EY6LC01: Module for separated I/O module supply, modu601-LC

EY6LC01

Features

- Part of the SAUTER modulo 6 system family
- Enables separate supply between automation station and I/O modules
- Power supply of I/O modules and connected LOI units (Local Override and Indication Device)
- Allows extension to up to 24 I/O modules
- Enables simple wiring tests of the I/O modules without the station, together with modu600-LO on the I/O modules

Technical data

Power supply		
	Power supply	24 V= ± 10%
	Dissipated power	< 0.5 W
	Power consumption	< 19 W at max. load
	Peak inrush current[1)]	≤ 2 A, ≤ 10 ms
Parameters		
	Connection	3-pin spring-type terminal, pluggable, 0.5...1.5 mm^2 (rigid) 0.5...2.5 mm^2, min. 8 mm wire stripped
Ambient conditions		
	Operating temperature	0...45 °C
	Storage and transport temperature	−25...70 °C
	Admissible ambient humidity	10...90% rh, no condensation
Interfaces and communication		
	Connection, I/O bus	6-pin spring contacts left and 7-pin right
	Earth connector	Spring contact against DIN rail and PE feed connection
Construction		
	Fitting	On metallic DIN rail 35 × 7.5/15 as per EN 60715 Rail housing as per DIN 43880
	Dimensions W x H x D	56 × 97 × 59 mm
	Weight	98 g
Standards and directives		
	Protection type (as per EN 60730)	Connections and terminals: IP00 Front in DIN cut-out: IP30
	Protection class	I (EN 60730-1)
	Environment class	3K3 (IEC 60721)
CE conformity according to	EMC Directive 2014/30/EU	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 50491-5-1, EN 50491-5-2, EN 50491-5-3

Overview of types

Type	Description
EY6LC01F001	Module for separate I/O module supply

Manuals

Document number	Language	Title
D100397589	de	Systembeschreibung SAUTER modulo
D100408512	de	EY-modulo 6 – Best Practice I

1) *Measured value with EY-PS021F021 power supply unit*

Document number	Language	Title
D100402674	en	SAUTER modulo system description
D100410201	en	EY-modulo 6 – Best Practice I
D100402676	fr	Description du système SAUTER modulo
D100410203	fr	EY-modulo 6 – Meilleures pratiques I

Description of operation

The modu601-LC allows the I/O modules to be powered separately from the automation station. This ensures that outputs retain a certain status value, e.g. the default value defined in the engineering or the value set manually via the LOI. If the power supply to the automation station is interrupted, the 24 V supply to the I/O modules and the desired status at the outputs remain the same. The modu601-LC also allows the I/O modules to be used together with LOI modules without a station, e.g. for wiring checks.
Special standards such as IEC 61508, IEC 61511, IEC 61131-1 and IEC 61131-2 were not considered during the development.

Note
The modu601-LC is required if more than twelve modules have to be supplied with power or if the I/O modules are supplied with power separately from the automation station.
If there are modu6**-CM COM modules in the system, modu601-LCs may only be inserted after the COM modules.

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the “Description of operation” section.
All related product regulations must also be adhered to. Changing or converting the product is not admissible.

Engineering notes

Fitting and power supply

Note
Only qualified electricians are permitted to fit and connect the module.
Prevent laypersons from accessing it.

CAUTION!
Destruction of electronics!
▶Add or remove I/O modules only when the station is disconnected from the power supply.
▶The current load of max. 1300 mA for the station must not be exceeded. This must be ensured in advance during the engineering.

The maximum current loading is the sum of all the connected devices incl. the I/O modules and operating units.
The information on the current consumption of the individual I/O modules, operating and indicating units can be found on the respective product data sheets.

The modu601-LC is mounted in a cabinet using a metallic DIN rail (EN 60715).
You must ensure that it is not installed in the immediate vicinity of power contactors, frequency converters or other EMC interference sources. SAUTER generally recommends installation in a separate DDC cabinet field. During installation, there must also be an external, primary isolating facility. Connection may only be performed when the system is disconnected from the electrical supply. All plant devices are connected via pluggable spring-type terminals. When the power supply is being connected, the protective earth must also be connected to the corresponding terminal (protection class I).
Further recommendations can be found in the document “EY-modulo 6 – Best Practice I”.

The communication wiring must be carried out professionally and in accordance with the requirements of standards EN 50174-1, EN 50174-2 and EN 50174-3. Communication and plant device wiring must be separated from current-carrying wiring.
Local requirements regarding installation, usage, access, access rights, accident prevention, safety, dismantling and disposal must be taken into account. Furthermore, installation standards such as EN 50178, EN 50310, EN 50110, EN 50274 and EN 61140 must be complied with.
For more information on fitting and installation, see fitting instructions.

Power supply

The device is suitable for operation at 24 V DC. Operation with EY-PS 021 switched-mode power supply is recommended as it is optimally matched to the system. It is necessary to use a double-insulated power supply.
DC operation has the lowest power loss and heat generation. This prolongs the serviceable life and minimises the device's own consumption.
The maximum ampacity of the connection terminals must be complied with; to this end, external fuse protection is essential in all cases. When a current-limiting power supply unit is used, such as EY-PS 021, fuse protection in the 24 V electrical circuit is not necessary. The fuse required for the primary electrical circuit on the power supply unit can be found in the manufacturer's instructions.
For the sizing of a DC power supply, the maximum current consumption of the modu601-LC and all other devices connected to the 24 V supply is added up. The next-largest power supply module is selected; a reserve of at least 15% is to be taken into account.

Note
For maximum limitation of EMC emissions, connect the modu601-LC and the automation station to separate power supply sources.

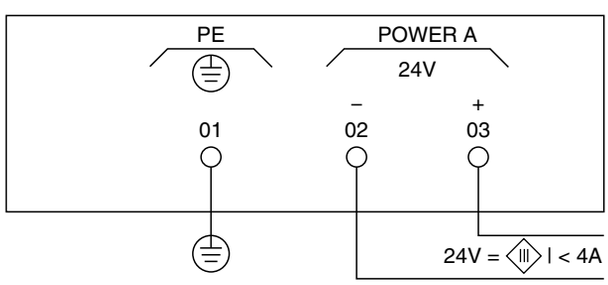
Earth

The earth connector on the modu601-LC is the protective earth and must always be connected to the earth for safety and EMC reasons.

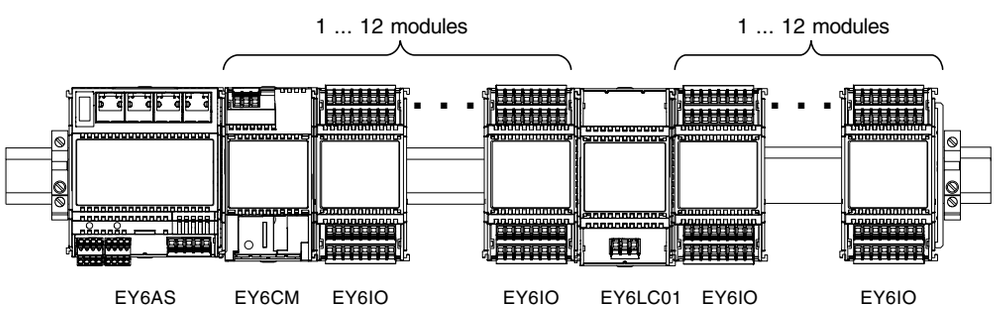
Disposal

When disposing of the product, observe the currently applicable local laws.
More information on materials can be found in the Declaration on materials and the environment for this product.

Connection

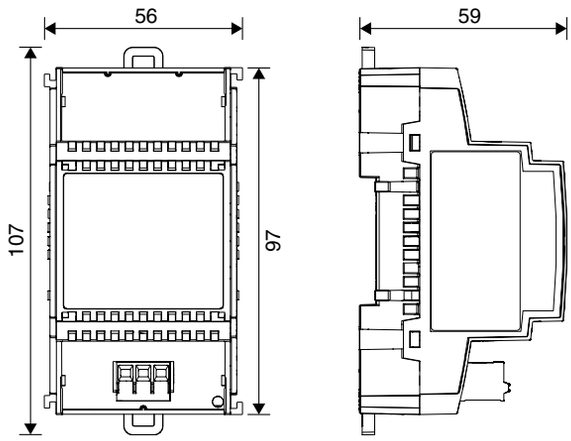


Classification of the module



Dimension drawing

All dimensions in millimetres.



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