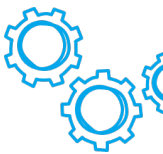




PM12-T (LOAD)

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.



TYPICAL FEATURES

- Device combination of supply module, overcurrent protection and power distribution module
- No accessories required for connecting the components
- Width per module only 12.5 mm

TYP. APPLICATIONS

Automation, machine building industry, process industry

WEB LINKS

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

YOUR BENEFITS

- Saves costs as no further accessories are required
- Saves 50 % time through innovative and flexible mounting and connection technology
- Saves space with only 12.5 mm slim modules
- Provides flexibility through facilitated assembly and disassembly and modular design

APPROVALS / CERTIFICATIONS



COMPLIANCE



GENERAL INFORMATION

SAFETY AND INSTALLATION INSTRUCTIONS



Installation must be done by a qualified electrician.



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.

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.

FURTHER INFORMATION



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

TECHNICAL DATA ($T_u = +23\text{ }^{\circ}\text{C}$, $U_b = \text{DC } 24\text{ V}$)

ELECTRICAL DATA

Rated voltage U_n	0 V (GND); DC 24 V (LOAD)
Operating voltage U_b	0...30 V (no battery-buffered applications)
Dielectric strength	Max. DC 30 V (load circuit)
Maximum rated current	20 A (per module); max. 10 A per terminal
Quiescent current I_0	Typ. 20 mA
Reverse polarity protection	Yes, without load
Power failure bridging time	10 ms (tolerated up to 10 ms)
Insulation co-ordination (EN IEC 60664)	0.5 kV / Pollution degree: 2

MECHANICAL DATA

Mounting dimensions (WxHxD)	12.5 x 80 x 98 mm (tolerances according to DIN ISO 286 part 1 IT13)
Mass	Approx. 52 g
Enclosure material	Plastic
Mounting data	DIN rail according to EN 60715-35x7.5

MOUNTING VALUES - PUSH-IN TERMINAL - PM12-T01-00-LOAD-20A

Terminal connection capacity LOAD+	Cable cross section [mm ²]	Cable cross section [AWG]	Stripping length [mm]
rigid	0.14...4	24...12	8...10
flexible	0.14...4	24...12	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

MOUNTING VALUES - PUSH-IN TERMINAL - PM12-T02-00-LOAD-20A

Terminal connection capacity LOAD+	Cable cross section [mm ²]	Cable cross section [AWG]	Stripping length [mm]
rigid	0.14...4	24...12	8...10
flexible	0.14...4	24...12	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	-30...+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, 3K3 climate class according to EN 6072196 hours at 95 % relative humidity, 40 °C
Vibration	Test according to IEC 60068-2-6 test Fc 5 g
Corrosion	Test according to IEC 60068-2-11, test Ka 96 hours at 5 % salt mist,
IP code standard	IEC 60529, DIN VDE 0470
Terminal area IP code (standard)	IP20 (Terminals)
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

P	M	1	2	-	T	0	1	-	0	0	-	L	O	A	D	-	2	0	A
1					2		3		4		5	6				7			

1	TYPE NUMBER
PM12	Potential module for REX system with PT connection technology, DC 24 V
2	MOUNTING
T	DIN rail mounting
3	VERSION
01	1 x power input, 9 x LOAD+
02	2 x separate power input, 4 x LOAD+ each
03	10 x GND / 0 V
4	ADDITIONAL FUNCTION 1
0	Without
5	ADDITIONAL FUNCTION 2
0	Without
6	OPERATING VOLTAGE
LOAD	Rated voltage DC 24 V
GND	Rated voltage DC 0...24 V
7	RATED CURRENT
20A	
8	ATEX APPROVAL
[No entry if no ATEX approval]	
-E	ATEX/IECEx approval

APPROVALS

APPROVALS EM12-T				
Approval authority	Test standard	File Certificate No.	Rated voltage [V]	for types
UL	UL 1059	E335289	DC 24	PM12-T01-00-LOAD-20A PM12-T02-00-LOAD-20A PM12-T03-00-GN-D-20A
Bureau Veritas	ATEX 2014/34/EU EN 60079-0 EN 60079-7 EN 60079-15	EPS 24 ATEX 1 287 U	DC 24	PM12-T01-00-LOAD-20A PM12-T02-00-LOAD-20A PM12-T03-00-GN-D-20A
IECEX	IEC 60079-0 IEC 60079-7 IEC 60079-15	IECEX EPS 24.0117U	DC 24V	PM12-T01-00-LOAD-20A PM12-T02-00-LOAD-20A PM12-T03-00-GN-D-20A
UKEX	EN IEC 60079-0 EN IEC 60079-7 EN IEC 60079-15	EPS 24 UKEX 1 289 U	DC 24V	PM12-T01-00-LOAD-20A PM12-T02-00-LOAD-20A PM12-T03-00-GN-D-20A

UL APPROVALS



UL 1059, File # E335289

COMPLIANCE

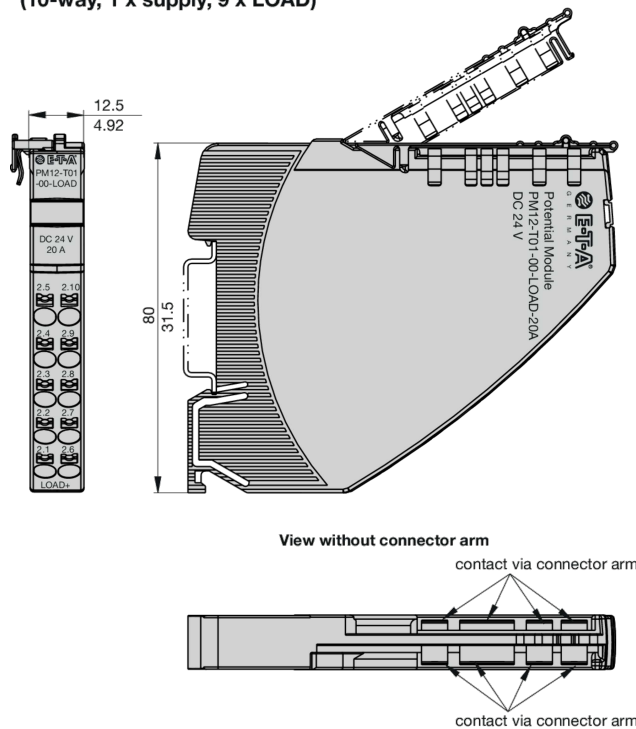


According to 2014/30/EU

DIMENSIONS

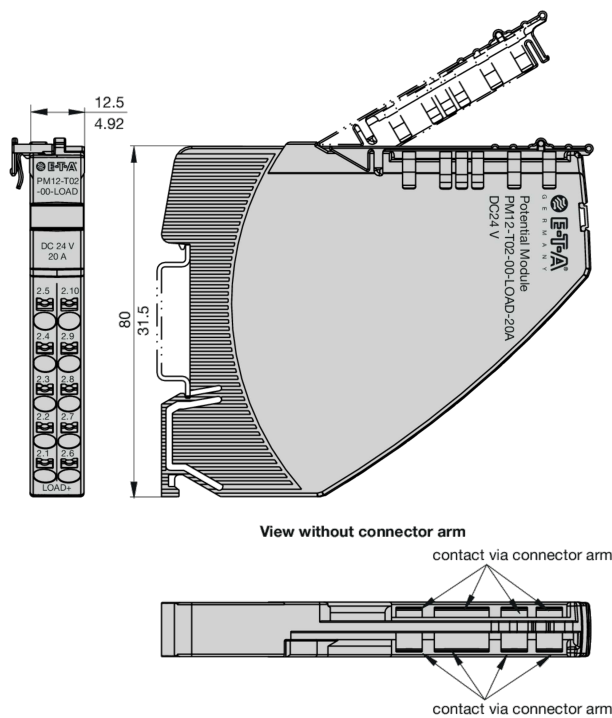
DIMENSIONS

PM12-T01-00-LOAD-20A potential module – LOAD
(10-way, 1 x supply, 9 x LOAD)



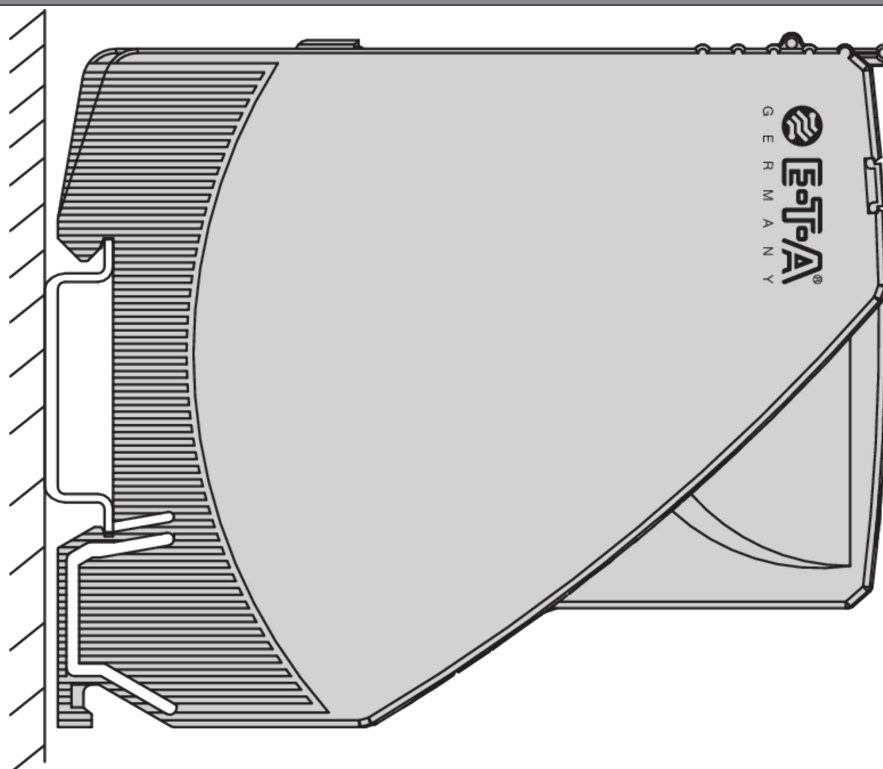
DIMENSIONS

PM12-T02-00-LOAD-20A potential module – LOAD
(2 x 5-way, 1 x supply and 4 x LOAD each)



INSTALLATION INSTRUCTIONS

PREFERRED MOUNTING POSITION IN THE REX SYSTEM HORIZONTAL

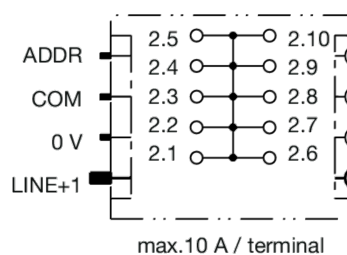


SCHEMATIC DIAGRAMS

SCHEMATIC DIAGRAM

Schematic diagram

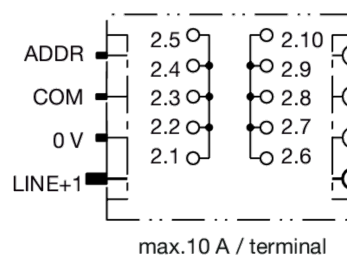
PM12-T01-00-LOAD-20A



SCHEMATIC DIAGRAM

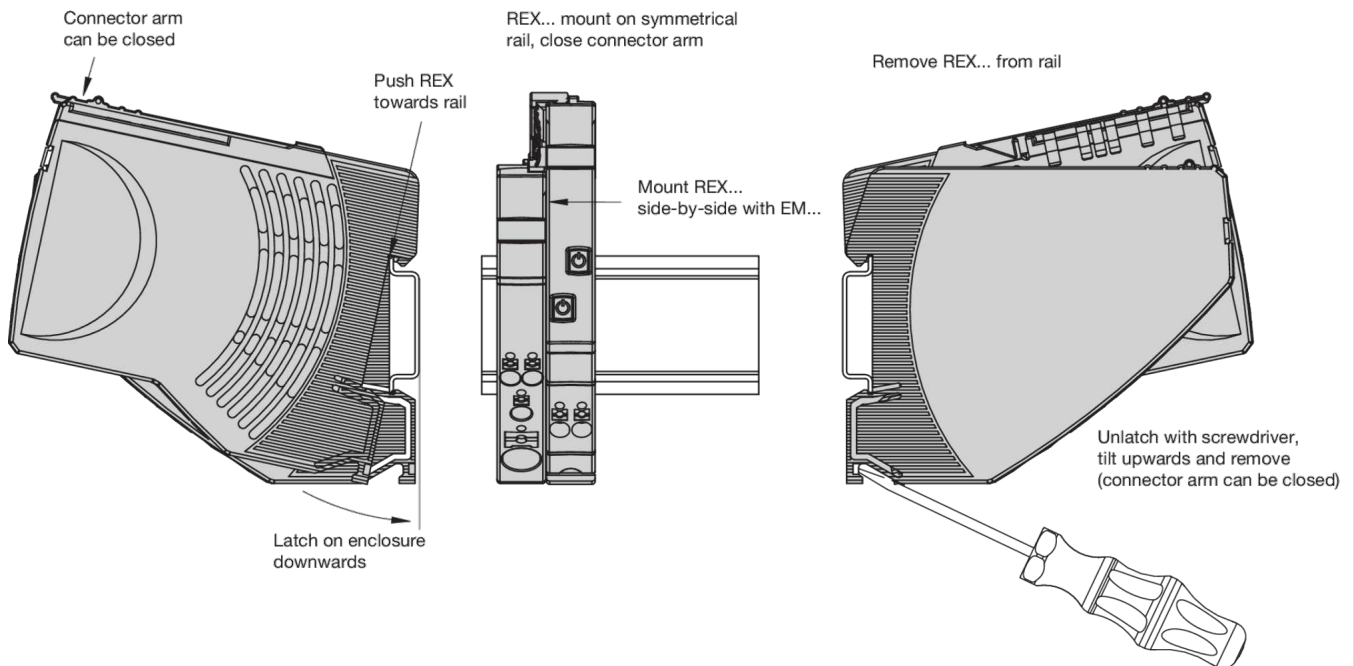
Schematic diagram

PM12-T02-00-LOAD-20A

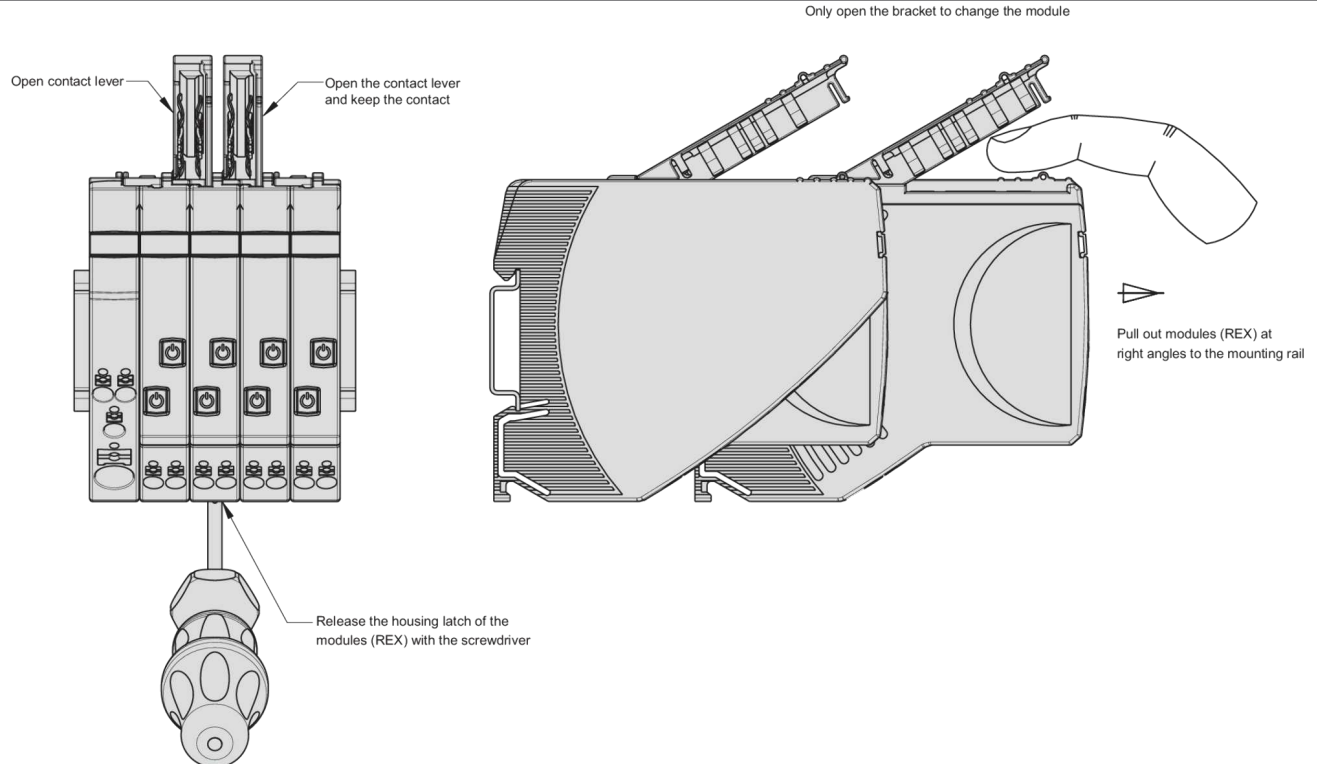


APPLICATION EXAMPLES

MOUNTING / DISMOUNTING ON DIN RAIL IN THE REX SYSTEM

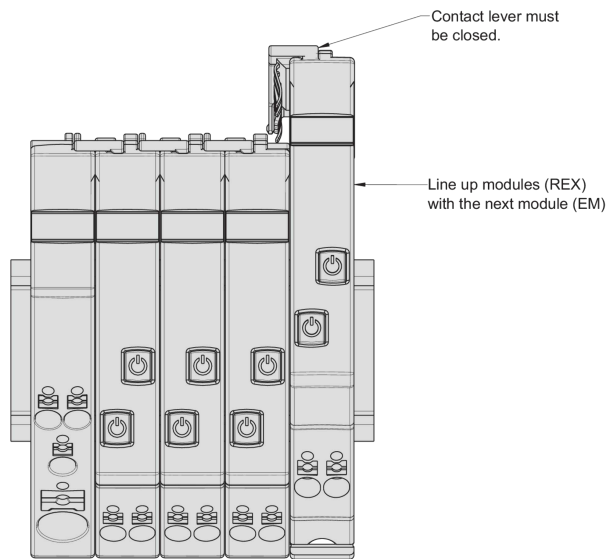


EXCHANGE IN / DISMOUNTING FROM THE REX SYSTEM NETWORK



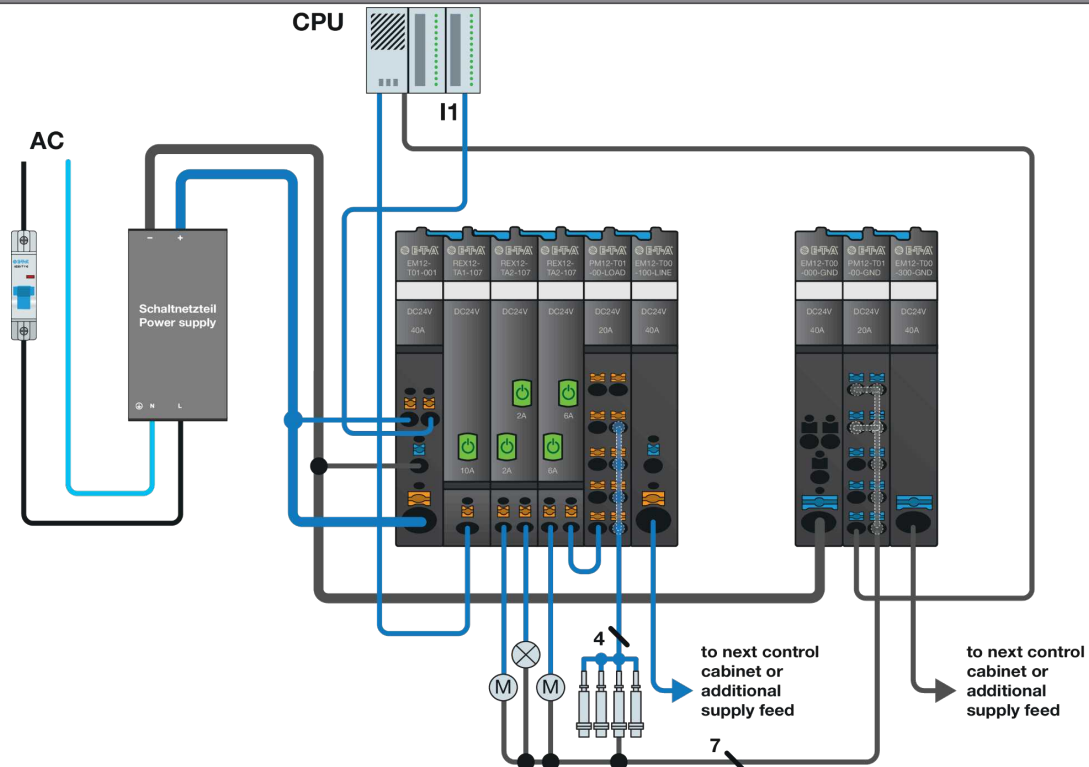
MOUNTING / EXPANSION ON DIN RAIL IN THE REX SYSTEM

Extend modules (REX) to the mounting rail

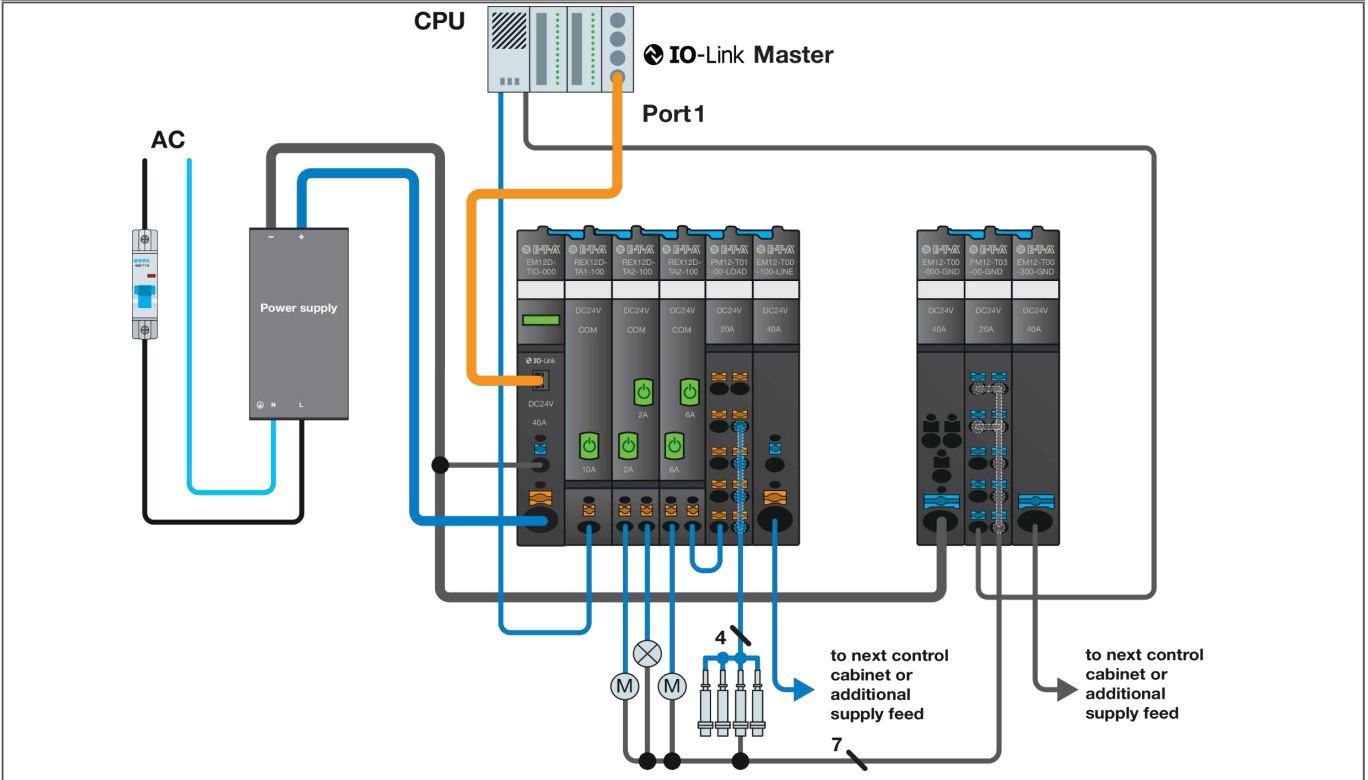


Mount modules individually with closed bracket on the mounting rail.

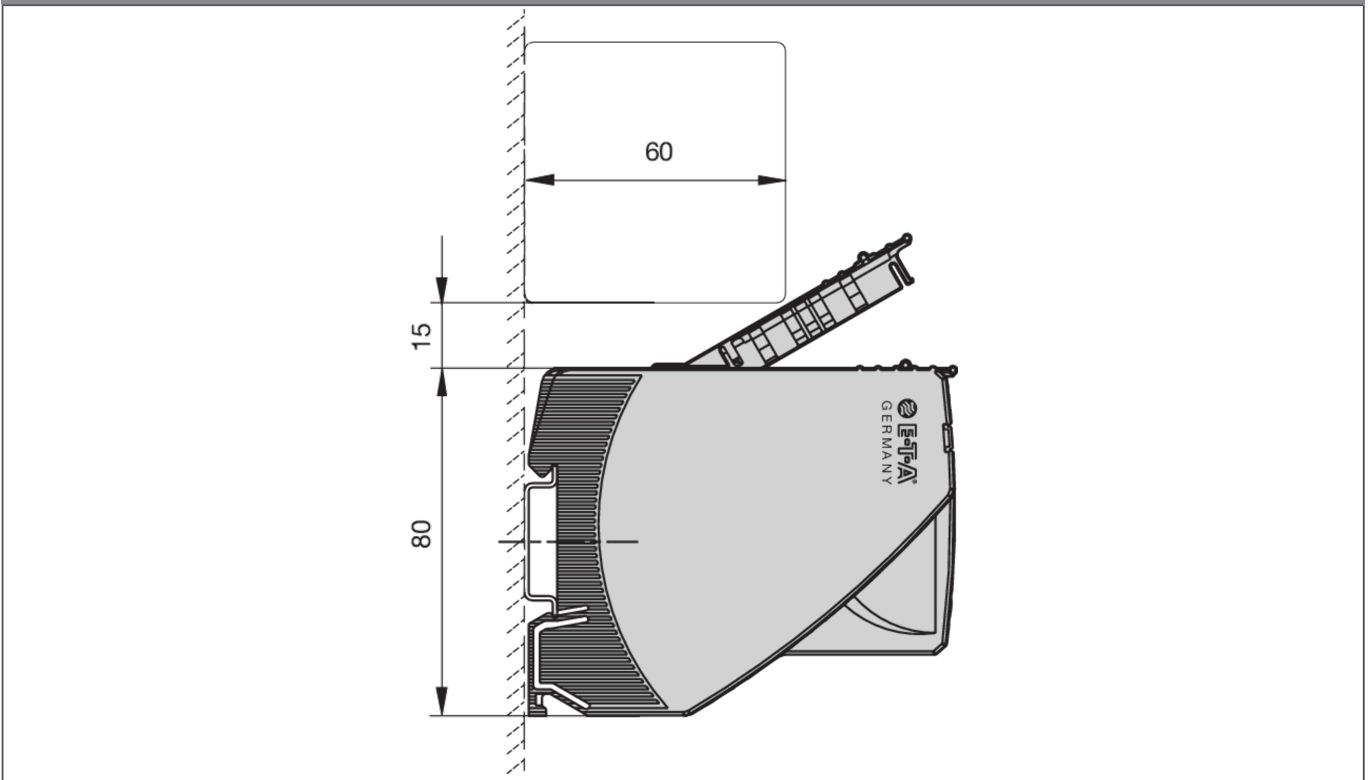
APPLICATION EXAMPLE: EM12-T ... WITH REX12-TAX... AND PM12-...



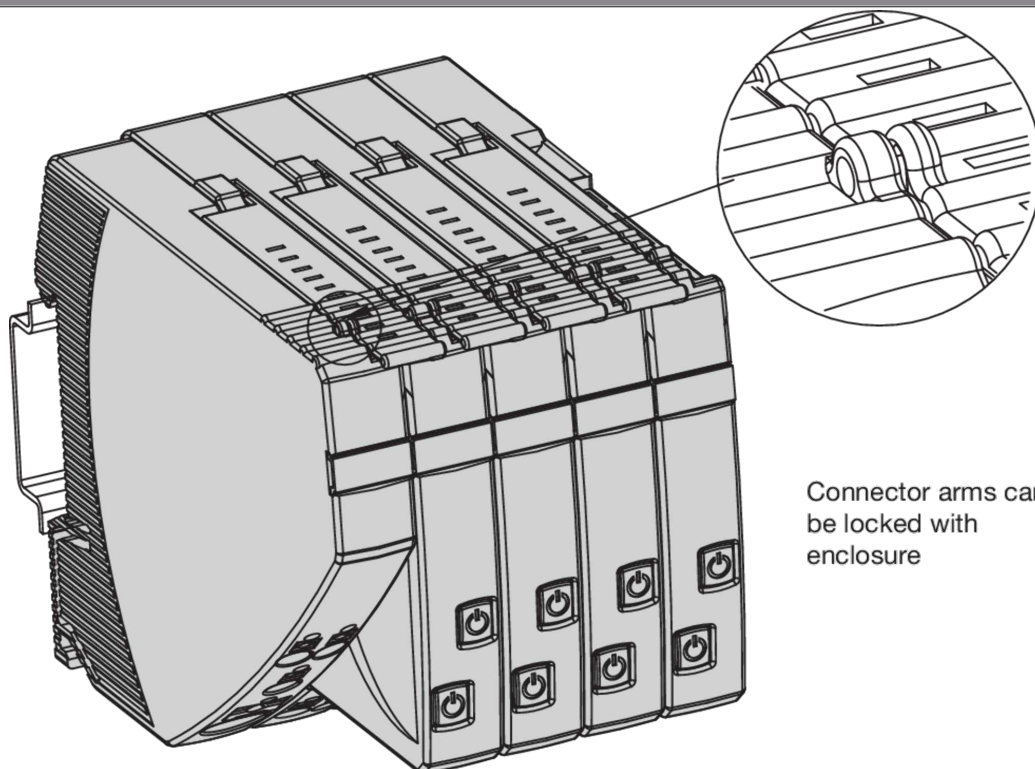
APPLICATION EXAMPLE: EM12D-T... WITH REX12D-TXX... AND PM12-...



DISTANCES BETWEEN CABLE DUCT AND LEVER IN THE REX SYSTEM



SEALING OF THE REX SYSTEM



Connector arms can be locked with enclosure

ACCESSORIES

OPTIONAL ACCESSORIES FROM

<u>REX12D-T</u>	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 UL508 listed 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.	
<u>REX12-T</u>	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 UL508 listed and NEC Class 2 but also exclusively EN 60204-1 for line protection.	
<u>REX22D-T</u>	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 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.	

All information and data given on our products are accurate and reliable to the best of our knowledge, but E-T-A does not accept any responsibility for the use in applications which are not in accordance with the present specification. E-T-A reserves the right to change specifications at any time in the interest of technical improvement. Dimensions are subject to change without notice. Please enquire for the latest dimensional drawing with tolerances if required. All dimensions, data, pictures and descriptions are for information only and are not binding. Amendments, errors and omissions excepted. Ordering part numbers may differ from the device marking.