

## POE TECHNICAL SPECIFICATIONS

### PoE Switch 4p FLX S+



PoE switch with 4 PoE ports.

### Technical specifications

These technical specifications are subject to change without notice.

### Name, article number and e-number

Name	Article number	E-number (SV)
PoE Switch 4p FLX S+	FS01C10048P02504PU	5171952

### More information



### About PoE from Milleteknik

The series is designed to power PoE devices such as access systems, surveillance cameras and other equipment that can be operated with Power over Ethernet. Through its function as a battery backup, the PoE device can continue to be powered in the event of a power failure.

PoE switch 4p M, PoE switch 4p FLX S+ and PoE switch 4p FLX M+ are for security systems where a, reliable power supply with battery backup and PoE function is needed. Our PoE have something we call "controlled charging", which is a safety function that means that batteries are not charged with more than 0.5 A. By controlling the charging of batteries, the lifespan of batteries is significantly extended.

The PoE Switch 4p Expansion kit is for expanding the number of PoE ports in PoE switch 4p FLX S+ and PoE switch 4p FLX M+.

### POE SWITCH 4P FLX S+

Power supply with backup power to power PoE devices such as surveillance cameras and other PoE powered devices. The power supply has batteries that keep powering on when the power grid goes down. Long life, energy efficient and support is available if something goes wrong, now or in 10 years.

### Power over Ethernet from Milleteknik

- PoE for security applications with the need for power supply with backup power.
- Proven, reliable technology.
- For fixed installation.
- Swedish made.

## Limitations



### IMPORTANT

Note that 802.3at type2 is not supported, as the PoE card lacks a handshake function for type 2. [Read more.](#) [2]

The product is tested and verified against Axema access systems and Dinbox access systems and is therefore recommended for use only with these systems. The product is currently not recommended for other products that have an af/at handshake procedure. The product deviates from standard IEEE 802.3af per port and IEEE 802.3at as the power is modified to be used together with Axema passer system and Dinbox passer system, which leads to shortcomings, (PoE-connected product does not start), against products that require handshake.

## Areas of use

- Power supply for camera surveillance and other applications that can be powered by PoE.
- Security applications powered by PoE that need backup power in the event of a power outage.

## Alarm

The device alarms for:

Low battery voltage, low battery voltage in the event of a broken fuse on the load output.

## Fixed installation

The product is intended for fixed installation. The battery backup must be installed by a qualified installer.

## Battery types

The ECO series can be used with AGM batteries. Do not mix types of batteries, brand or used and new batteries.

## REGULATIONS AND CERTIFICATIONS

### Requirements that the product meets

EMC:	EMC Directive 2014 / 30EU
Electricity:	Low voltage directive: 2014/35 / EU
PoE:	IEEE 802.3af, IEEE 802.3at/30.8 W Note that 802.3at type2 is not supported, as the PoE card lacks a handshake function for type 2.
CE:	CE directive according to: 765/2008



## EXPECTED OPERATING TIME IN THE EVENT OF A POWER FAILURE ( WITH NEW BATTERIES)

PoE	Bat-tery	Power 15.4 W	Power 30.8 W	Power 62 W	Power 90 W	Power 100 W	Power 120 W	Power 180W	Power 240 W
PoE switch 4p FLX S+ (48 V)	4 pcs 7.2 Ah	18 h 30 min.	8 h 30 min.	3 h 45 min.	-	2 h 10 min.	1 h 45 min.	-	-

## CIRCUIT BOARDS - TECHNICAL DATA

### Technical data: CEO 3

#### CEO3 V 2.5

Info	Explanation
Article title	CEO3
Product description	CEO 3 is the next generation circuit board for simpler battery backups. Advanced functions that were not previously possible in simpler battery backups are now available as standard. CEO 3 is a reliable heart in simpler battery backups with fewer components than before, which reduces the environmental impact.
Measure	120 x 55 mm x 52 mm
Own consumption	32 mA
Fuse on output	F1: T2.5A, mains fuse.  F6: T5A, load fuse +, P2:1.  F7: T16A, battery fuse.
Outputs	One cargo outlet, fused.
Insurance	Load output: + secured.
Alarm via	Triggered load securing, potential-free shifting. Conclusion CO / NO. PRO1: Via alarm terminal J13 (NC-CO). PRO2: Via alarm terminal J13 (NC-CO). PRO2 v3: Via J11 and J12 to motherboard on to the parent system. PRO 3: Via J11 and J12 to motherboard on to the parent system.
Protection against:	Deep discharge, short circuit, overload and overvoltage.

#### Indications

Indicator diode	Green	Orange	RED
(2) / D2	OK	Low battery voltage / fuse fault.	Low battery voltage with broken fuse on output.
(4) / D11	-	Overvoltage.	Batteries incorrectly connected.

#### Alarm limits

Alarm limit at low battery voltage	48 V
(5) / JU2 with jumper	50.5 V
(5) / JU 2 without jumper	48 V
The unit is delivered without a jumper on (8) / JU2	

#### sum alarm

sum alarm	
(8) P2: 3	NO
(8) P2: 4	CO
(8) P2: 5	NC

## Technical data: PoE card

## LIMITATIONS


**IMPORTANT**

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Product	Number of PoE / LAN ports	Max power per port	PoE, continuous power	Ethernet type	Network ports	Interface	Functions	Type, injector and switch
PoE Switch 4p FLX S+	4/2	30,8 @ 54,6 V DC	150 W	Fast Ethernet Mbit PoE switch	10 / 100 PoE	1000Base-T RJ-45	Auto-negotiation, Auto-uplink (auto MDI/MDI-X)	Unmanaged. There is no software interface to control the switch.

## POWER SUPPLY

## Power supply - Technical Data LRS-150-48

Info	Explanation
Output voltage	54.6 V
Output current	0 A - 3.3 A
Output voltage, ripple	200 mVp-p
Overvoltage	55.2 V - 64.8 V
Voltage recharge, ripple / current limitation	Less than 0.6 Vp-p
Efficiency	90%
Current limitation	110% - 140%
Constant voltage	+/- 0.5%
Regulatory accuracy	* / - 1.0%
Input current (230 V)	1.7 A
Mains voltage frequency	47 Hz- 63 Hz
Mains voltage	230 V AC - 240 V AC
Brand effect	158.4 W
Temperature range	-30°C - +70°C
Humidity range	20% - 90% RH non-condensed
The power supply is adapted and calibrated with the battery / hardware of the battery backup. Only power and calibrated power supplies may be used. Contact support when changing power supplies. Use of power supplies coming from another source may cause damage not covered by the warranty. Warranty is canceled if power supplies (from a source other than support / designated by support) that are not correctly calibrated are used.	

## TECHNICAL DATA ENCLOSURES

### Enclosures - Technical Data FLX S

Info	Explanation
Name	FLX S
Enclosure class	IP 32
Measure	Height: 222 mm, width 437 mm, depth 145 mm
Height units	5 HE
Mounting	Wall or 19 "rack
Ambient temperature	+ 5 ° C - + 40 ° C. For best battery life: + 15 ° C to + 25 ° C.
Environment	Environmental class 1, indoors. 20% ~ 90% relative humidity
Material	Powder coated sheet
Color	Black
Cable entries, number	4
Batteries that fit	2 pcs 7.2 Ah or 4 pcs 7.2 Ah.
Place for fan	Yes

## LINK TO THE LATEST INFORMATION

Products and software are subject to updates, you will always find the latest information on our website.

### PoE

All information is published with the reservation of possible errors.

## WARRANTY, SUPPORT, COUNTRY OF MANUFACTURE AND COUNTRY OF ORIGIN

### Warranty

The product has a two-year warranty, from the date of purchase (unless otherwise agreed). Support during the warranty period can be reached at support@milleteknik.se or telephone, +46 31-34 00 230. Compensation for travel and / or working hours in connection with locating faults, installing repaired or replaced goods is not included in the warranty. Contact Milleteknik for more information. Milleteknik provides support during the product's lifetime, however, no later than 10 years after the date of purchase. Switching to an equivalent product may occur if Milleteknik deems that repair is not possible. Support costs may (at Milleteknik's discretion) occur after the warranty period has expired.

### Support

Do you need help with installation or connections? Our support phone is available: Monday-Thursday 08: 00-16: 00 and Fridays 08: 00-15: 00. Telephone support is closed between 11: 30-13: 15.

You can also send e-mail, we respond, on weekdays, usually in 24 hours.

Phone: +46 31-340 02 30

### SPARE PARTS

Support handles questions about spare parts, see contact information above.

### Country of manufacture

Country of manufacture / country of origin is Sweden. For more information, contact your seller.

Designed and produced by: Milleteknik AB

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## BATTERIES - RECOMMENDED, NOT INCLUDED

Batteries are not included they are sold separately

Batteries are sold separately.

### 7.2 Ah, 12 V AGM battery

Fits in	Number of batteries
PoE switch 4p FLX S+	4

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	7.2 Ah

### 10+ Design life \* battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V07-01	5230536	UPLUS 12V 7.2Ah 10+ Design Life battery	Flat pin 6.3 mm	151 x 65 x 100 mm.	2.4 kg	UPLUS

\* Design Life is the durability this year for unused battery. Environmental factors such as heat and load affect service life. Batteries that have a durability (+10 Design Life) of 10+ years usually need to be replaced after 4-5 years.