Installation and commissioning

Instructions for installation and commissioning.

Instruction No: 350-301

Name, article number and e-number

Table 1. Name, article number and email number

Name	Item number	E-number (sv)
Relay/Communication Cards ECO Series (CEO-FLX)	A-AL1224CEO01	52 137 85

Product image

Technical description

Alarm and communication card intended as an option for ECO series products with CEO-FLX motherboards. The card is used to transmit alarm, status and monitoring information between the ECO device and external systems. It is equipped with two relay outputs (NO/NC/COM). One relay signals a power outage, and the other acts as a buzzer alarm (fuse failure as factory default). Both relay outputs can be set and customized via PowerWatch depending on your needs. The card is fully compatible with PowerWatch. Installing the board enables configuration and monitoring from the ECO unit to the PowerWatch, providing extended functionality for operational control and event management. The alarm and communication board is mounted directly on the CEO-FLX board. It is intended for installations where flexible

Table 2. Quick Facts

Quick Facts	Data
Supply voltage (V)	24 V DC or 12 V DC

Where does the card fit?

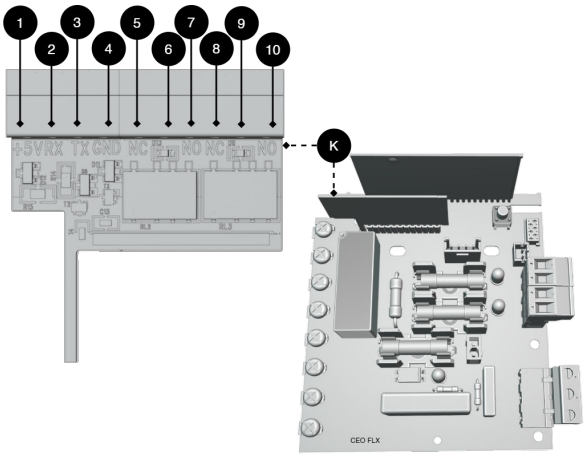
The table shows where Relay/Communication Cards ECO Series (CEO-FLX) fit in for power supply.

Table 3. Where does the card fit?

Name	Item No.	E-number
ECO 24V 10A M	ME01C10424P100	52 137 83
ECO 24V 5A L	LA01C10424P050	52 137 81
ECO 24V 10A L	LA01C10424P100	52 137 82

Alarm and communication board installation and card description

The alarm card is used to transmit alarm and status information between the CEO-FLX card and external systems. It provides the ability to send alarms via relay outputs as well as



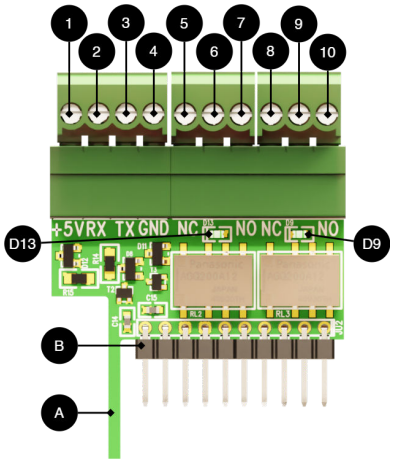


Table 4. Alarms and communication cards

No.	On the PCB	Explanation
K	-	Alarm board that mounts to the CEO-FLX board, as the picture shows.
A	-	Support pillar for stability and to prevent incorrect connection.
B	-	Pin strip.
D13	D13	LED indicates relay idle state (green lit).
D9	D9	LED indicates relay idle state (green lit).
1	+5V	Connection to PowerWatch.
2	RX	
3	TX	
4	GND	
5	NC	Relay output 1 — normally closed (breaking contact).
6	COM	Relay output 1 — common contact.
7	NO	Relay output 1 — Normally Open (closing contact).
8	NC	Relay output 2 — normally closed (breaking contact).
9	COM	Relay output 2 — common contact.
10	NO	Relay output 2 — normally open (closed contact).

Plug in alarm

Alarms are plugged into terminal block, see circuit board overview.

Table 5. Alarms and communication cards

No.	On the Map	Alarm type	Explanation
5	NC	Mains failure alarm (10 seconds delay).[a.]	Relay output 1 — normally closed (breaking contact).
6	COM		Relay output 1 — common contact.
7	NO		Relay output 1 — normally open (closed contact).
8	NC	Summary alarm, Fuse failure as factory reset.[b.]	Relay output 2 — normally closed (breaking contact).

No.	On the Map	Alarm type	Explanation
9	COM		Relay output 2 — common contact.
10	NO		Relay output 2 — normally open (closed contact).

[a.] Factory setting, adjustable in PowerWatch

[b.] Factory setting, adjustable in PowerWatch.

Plug in PowerWatch

PowerWatch plugs into terminal block, see circuit board overview.

Table 6. Alarms and communication cards

No.	On the Map	Explanation
1	+5V	Connection to PowerWatch.
2	RX	
3	TX	
4	GND	

Fitting

TIP

The battery backup does not normally need to be voltage-free during assembly. Be careful not to short-circuit any component

- Plug in alarms before mounting the board.
- Press the card firmly onto the motherboard in the battery backup. Make sure the strut (A) slides frictionlessly before fully depressing the board

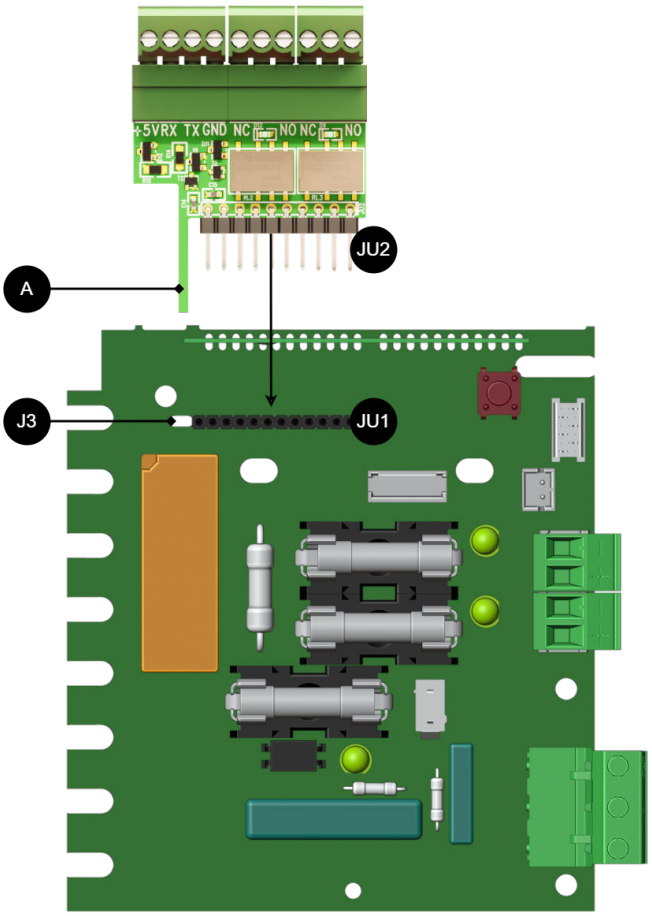
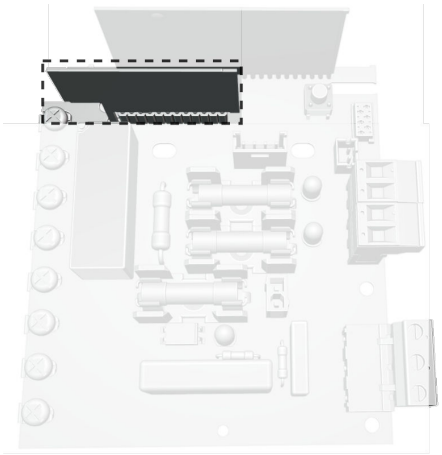


Table 7. Fitting

Letter/ on printed circuit board	Explanation
JU1	Pin strip on control board.
J3	Hole for brace (A).
A	Strut.
JU2	Pin strip on relay/communication board.

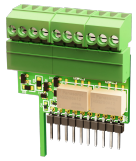
When the board is assembled, it sits in front of the vertical board on the control board.



Product sheet - power supply / battery backup

Product sheet - power supply from Milleteknik

PRODUCT IMAGE



NAME, ARTICLE NUMBER AND E-NUMBER

Table 8. Name, article number and email number

Name	Item number	E-number (sv)
Relay/Communication Cards ECO Series (CEO-FLX)	A-AL1224CEO01	52 137 85

TECHNICAL DESCRIPTION

Alarm and communication card intended as an option for ECO series products with CEO-FLX motherboards. The card is used to transmit alarm, status and monitoring information between the ECO device and external systems. It is equipped with two relay outputs (NO/NC/COM). One relay signals a power outage, and the other acts as a buzzer alarm (fuse failure as factory default). Both relay outputs can be set and customized via PowerWatch depending on your needs. The card is fully compatible with PowerWatch. Installing the board enables configuration and monitoring from the ECO unit to the PowerWatch, providing extended functionality for operational control and event management. The alarm and communication board is mounted directly on the CEO-FLX board. It is intended for installations where flexible

Table 9. Quick Facts

Quick Facts	Data
Supply voltage (V)	24 V DC or 12 V DC

AREAS OF APPLICATION

Areas of application	Yes	No
PowerWatch compatible	✓	
Provides functionality that enables alarm class 2 together with compatible ECO products.	✓	

ELECTRONICS

Table 10. Printed circuit boards and Internal power consumption

Circuit Boards	Internal power consumption	Other. info
Relay/Communication ECO (CEO-FLX)	Data is missing.	-

Table 11. Electrical data

Electrical data	Data
Supply voltage (V)	24 V DC or 12 V DC
Standby consumption	Data is missing.

ALARM AND PROTECTION

Table 12. Alarm and protection

Alarm and protection	Yes	No
Power Outage Alarm	✓	
Summary alarm in case of fuse failure	✓ Can be set in PowerWatch.	

COMMUNICATION AND INDICATIONS

Table 13. Communication and Indications

Communication and Indications	Yes	No	Other. info.
Communication	✓		Communication with the parent system is not supported.
PowerWatch[a.]	✓		
Indicators/LEDs	✓		

[a.]PowerWatch consists of a cable and software, it is ordered separately.

Table 14. PowerWatch Ordering Information

Name	Item No.	E-number
PowerWatch	A-OT0000UPG02P2V3P3	52 137 06

ENCLOSURE AND MECHANICS

Table 15. Enclosure and Mechanics

Enclosure and Mechanics	Data
Enclosure	Does not have enclosure

DIMENSIONS, WEIGHT AND PACKAGING INFORMATION

Table 16. Dimensions

Dimensions, (WxHxD).	Dimensions with packaging[a.]
37 x 37 x 10mm	100 x 210 x 155 mm.

[a.]Dimensions (WxHxD) of product and packaging may differ, this is because the product may be oriented differently in the package.

Table 17. Weight

Net weight	Weight with packaging
0.1 kg	0.2 kg

Table 18. Packaging

Packaging	Info
Packaging	Cardboard and impact protection in cardboard.
Quantity in pack	1 pc.
Packaging Type (GS1 T0137)	BX box.

ASSEMBLY, INSTALLATION AND ELIGIBILITY REQUIREMENTS

Table 19. Fitting

Fitting
In product (optionally fitted in compatible product).

Table 20. Installation

Installation	Yes	No	Other. info
Installed in product.	✓		In order for the warranty to be valid, options may only be installed in compatible products.

THE ACCESSORIES FITS IN

Table 21. Number of cards that can fit in power supply

Product Series	Enclosure Size	Number of cards that can fit
ECO	M[a.]	1
ECO	L	1

[a.]The device must have CEO-FLX mother/control board.

OPERATION AND MAINTENANCE

Table 22. Operation

Operation	Data	Other. info
Environment	Indoor environmental class 1.	-
Operating temperature (recommended)	+15°C to +25°C	
Operating temperature (permissible)[a.]	+5°C to +40°C	Class 1 according to EN 50131-6/ EN 60839-11

[a.]Specifies the permissible ambient temperature range in which the product can operate without damage. See also table on battery life.

Table 23. Maintenance

Yes	No	Interval	Other. info
	✓		Maintenance-free.

Table 24. Reference table: environmental classes according to EN 50130-5 (referred to in EN 50131-6)

Class	Type	Temperature range
Environmental Class 1	Heated indoors (type office/residence).	+5°C to +40°C
Environmental Class 2	Generally indoors (type warehouses/stairwells, not temperature controlled).	-10°C to +40°C
Environmental class 3	Protected outdoors.	-25°C to +50°C
Environmental class 4	Generally outdoors.	-25°C to +60°C

CERTIFICATIONS AND APPROVALS

Table 25. Approved according to

Complies with	Directives
Emissions	
Immunity	EN61000-6-2:2005, EN61000-4-2, -3, 4, -5, -6, -11 SS-EN 50130-4:2011 Edition 2, EN50131-6
C.E.	CE marking according to (EC) 765/2008
EMC	EMC Directive 2014/30EU
Electric (LVD)	Low Voltage Directive: 2014/35/EU

ENVIRONMENTAL DATA

Table 26. Environmental data

Environmental data	J/N	Informaţie	Other. info.
Building Product Declaration (BPD)	✓	Yes, see iBvd at www.milleteknik.se.	-
REACH Information Obligation (EC) No 1907/2006	✓	Yes, see the DoC at www.milleteknik.se The product complies with REACH Regulation (EC) No 1907/2006.	If empty, the product is not covered.
SVHC substances, CAS/EC	✓	Yes, lead, 7439-92-1/231-100-4	For text, see iBvd at www.milleteknik.se. If blank, substance is missing.

Environmental data	J/N	Informaţie	Other. info.
Subject to the RoHS Directive, (EU) 2015/863)	✓	Yes, see the DoC at www.milleteknik.se	
WEEE 2012/19/EU	✓	The product contains electrical components or wiring and is covered by the WEEE Directive (2012/19/EU).	If empty, the product is not covered. End-of-life products must be returned to a recycling centre
Battery Regulation (EU) 2023/1542	✗		
SCIP No 2008/98/EC	✓		If empty, no SCIP number is needed.
Conflict minerals (EU) 2017/821	✗/✗/✗/✓	No=Gold, Tungsten, Tantalum, Cobalt. Yes=Tin	Tin in solders in printed circuit boards purchased through a Swedish supplier.
Contains nanomate-rials: EC 1272/2008	✗	The product does not contain nanomaterials.	-
Ecodesign 2009/125/EC	Milleteknik's products are intended for professional use and are therefore not directly covered by the Ecodesign Regulation (EU 2019/1782). As some components may be covered, we nevertheless disclose relevant information[a.], where applicable, to provide our customers with confidence in their choice.		
Machine Directive 2006/42/EC	The product is part of electrical systems, is subject to the relevant electrical and safety directives and is not a machine according to the Machinery Directive (2006/42/EC). Will be replaced by Machinery Regulation (EU) 2023/1230, which will apply in 2027.		

[a.] Standby consumption and power.

CE

The product is designed for a long service life, which reduces the environmental impact. End-of-life products are handed over to the nearest recycling centre.

DELIVERY TIME, WARRANTY AND TERMS

Table 27. Delivery time, warranty and terms

Delivery time, warranty and terms	Info
Warranty period[a.]	The product has a two (2) year warranty against manufacturing defects.
Special warranty conditions	See also general terms and conditions.
General Terms and Conditions	ALEM09 with exceptions, see: www.milleteknik.se/conditions/
Support	Telephone support and email support during the warranty period are free of charge. For spare parts that are not covered by warranty, there is a charge
Delivery and stock	
Delivery time[b.]	2 working days. Or as per agreement. Delivery from factory, transportation time is added.
Storage	Temperate environment/frost free.

[a.] If the device is purchased through a wholesaler or other supplier, other warranty conditions may apply

[b.] In the case of larger orders, delivery time increases, acc. to agreement.

MANUFACTURER AND COUNTRY OF ORIGIN

Table 28. Manufacturer and country of origin

Manufacturer and origin	Info
Manufacturer[a.]	Milleteknik AB
Country of origin	Sweden

[a.] Manufacturer is the trademark indicated on the product, regardless of what is stated in this product sheet.

CONTACT

Table 29. Contact

Department	Contact
Switchboard	031-340 02 30
Support and technical issues	support@milleteknik.se
Sales	sales@milleteknik.se
WWW	www.milleteknik.se
Address	Ögärdesvägen 8B, 433 30 Partille

ABOUT THIS INFORMATION

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