldbus systems in the CPC12 ***ControlPlex***® Controller
- BASE and COM mode in a single module
- Fixed rated current increments between 12 A - 20 A
- Rated current adjustable up to 20 A
- No accessories required for connecting the components

YOUR BENEFITS

- Increased transparency and flexibility through adjustable current ratings via slide switch
- Reduced downtimes through calculable limited max. current
- Increased availability as even loads with higher current requirements can be protected without nuisance tripping
- Provides flexibility through automatic operating mode recognition

PREFERRED TYPES

Preferred types are E-T-A products, which are most frequently used by our customers. We manufacture these preferred types in substantial quantities. You can find an overview of our preferred types here (Page 8).

TYP. APPLICATIONS

Machine building industry, Automation, Car production

APPROVALS / CERTIFICATIONS

NEC Class2

WEB LINKS

Further information, Mounting and operation (videos), International approvals, Technical basics, REACH, RoHS, Contact

COMPLIANCE

GENERAL INFORMATION

SAFETY AND INSTALLATION INSTRUCTIONS

Installation must be done by a qualified electrician.

- The EM12D-T circuit protector is only intended for use with extra-low voltage (DC 24 V).
- Connection to higher or not selectively protected voltages can cause harmful conditions or damage.
- The device must only be supplied with power after proper installation.
- When a circuit protector has tripped and before the reset, the cause of the failure (short circuit or overload) must be remedied.
- The national standards (e.g. in Germany DIN VDE 0100) for installation and selection of the feed and return cables must be observed.
- When operating in COM mode, please observe the separate EM12D or CPC12 instruction manual.

- The buttons must only be operated without tools.

Electrostatically sensitive sub-assemblies can be destroyed by voltages far below the human perception threshold. These voltages already occur if you touch a component or electrical terminals of a component without being electrostatically discharged. The damage of a sub-assembly caused by an overvoltage is often not immediately recognised, but will be noticed only after a longer operating time.

Caution: Exchange / disassembly only in dead-voltage condition! Potentials will be interrupted.
Mounting instruction: Mounting or actuation of the REX connector arm must only be effected at dead-voltage. For start-up, the REX connector arm must be closed. A maximum of 40 modules can be mounted in total.
Note: Observe the data sheets for electronic circuit protectors in the REX portfolio, assembly /disassembly on DIN rail / mounting direction / mounting area / sealing / application example and many more.

OPERATING INSTRUCTIONS

General operating instructions	Selection of rated current of the circuit protector ≤ Rated current of the power supply.
Requesting the currently set rated current	You can enquire the currently set rated current for each channel independently of the operating mode (COM or BASE) directly at the REX22D-TE2. Start the enquiry mode by pushing the button between >= 2 seconds and < 5 seconds. After releasing the button, the LED briefly lights up in RED to indicate the start of the enquiry. The LED then indicates the set rated current by flashing ORANGE. The adjusted rated current is indicated through the number of flashing cycles. E.g. when the LED is blinking 6 times, the rated current is set to 6 Ampere. When the adjusted current rating is set, the LED lights up in RED again to indicate the start of the signalling. The enquiry mode is left after the adjusted current rating was signalled 5 times or by pressing the button. The display will now show the current operating condition again. The enquiry mode is available in all operating conditions.
Rated current settings	The rated current of the REX12D-TE2 can be set both in BASE mode and in COM mode. The BASE or COM mode setting (without active connection to the superordinate control unit) is started per channel via pressing the momentary switch for >= 5 seconds. After releasing the button, the LED lights up in RED to indicate the start of the adjustment. The LED then flashes GREEN to signal the rated current to be set. After reaching the max. adjustment value, signalling re-starts. The switch-over from the maximum to the minimum setting value is indicated through a short red flashing of the LED. The current rating to be set is acknowledged by pressing the button during the blinking period of 1 A up to the max. setting value. If for instance the button is pressed after the 6th flashing of the GREEN LED, the set rated current is 6 A and the display shows the current operating condition again. If the button is not pressed, the adjustment mode is left after 5 times signalling the current rating range without a new current rating to be set and the display switches back to the current operating condition. The enquiry mode is available in all operating conditions. In the COM mode, settings can be adjusted via the active connection to the superordinate control unit, see operating instructions.

FURTHER INFORMATION

Mounting and operation (videos)
https://www.e-t-a.de/index.php?id=17311

TECHNICAL DATA (T_u = +23 °C, U_b = DC 24 V)

ELECTRICAL DATA

Rated voltage U_n	DC 24 V
Operating voltage U_b	18...32 V (no battery-buffered applications)
Rated current type	Fixed and adjustable current ratings:
Current ratings	with different current ratings from 1 A to 20 A see ordering number key.
Parallel connection of several load outputs	Not admissible

Condition as delivered	Condition as delivered max. rated current Assembly status: ON Option: OFF, see ordering number key
Quiescent current I_0	REX22D-Tx1 1-channel in ON condition: typ. 11 mA REX22D-Tx2 2-channel in ON condition: typ. 16 mA
Reverse polarity protection	Yes, without load
Operating condition signal	Multi-coloured LED
LED for operating condition signalling	**Green:** • Device ON Load circuit switched through **Green/orange blinking:** • Device ON Load current warning limit reached **Orange:** • Overload or short circuit until electronic disconnection • Circuit protector was switched off by the superordinate control unit, LED is continuously orange **Red:** • After overload or short circuit disconnection • In the event of low voltage disconnection of the operating voltage in ON condition with automatic reset **OFF:** • Device switched off via ON/OFF momentary switch • No operating voltage • Activated fail safe element or defective initialisation of the circuit protector
Load current measurement	1...10 A types Measuring accuracy ± 5 % ± 0.1 A 10...20 A types Measuring accuracy ± 5 % ± 0.3 A
Load voltage measurement	Measuring accuracy ± 3 % ± 0.1 V
Output (load circuit)	Power MOSFET switching output (plus switching)
Overcurrent behaviour	Typ. 1.2 I_n (1.05...1.35 I_n) - trip time typ. 3 s Exception: I_n 3.6 A CL2 typ. 1.05 I_n - trip time typ. 3 s
Short circuit behaviour	Active current limitation typ. 2.5 I_n, 1 A typ. 1.6 I_n, 2 A - 5 A typ. 1.4 I_n, 6 A - 20 A Trip time typ. 0.01...1 s, see time/current characteristic
Switch-on performance - factory settings	Last condition
Load current warning limit (I_{WLimit}) - factory settings (no COM mode)	Typ. 0.9 I_n
Load current warning limit (I_{WLimit}) - factory settings (in COM mode)	Typ. 0.8 I_n
Switch-on performance - setting range (in COM mode)	Last condition
Rated current - setting range (in COM mode)	1 A - 3,6 A; 1 A - 10 A in 1 A increments
Load current warning limit (I_{WLimit}) - setting range (in COM mode)	0.5...1 I_n (parametrisable)
Hysteresis - load current warning limit	Typ. 5 %
Operating voltage monitoring for low voltage	OFF : at typ. U_b < 16.0 V ON: at typ. U_b > 19.0 V With automatic OFF and ON operation
Hysteresis - operating voltage monitoring	2 V
Switch-on delay - when power ON	Channel 1: typ. 1500 ms (depending on slot) Channel 2: typ. 1600 ms (depending on slot)
Switch-on delay when switching on via ON/OFF switch	Channel 1: typ. 5 ms Channel 2: typ. 100 ms
Switch-on delay after low voltage	Channel 1: typ. 5 ms Channel 2: typ. 5 ms
Disconnection of the load circuit	• Manually on the device via the ON/OFF momentary switch • Remote control via the superordinate control unit • After an overload / short circuit disconnection with storage (no automatic restart) • Temporarily in the event of low voltage • Due to missing operating voltage

Switching on the load circuit via ON/ OFF momentary switch	The circuit protector can be switched on by the superordinate control unit or otherwise directly on the device. These two options are linked with AND. Switch is only possible if switched on from both positions. If the circuit protector was switched off either by the control unit or directly on the device via the momentary switch, switching on the device again must be effected at the same position.
Switching on the load circuit by applying operating voltage	For On-switching, the device must be supplied with the operating voltage. The device re-starts with the last stored condition.
Reset function / Reset	A disabled load output (disabled by overload / short circuit) can externally be reset via the control input.
Leakage current in the load circuit in OFF condition	Typ. 0.2 mA
Capacitive switch-on capacity	Up to 40,000 µF (depending on: Cable attenuation, power supply, load current and current rating)
Load circuit reverse supply resistance	Max. DC 32 V
Free-wheeling circuit	External free-wheeling circuit at inductive load (rating according to load)
Insulation co-ordination (EN IEC 60664)	0.5 kV Overvoltage category: II Pollution degree: 2 Reinforced insulation in the actuating area
Insulation resistance	N/a, electronic disconnection only

Status output FM / REX22D-Tx-100-xx	
Error message FM in the REX system	Combined with the EM12-T01-001-DC24V-40A supply module, a group signalling is realised via the Si auxiliary contact.
Electrical data	Potential-free signal contact: max. DC 30 V / 0.5 A, min. 10 V / 1 mA
Normal condition FM	• Auxiliary contact closed in the EM12-T supply module • In ON condition, load output ON • In OFF condition, load output OFF • If there is no operating voltage U_B in the REX system
Fault condition FM	• Auxiliary contact open in the EM12-T supply module • Load output blocked after overload / short circuit disconnection • After low voltage disconnection of operating voltage in ON condition with autoreset • If there is no U_B in the EM12-T supply module

Status output SM / REX22D-Tx-101-xx	
Status message SM in the REX system	Combined with the EM12-T01-001-DC24V-40A supply module, a group signalling is realised via the Si auxiliary contact.
Electrical data	Potential-free signal contact: max. DC 30 V / 0.5 A, min. 10 V / 1 mA
Normal condition SM	• Auxiliary contact closed in the EM12-T supply module • In ON condition, load output ON • If there is no operating voltage U_B in the REX system
Fault condition SM	• Auxiliary contact open in the EM12-T supply module • When OFF, load output is switched off • Load output blocked after overload / short circuit disconnection • After low voltage disconnection of operating voltage in ON condition with autoreset • If there is no operating voltage U_b in the EM12-T supply module

VOLTAGE DROP, CURRENT LIMITATION, TRIP TIME AND FAIL-SAFE ELEMENT

Rated current I_n[A]	Typical Voltage dip U_{on}typ. per 1 A (at +23 °C) [mV]	Active current limitation	Trip time typically [s]	Fail-safe element [A]
1 A/ 2 A/ 4 A 2 A/ 3 A/ 4 A	27	2.5 I_n, 1 A 1.6 I_n, 2 A - 5 A	Overload disconnection (I_{OL}): 3 Short circuit disconnection (I_{SC}): 0.01 to 1	6.3
2 A/ 4 A/ 6 A 3 A/ 5 A/ 7 A	17	1.6 I_n, 2 A - 5 A 1.4 I_n, 6 A - 20 A	Overload disconnection (I_{OL}): 3 Short circuit disconnection (I_{SC}): 0.01 to 1	10

6 A/ 8 A/ 10 A 1 A-10 A	11	2.5 I_n, 1 A 1.6 I_n, 2 A - 5 A 1.4 I_n, 6 A - 20 A	Overload disconnection (I_{OL}): 3 Short circuit disconnection (I_{SC}): 0.01 to 1	15
10 A/ 12 A/ 15 A 12 A 16 A	6	1.4 I_n, 6 A - 20 A	Overload disconnection (I_{OL}): 3 Short circuit disconnection (I_{SC}): 0.01 to 1	25
10 A/ 16 A/ 20 A 12 A/ 16 A/ 20 A 20 A	5.3	1.4 I_n, 6 A - 20 A	Overload disconnection (I_{OL}): 3 Short circuit disconnection (I_{SC}): 0.01 to 1	30

POWER LOSS IN W

Rated current I_n [A]	Power loss [W]
12	1.13
16	1.80
20	2.38
10/ 12/ 15	0.86/ 1.13/ 1.61
10/ 16/ 20	0.79/ 1.62/ 2.38
12/ 16/ 20	1.03/ 1.62/ 2.38
2/ 3/ 3.6	0.74/ 1.19/ 1.55
1/ 2/ 4	0.44/ 0.60/ 1.25
2/ 3/ 4	0.60/ 0.87/ 1.25
2/ 4/ 6	0.52/ 0.93/ 1.61
3/ 5/ 7	0.69/ 1.23/ 2.05
2/ 3/ 4 - 6/ 8/ 10	0.85/ 1.24/ 1.76
6/ 8/ 10	1.18/ 1.79/ 2.58
1 -**3.6**	1.55
1 -**10**	2.58

DIGITAL DATA

Note on the operating mode	The REX22D-Tx can be operated both with a passive supply module (EM12-T) in the Base mode or with an active supply module (EM12D-T) in the COM mode. The operating mode is automatically recognised.

OVERVIEW OF COMMANDS IN THE COM MODE

Writing/reading the device configuration (parameters)	• Rated current (only for REX22D-TE2-10x-DC24V-xA-xA versions) • Load current warning limit
Reading static device information	• Rated current • Product type • Serial number • Hardware version • Software version
Reading dynamic device information / measuring values	• Load current • Load voltage • Error memory • Trip counter • Reason of last tripping • Status / event of device
Control commands	• Switch on/off or reset load output • Reset error memory • Reset trip counter • Set parameters to factory settings

MECHANICAL DATA

Mounting dimensions (WxHxD)	12.5 x 80 x 98.5 mm
Mass	63...66 g
Mounting data	DIN rail according to EN 60715-35x7.5

Mounting cycles	Min. 100

MOUNTING VALUES - PUSH-IN TERMINAL			
Terminal connection capacity	**Cable cross section [mm²]**	**Cable cross section [AWG]**	**Stripping length [mm]**
rigid	0.14…4	24…14	8...10
flexible	0.14…4	24…14	8...10
flexible with wire end ferrule with plastic sleeve	0.14…2.5	24…12	8…10
flexible with wire end ferrule without plastic sleeve	0.14…2.5	24…12	8…10

AMBIENT CONDITIONS	
Ambient temperature	-25...+60 °C (without condensation, cf. EN 60204-1)
Storage temperature	-40...+70 °C
Mounting temperature	+5...+60 °C
Damp heat	**Test according to IEC 60068-2-78, test cab. climate class 3K3 to EN60721** 96 h at 95 % rel. humidity/40 °C
Vibration	**Test according to IEC 60068-2-6 test Fc** 5 g
IP code standard	IEC 60529, DIN VDE 0470
Actuating area IP code (standard)	IP30
Terminal area IP code (standard)	IP20
EMC requirements (EMC directive, CE logo) emitted interference	EN 61000-6-3
EMC requirements (EMC directive, CE logo) resistance to disturbances	EN 61000-6-2
Operating altitude	2,000 m a. sea level (SL) 3,000 m a. SL up to +55 °C 4,000 m a. SL up to +50 °C
Maximum ambient pressure during operation	4 bar above atmospheric pressure

ORDERING NUMBER CODE

R	E	X	2	2	D	-	T	A	1	-	1	0	0	-	D	C	2	4	V	-	1	6	A
1							2	3	4		5	6	7		8						9		

1 TYPE NUMBER	
REX22D	Electronic circuit protector with active current limitation and automatic standard or COM mode detection

2 PANEL CUT-OUT	
T	DIN rail mounting

3 DESIGN	
A	1 load output terminals per channel, fixed current ratings x A
D	1 Load output terminal per channel, adjustable current ratings xx...xxA, via 3-position switch
E	1 load output terminal per channel, variable current ratings x A / x A, adjustable standard and COM mode

4 NUMBER OF CHANNELS	
1	1 channel
2	2 channels

5 VERSION	
1	Without physical isolation

6 SIGNAL INPUT	
0	Without signal input

7 SIGNAL OUTPUT	
0	Status output FM / Error message
1	Status output SM / Status signal

8 OPERATING VOLTAGE	
DC24V	Rated voltage DC 24 V

9 RATED CURRENT	
12A	(1 channel only)
16A	(1 channel only)
20A	(1 channel only)
10A/12A/15A	(1 channel only)
10A/16A/20A	(1 channel only)
12A/16A/20A	(1 channel only)
2A/3A/3,6A	(2 channels only, Class2)
2A/3A/4A	(2 channels only)
2A/4A/6A	(2 channels only)
3A/5A/7A	(2 channels only)
6A/8A/10A	(2 channels only)
2/3/4A-6/8/10A	(2 channels only)
1A-3,6A	(2 channels only, Class2)
1A-10A	(2 channels only)

10 APPROVALS	
[No entry if no CL2 approval required]	
-CL2	(only 2 A/ 3 A/ 3,6 A; 1 A - 3.6 A versions)

11 OPTION	
[No entry if delivery status ON]	
-A	Condition as delivered OFF (only for versions REX22D-TA1-101-DC24V-20A-A; REX22D-TD1-101-DC24V-12A/16A/20A-A; REX22D-TD2-101-DC24V-2A/4A/6A-A; REX22D-TD2-101-DC24V-6A/8A/10A-A)

12 ATEX APPROVAL	
[No entry if no ATEX approval]	
-E	ATEX/IECEx approval

Further ordering examples:
- REX22D - T D 2 - 1 0 0 - DC24V - 2A/4A/6A
- REX22D - T E 2 - 1 0 0 - DC24V - 1A-10A

OVERVIEW OF VARIANTS WITH ATEX APPROVAL
Purchase order number
REX22D-TA1-100-DC24V-12A-E
REX22D-TA1-100-DC24V-16A-E
REX22D-TA1-100-DC24V-20A-E
REX22D-TD1-100-DC24V-10A/12A/15A-E
REX22D-TD1-100-DC24V-10A/16A/20A-E
REX22D-TD1-100-DC24V-12A/16A/20A-E
REX22D-TD2-100-DC24V-2A/3A/3,6A-CL2-E
REX22D-TD2-100-DC24V-1A/2A/4A-E
REX22D-TD2-100-DC24V-2A/3A/4A-E
REX22D-TD2-100-DC24V-2A/4A/6A-E
REX22D-TD2-100-DC24V-3A/5A/7A-E
REX22D-TD2-100-DC24V-6A/8A/10A-E

REX22D-TD2-100-DC24V-2/3/4A-6/8/10A-E
REX22D-TE2-100-DC24V-1A-3,6A-CL2-E
REX22D-TE2-100-DC24V-1A-10A-E

PREFERRED TYPES

Preferred types	Short description	Preferred rated currents [A]		
REX22D-TA1-100-DC24V-...	1-channel	12	16	20
REX22D-TD1-100-DC24V-...	1-channel, adjustable 3 increments	12/16/20	-	-
REX22D-TD2-100-DC24V-...	2-channel, adjustable 3 increments	2/3/3.6	2/4/6	6/8/10
REX22D-TE2-100-DC24V-...	2-channel, adjustable 10 increments	1...10	-	-
REX22D-TE2-100-DC24V-...	2-channel, adjustable 4 increments, CL2	1...3.6	-	-

APPROVALS

APPROVALS

unit	Approval authority	Test standard	File Certificate No.	Rated voltage [V]	Rated current range [A]
REX22D-T	UL	UL 2367 UL 1310 NEC Class2	E306740	DC 24	1...20 1...3.6
REX22D-T	UL	UL 508 listed, CSA C22.2 No. 14, CSA 22.2 No. 107.1	E492388	DC 24	1...20
REX22D-T	UL	UL 121201 (Class I, Division 2, Groups A, B, C, D) CSA C22.2 No. 213	E543007	DC 24	1...20
REX22D-T	Bureau Veritas	ATEX 2014/34/EU EN 60079-0 EN 60079-7 EN 60079-15	EPS 23 ATEX 1 107 U	DC 24	fixed ratings 12, 16, 20 adjustable ratings 1...20
REX22D-T	IECEx	IEC 60079-0 IEC 60079-7 IEC 60079-15	IECEx EPS 23.0024U	DC 24V	fixed ratings 12, 16, 20 adjustable ratings 1...20
REX22D-T	UKEX	EN IEC 60079-0 EN IEC 60079-7 EN IEC 60079-15	EPS 23 UKEX 1259 U	DC 24V	fixed ratings 12, 16, 20 adjustable ratings 1...20

PM and EM – accessories, approvals see technical data of accessories. Find further information about approvals here:
https://www.e-t-a.de/approvals_en

UL APPROVALS

Operating temperature code T4
- This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or non-hazardous locations only. T5

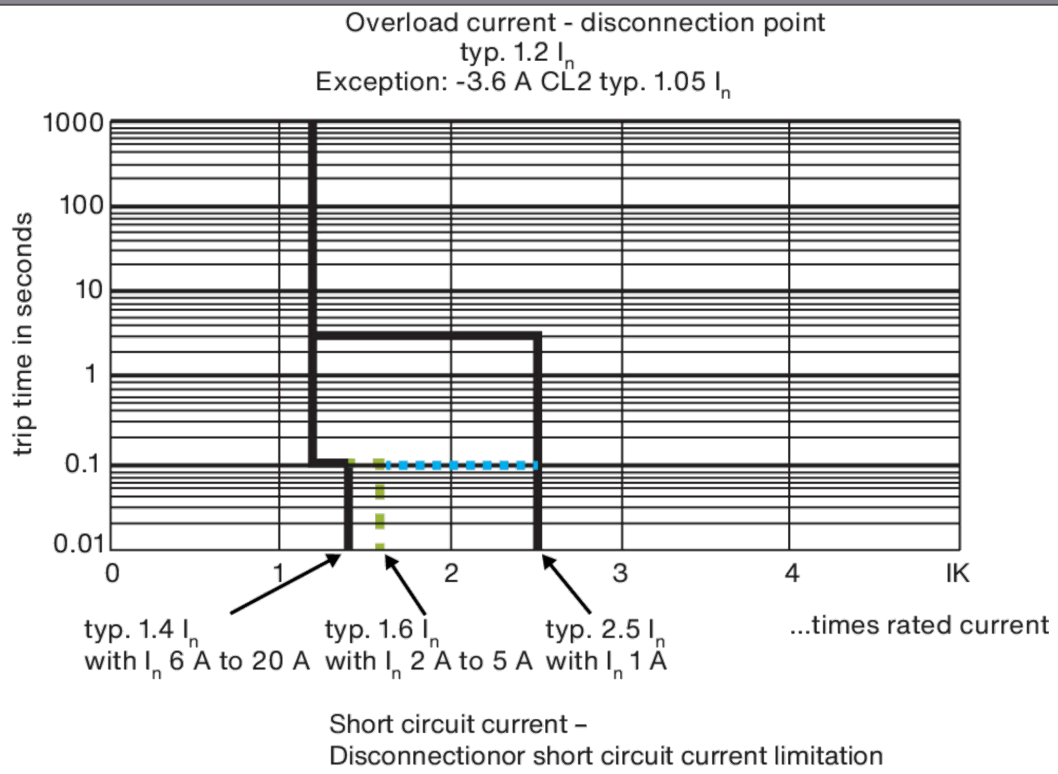
WARNING - EXPLOSION HAZARD:
- Do not connect or disconnect equipment unless power has been removed or the area is known to be non-hazardous.

This device is OPEN type equipment that must be used within a suitable end-use system enclosure, the interior of which is only accessible using a tool. The suitability of the enclosure must be checked by the local authority at the time of installation.

Wiring to or from this device, which enters or leaves the system enclosure, must utilize wiring methods suitable for Class I, Division 2 Hazardous Locations, as appropriate for the installation.

TIME-/CURRENT CHARACTERISTICS

TYPICAL TIME/CURRENT CHARACTERISTIC (T_{amb} = +23 °C, U_B = DC 24 V)



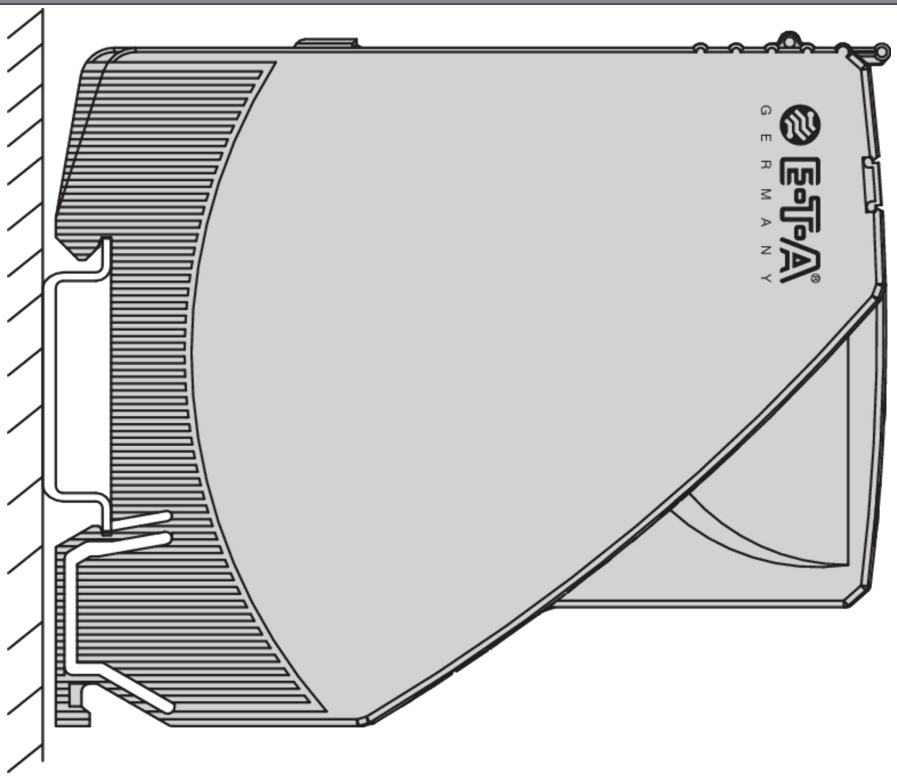
DERATING TABLE

Rated current I_n [A]	max. load current at 100 % ED [A]		
	T_a = 40 °C	T_a = 50 °C	T_a = 60 °C
2/ 3/ 3.6 1-3.6	3.6	3.6	3.2
1/ 2/ 4 2/ 3/ 4	4	4	3.6
2/ 4/ 6 3/ 5/ 7	7	6.5	5
6/ 8/ 10 1-10	10	10	8
10/ 12/ 15 12 16	16	16	14
10/ 16/ 20 12/ 16/ 20 20	20	20	16

Note on series mounting	When mounted side-by-side, the devices can only carry up to 80 % of their rated current or a higher rating must be selected (see Technical Information: https://www.e-t-a.de/ti_e).

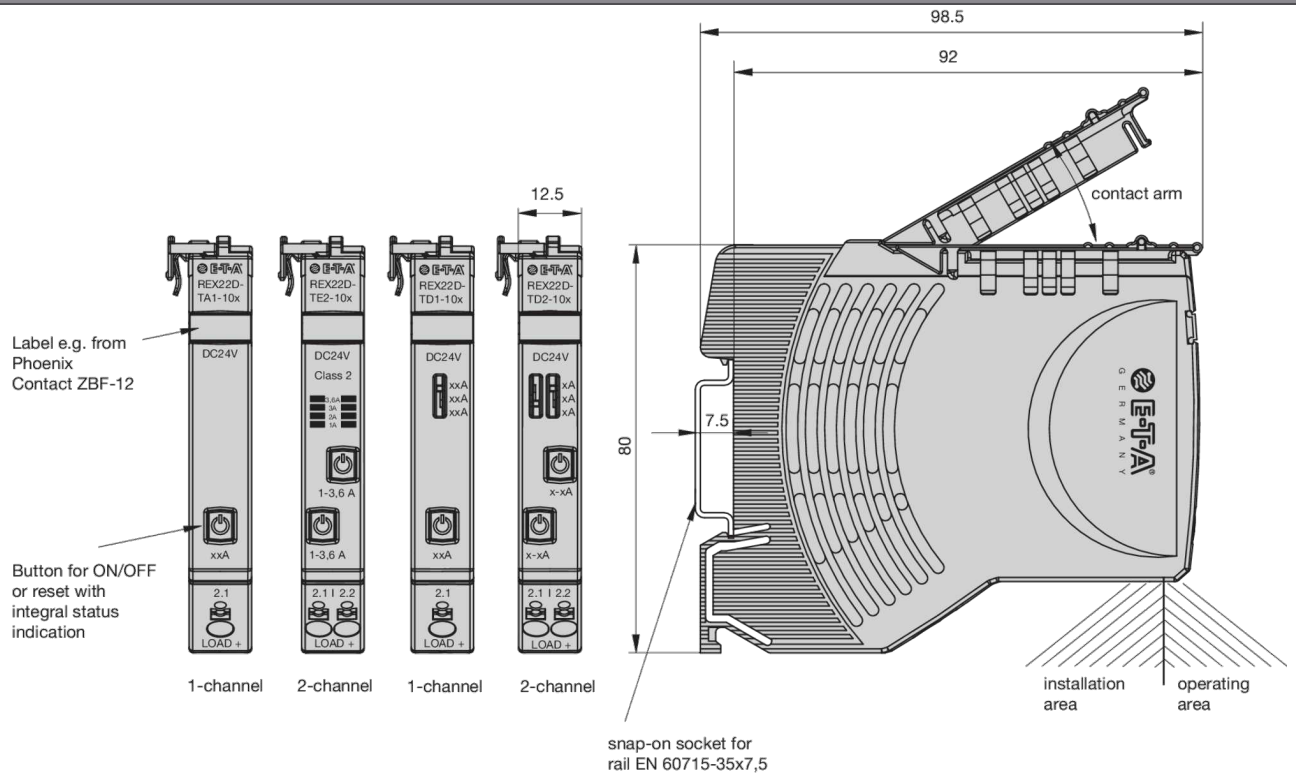
INSTALLATION INSTRUCTIONS

PREFERRED MOUNTING POSITION IN THE REX SYSTEM HORIZONTAL



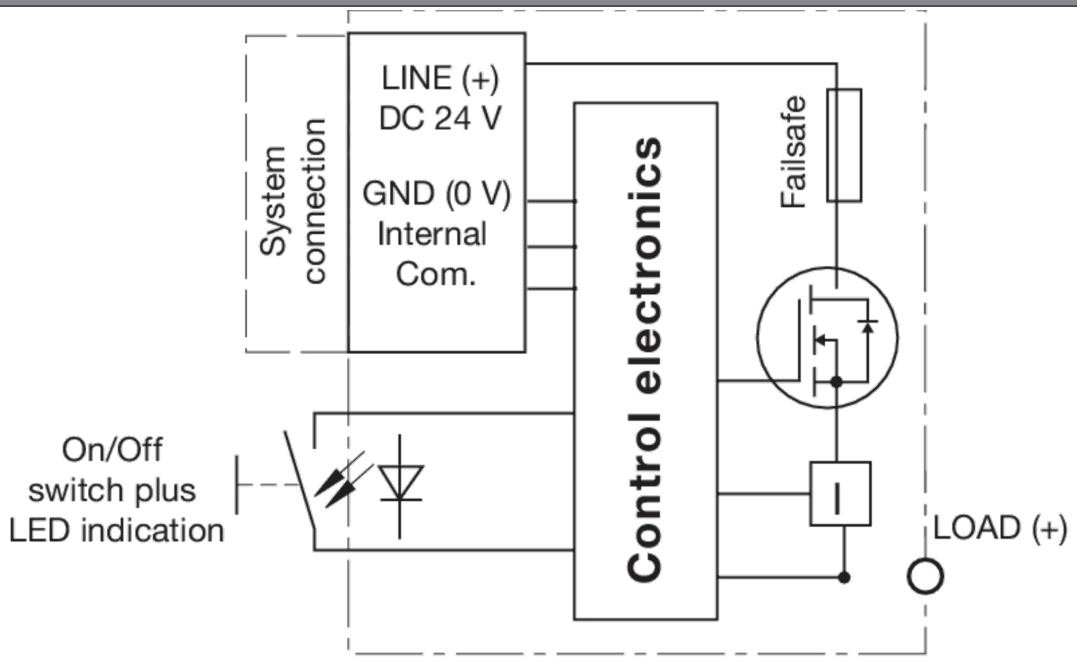
SCHEMATIC DIAGRAMS

DIMENSIONS WITH CONNECTION DIAGRAM: REX22D-TA1-XXX / REX22D-TE2-XXX/ REX22D-TD1-XXX / REX22D-TD2-XXX



SCHEMATIC DIAGRAMS

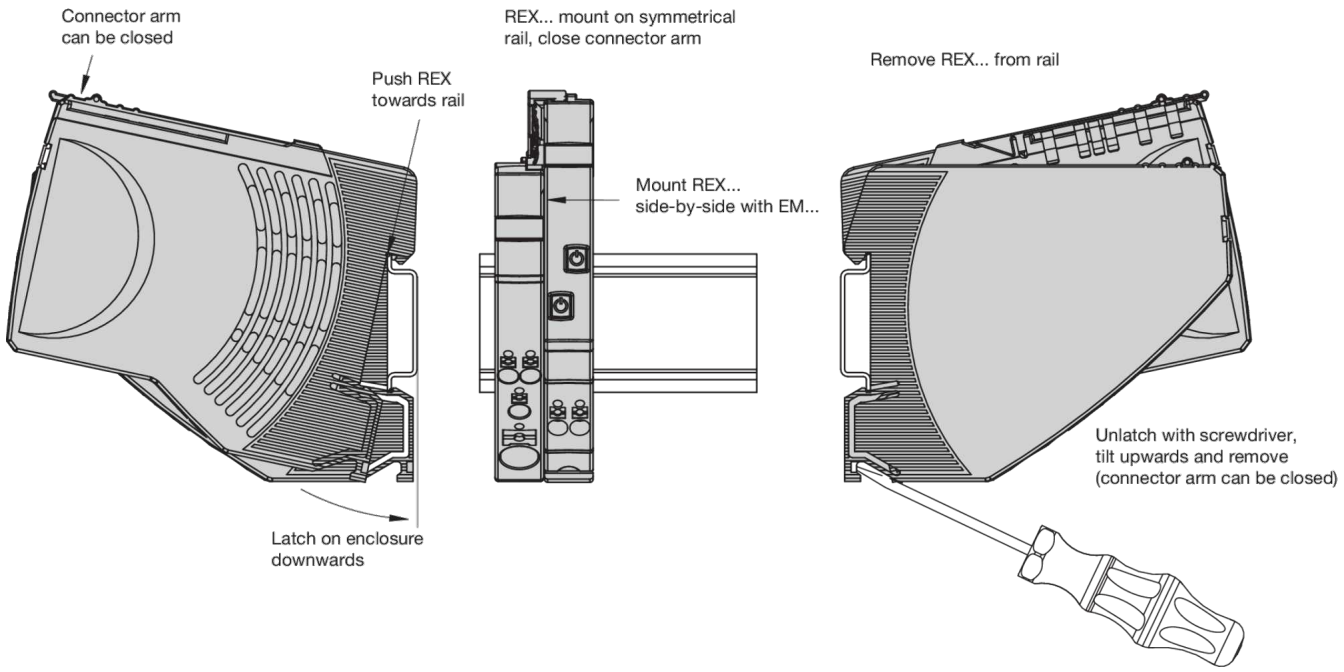
SCHEMATIC DIAGRAM REX22D-TXX-XXX



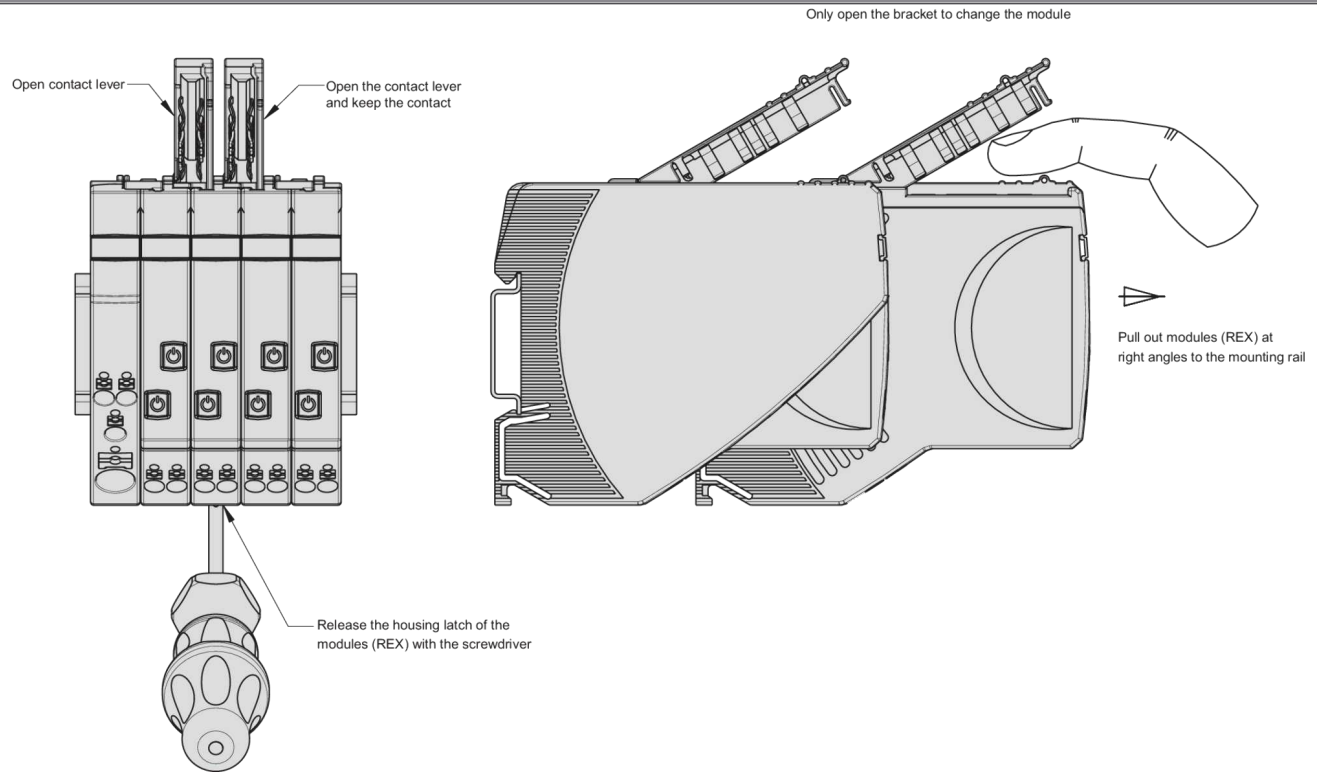
Optional manual current rating setting on the device.
In the case of 2-channel devices, it is shown twice.

APPLICATION EXAMPLES

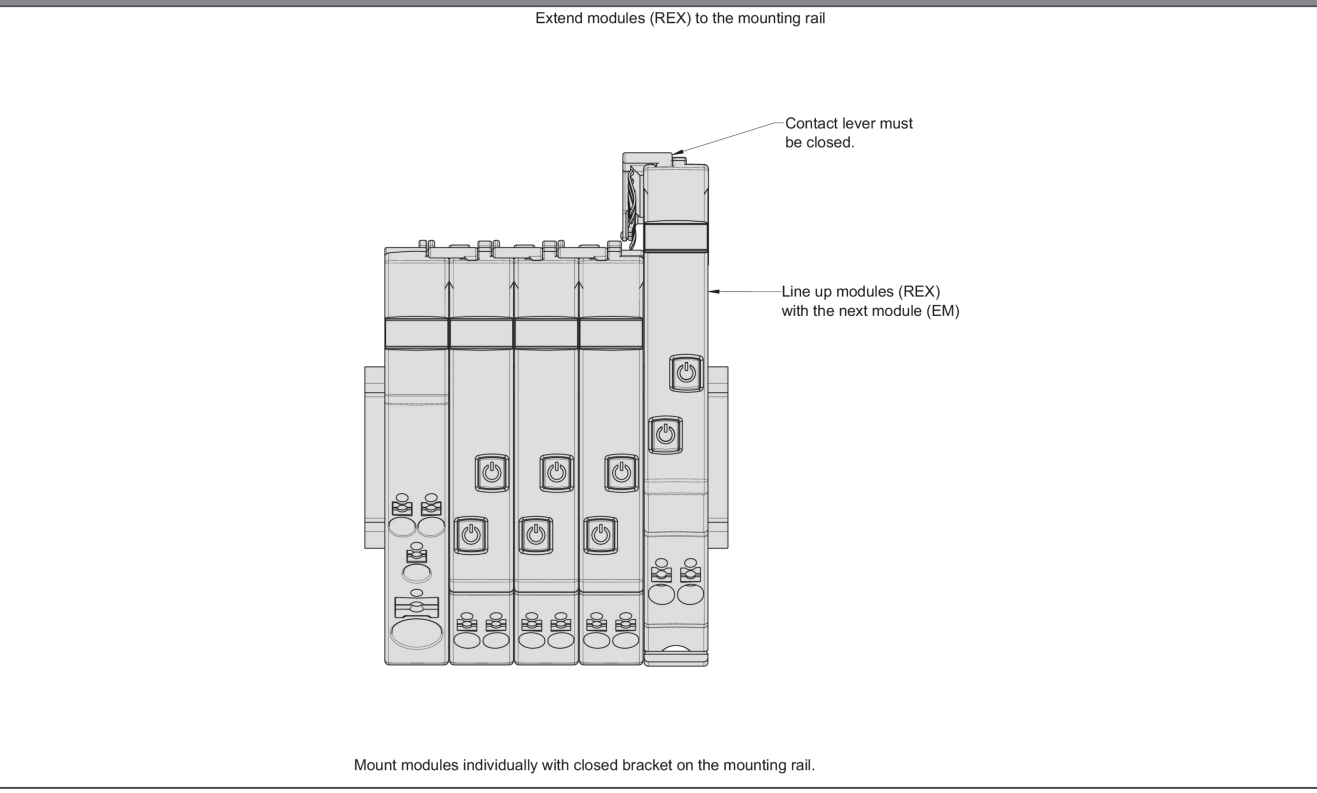
MOUNTING / DISMOUNTING ON DIN RAIL IN THE REX SYSTEM



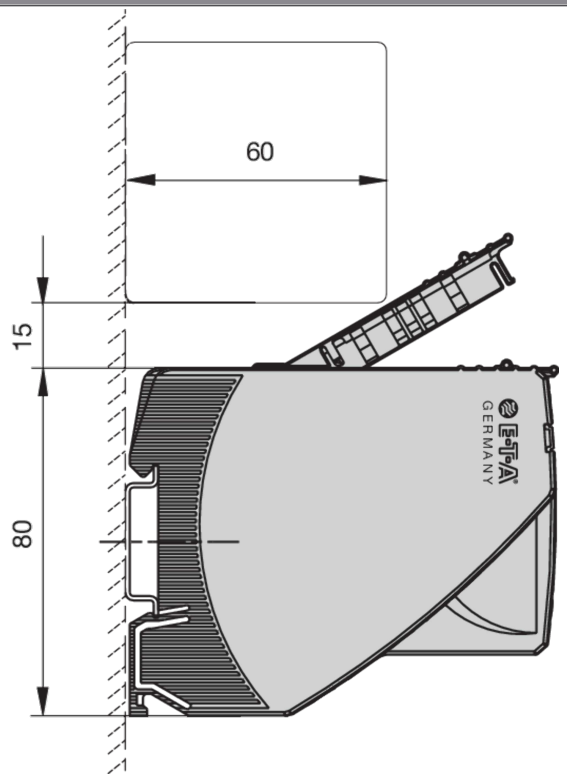
EXCHANGE IN / DISMOUNTING FROM THE REX SYSTEM NETWORK



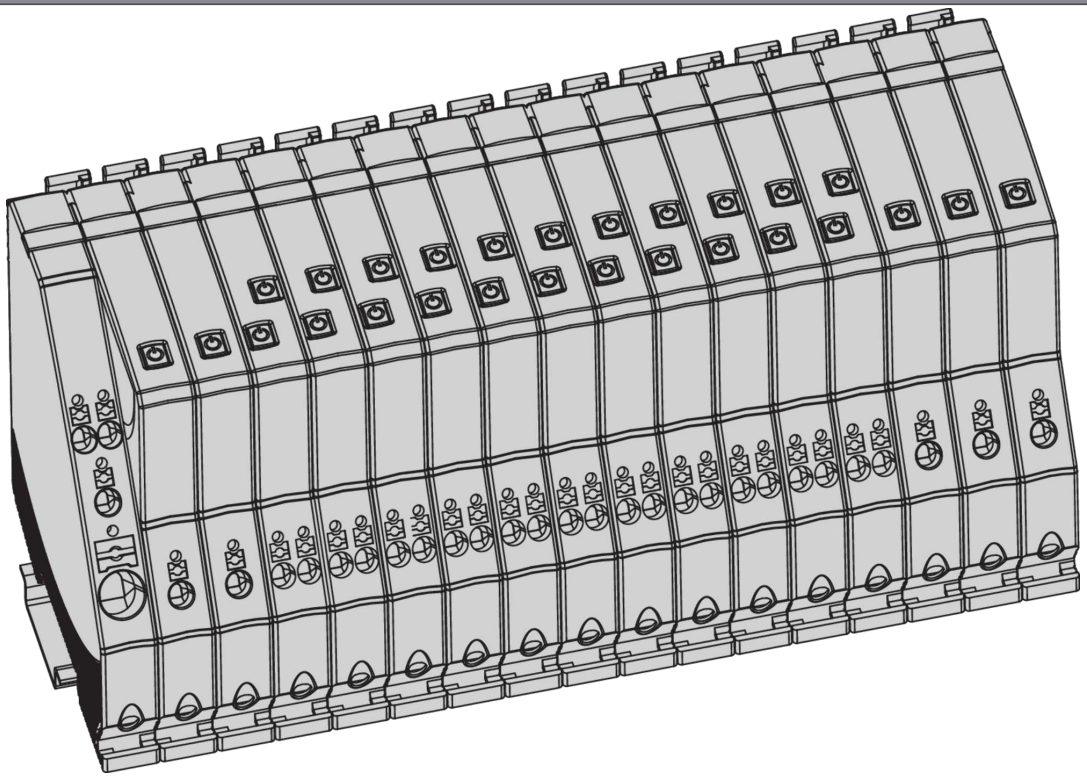
MOUNTING / EXPANSION ON DIN RAIL IN THE REX SYSTEM



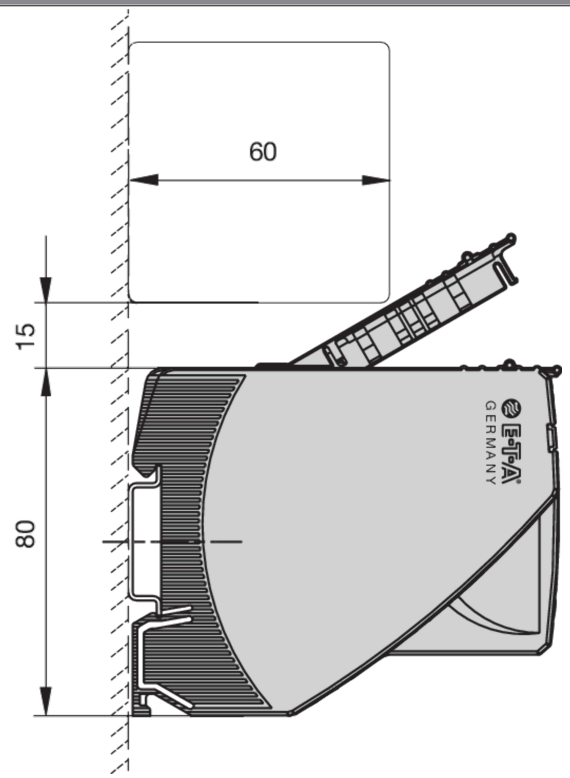
DISTANCES BETWEEN CABLE DUCT AND LEVER IN THE REX SYSTEM



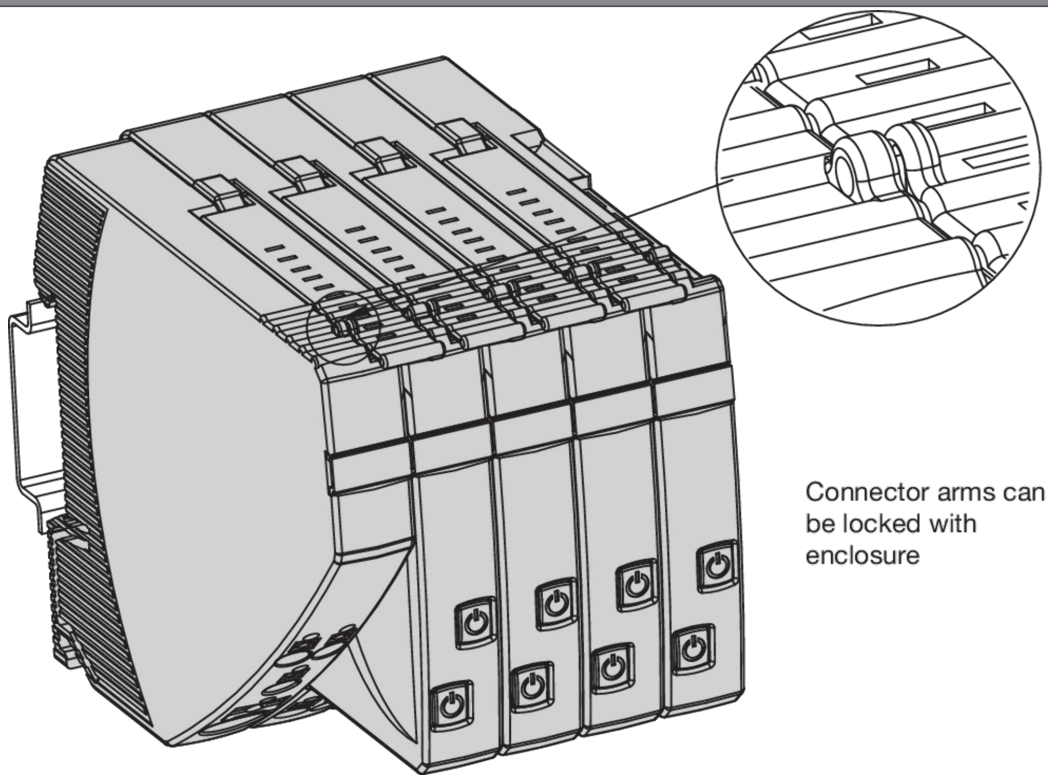
APPLICATION EXAMPLE: EM12-T WITH REX12-TA1... AND REX12-TA2...



DISTANCES BETWEEN CABLE DUCT AND LEVER IN THE REX SYSTEM



SEALING OF THE REX SYSTEM



Connector arms can be locked with enclosure

ACCESSORIES

REQUIRED ACCESSORIES

EM12D-T	The EM12D-T supply module receives the DC 24 V supply voltage, e.g. from a pulsed switch mode power supply, and distributes it to the installed intelligent circuit protectors via the integral connector arm of the REX12D/REX22D. The communication interface of the EM12D-T, which is designed as an IO link/Modbus RTU device, enables many diagnosis and control commands to be sent to a superordinate IO link/ Modbus RTU master at the control level.	
EM12-T (DC24V)	The EM12-T supply module receives the DC 24 V supply voltage, e.g. fFrom a switched mode power supply, and distributes it to the mounted circuit protectors via the integral connector arm of the REX12-T. The potential-free Si auxiliary contact in the EM12-T indicates errors and faults detected by the circuit protectors, e.g. to a superordinate control unit (CPU).	

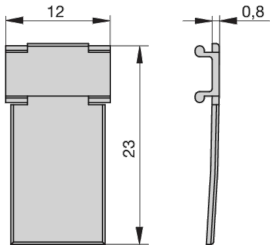
OPTIONAL ACCESSORIES

ControlPlex® Controller CPC12	The intelligent CPC12 ***ControlPlex***® system is the perfect solution for the machine building industry. The system combines the well-proven quality of a DC 24 V overcurrent protection system with the EtherNet/IP, PROFINET, EtherCAT and Modbus TCP communication options. It features permanent measuring data recording, analysing and processing. This provides the required transparency to detect changes in the production process at an early stage and initiate corrective actions in time. The integral webserver of the CPC12 bus controller allows direct access to the data of the DC 24 V power distribution. All measuring data and status information can be accessed even without using the field bus interface.	
↳ EM12-T (LINE)	The EM12-T supply module receives the DC 24 V supply voltage, e.g. fFrom a switched mode power supply, and distributes it to the mounted circuit protectors via the integral connector arm of the REX12-T.	
↳ EM12-T (GND)	The EM12-T supply module receives the DC 0 V (GND) of the supply voltage, e.g. from a switched mode power supply, and distributes it to the mounted potential distribution modules via the integral connector arm of the PM12-T.	
EM12-T (LINE)	The EM12-T supply module receives the DC 24 V supply voltage, e.g. fFrom a switched mode power supply, and distributes it to the mounted circuit protectors via the integral connector arm of the REX12-T.	
PM12-T (LOAD)	The REX system's PM12-T potential distribution modules can be divided into two main groups. Besides the + DC 24 V distribution, the 0 V minus distribution (GND) can be easily implemented in the same system. The slim modules save space and allow direct assignment of the power distribution in the system. The direct assignment can be easily displayed functionally in the related EPLAN providing support for wiring and trouble-shooting.	
EM12-T (GND)	The EM12-T supply module receives the DC 0 V (GND) of the supply voltage, e.g. from a switched mode power supply, and distributes it to the mounted potential distribution modules via the integral connector arm of the PM12-T.	
PM12-T (GND)	The REX system's PM12-T potential distribution modules can be divided into two main groups. Besides the + DC 24 V distribution, the 0 V minus distribution (GND) can be easily implemented in the same system. The slim modules save space and allow direct assignment of the power distribution in the system. The direct assignment can be easily displayed functionally in the related EPLAN providing support for wiring and trouble-shooting.	

FURTHER INFORMATION ABOUT ACCESSORIES (DRAWINGS)

ACCESSORIES

Label with cover: Y31369501
(Packaging unit: 10 pcs.)



FURTHER PRODUCTS

RELATED PRODUCTS

REX12D-T	With the compact and flexible REX system, E-T-A offers a sophisticated DC 24 V solution for protection and power distribution in mechanical and plant engineering - consisting of power supply, overcurrent protection, distribution and bus controller. The REX12D-T circuit protector provides selective protection, reacts faster than the switch mode power supply to short circuits or overloads and reliably switches on capacitive loads up to 20,000 µF. Available with fixed and adjustable current ratings from 1 A to 10 A, it fulfils not only UL508listed and NEC Class 2 but also exclusively EN 60204-1 for line protection. All REX12D-T modules support BASE and COM mode - with simple message signalling or extensive communication and diagnostics just as required. The operating mode is automatically recognised.	
REX12-T	With the compact and flexible REX system, E-T-A offers a sophisticated DC 24 V solution for protection and power distribution in mechanical and plant engineering - consisting of power supply, overcurrent protection, distribution and bus controller. The REX12D-T circuit protector provides selective protection, reacts faster than the switch mode power supply to short circuits or overloads and reliably switches on capacitive loads up to 20,000 µF. Available with fixed and adjustable current ratings from 1 A to 10 A, it fulfils not only UL508listed and NEC Class 2 but also exclusively EN 60204-1 for line protection.