SMS Manual

- ❖ INNOVATIVE & COMPACT
- ❖ EASY TO PROGRAM
- ❖ LOW COST FACTOR

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User Manual
SMS Module

U p d a t e d : October 12 , 2 0 0 9

The xLogic SuperRelay is an
Easy Electronic manufactured product.
Distribution by DDS

xLogic DDS Easy SuperRelay-----SMS Module(ELC-SMS-D-R)

General Introduction

ELC-SMS-D-R module is a remote control and messaging system, also is a expansion module connected to ELC-18 CPU module, that's to say you would link it to the CPU module when you want to use it work.

Six digital inputs and four relay outputs with alternating contacts are monitored by means of a SMS (Short Message System) via a mobile telephone network* (SIM card determines the provider). Additional 10 message inputs and 10 message outputs are supplied in software through which you can switch the input status and get alarm messages by SMS .Because it used as expansion module, the function blocks usually used in PLC would be used by ELC-SMS module to realize some complex control function by means of short messages.

The device's own phone book saves up to 5 mobile phone numbers of the receivers. Each status change from "0" to "1" at the message output sends a pre-defined message by SMS to the selected receivers. The receivers are processed cyclically, according to the order chosen. The message inputs can be switched on and off by means of a pre-defined message by SMS.   In order to obtain an overview of the state of the installation, the input and output status can also be queried by SMS, but you must special pre-design your program in software because the short message only change the message input status and cannot change the physical input status directly.

The programming of the ELC-SMS is carried out with the xLogicSoft. In this way the settings can be configured conveniently , flexiblely and easily.

*GSM network: **850MHz, 900MHz, 1800MHz, 1900MHz (quad-band GSM module inside)**

Notes: Please refer to ELC series products user's manual about the information ELC-18 series CPU module

Naming rule:

ELC-SMS-D-R
①　②　③④

1.　**Series name**　　2.　**Type name**　　3.　**D: DC supply (24V)**　　4.　**R: Relay output**

Short instructions

1. Select a kind of ELC-18 series CPU module (PLC).

2. Link ELC-SMS to CPU module

3. Connect the RS232/USB interface of your PC or Notebook with the programming interface of the CPU module. Use the programming cable (ELC-RS232/ELC-USB)

4. Now switch on the CPU module and ELC-SMS.

5. Choose your prepared file or create a new file with your configuration.

6. Select a free COM port (Menu Configuration – Select port)

7. Select SMS model.(refer to page 15)

8. Download the file to the CPU module (download)

9. Place the SIM card in the card holder

Note: please note the modules' respective voltage class. The ELC-SMS-D-R is the DC 24V type.

Application-examples

Heating control

Pump control

Irrigation installations

Alarm transmission

Level monitoring

Temperature monitoring

Pressure monitoring

Valve control

Voltage monitoring

Safety instructions

The electrical installation of the ELC-SMS module is the same with the other module of ELC series must be carried out by a competent person.

Please read the complete operating instructions before installation and commissioning.

GSM network failure or power interruptions cannot guarantee a secure monitoring. The use of a prepaid SIM card is possible. It is recommended to use a SIM card with subscription.

This avoids possible credit balance problems. The individual responsibility for protecting the SIM card against abuse lies solely with the card owner.

EASY does not accept any liability for possible damage to persons, buildings and/or machines, which occur due to incorrect use or from not following the details. EASY does not accept any responsibility for the application and use of the ELC-SMS module. In particular EASY cannot guarantee the connection security with the mobile network.

Installation details/ scope of supply

Antenna

The ELC-SMS module comes together with the SMS-ANT small device antenna. The place of installation must be taken into account for the antenna selection.

Caution:

The small device antenna is not suitable for installation in a switch cabinet (shielding).

Here the SMS-ANT-MAG antenna with magnetic feet external signal antenna provides a much better result.   Please take this into account when ordering.

SMS-ANT   SMS-ANT-MAG

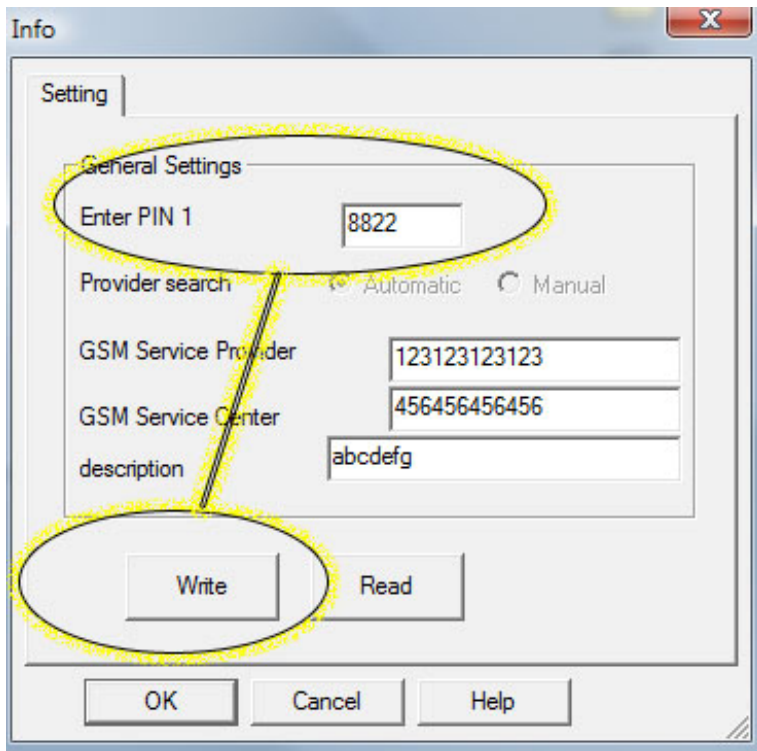**Installeer de SIM card :**

Stap I: Verwijder de blauwe kunststof kap door er een klein schroevendraaier tussen te steken.

Stap II: Plaats de SIM card

Stap III: De PLC moet eerst kunnen communiceren met uw computer. Geef dan de pincode in en druk daarna op de button Write.


Wanneer de simkaart is geplaatst en de zich niet heeft kunnen aanmelden op het netwerk of een onjuiste pincode is ingevoerd, knippert de groene led iedere seconde. (knipper frequentie 1sec)

Wanneer de simcard aangemeld is op het provider netwerk licht de led iedere 5 seconden groen op. (knipper frequentie 5sec)

De GSM Service Provider en Center behoeft u niet op te geven, dit zit verwerkt in uw simcard.

Wiring

De ELC-SMS-D-R dient aangesloten te worden volgens het onderstaande aansluitschema:
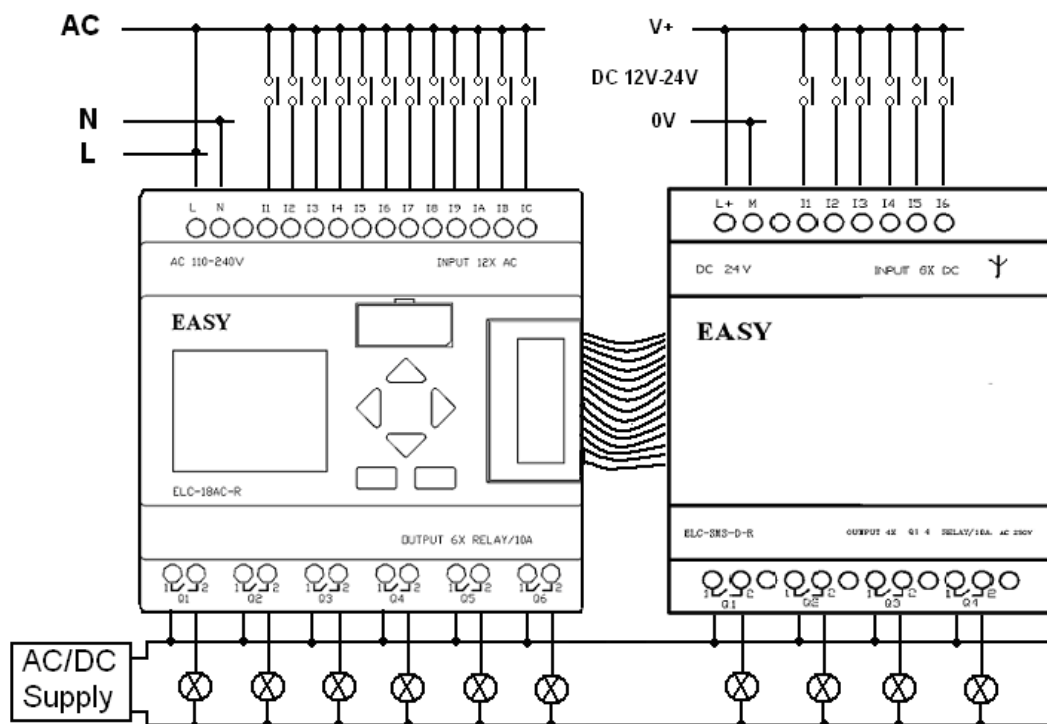
Notes: 1. ELC-SMS-D-R can be connected to any voltage class ELC-18 series CPU module.

2. The regulations and common standards are to be followed for the electrical installation and the installation must be carried out by a competent person

LED status display

De ELC-SMS-D-R heeft twee Leds, 1 voor de gsm en de andere Led voor de status. Beide leds zijn zichtbaar vanaf de voorzijde van de SMS module. De volgende Led statussen kunnen getoond worden:

GSM- VISUELE STATUS LED

- Oplichten regelmatig (ieder seconde) wat betekend dat de module niet is ingelogd op het provider netwerk van uw simkaart.

- Kort oplichten (ongeveer iedere 3 seconden) wat betekend dat de module is ingelogd op het provider netwerk maar er is geen communicatie

- Constant branden van de Led wat betekende dat er een verbinding gaande is met het provider netwerk

- Onregelmatig branden van de Led wat betekend dat er op dat moment data word verstuurd (een SMS)

POWER Status-LED
- Donker LED betekend dat de SMS module uit staat
- Fel gekleurde LED betekend dat de SMS module aan staat
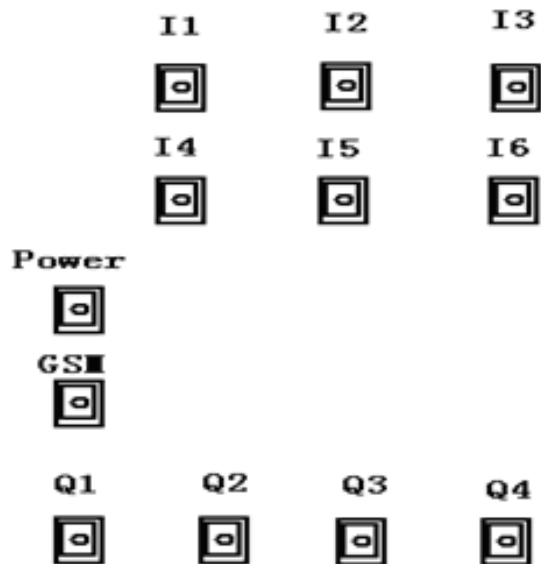
Inputs / Outputs

De input en output statussen worden weergegeven aan de voorzijde van de SMS module, middels het uit of aan zijn van de betreffende in- of output LED. De Led statussen worden als volgt weergegeven:

Inputs I1, I2, I3, I4, I5, I6 (LED aan = input is ingeschakeld (on))
Outputs Q1, Q2, Q3, Q4   (LED aan = output is ingeschakeld (on))
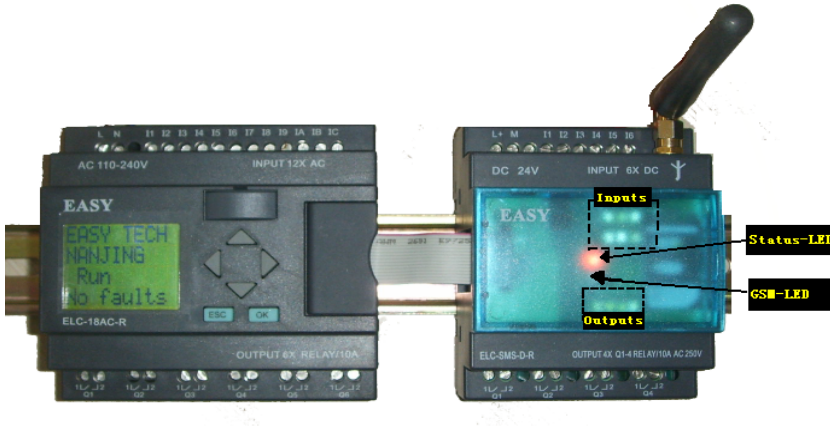
LED opstelling voorzijde module:

**Configuratie van de ELC-SMS module middles de "xLogicSoft" software.**

General

De ELC-SMS kan geconfigureerd worden middels de xLogicSoft software. De ELC-SMS module kan geheel worden ingesteld middels de xLogic software zonder dat de SMS module word gekoppeld aan de PC. De gehele configuratie van de SMS module kan gesimuleerd worden in de xLogic software.

In deze simulatie kan dan het telefoon boek ingesteld worden en de in- en output SMS berichten.

Wanneer in de simulatie software de SMS module is geconfigureerd kan het file opgeslagen worden op de computer en vervolgens middels een RS232 of USB kabel naar de ELC-18 PLC / SMS module ge- upload worden.
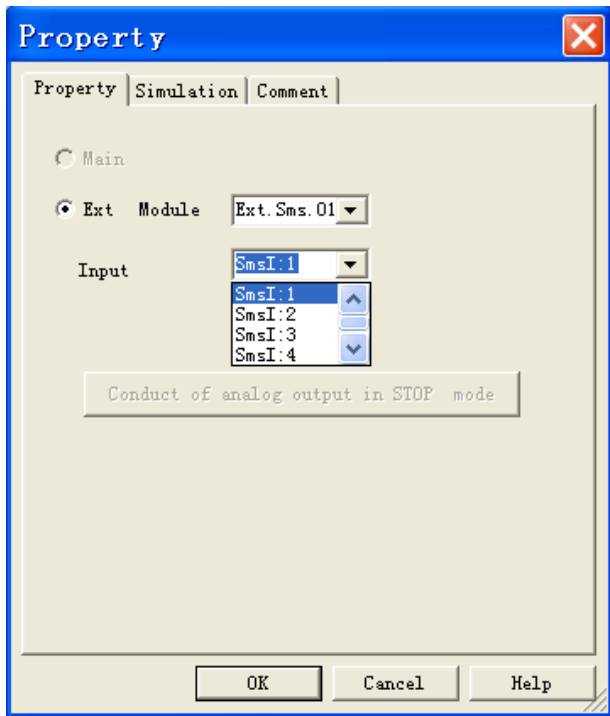
Algemene SMS I/O functie
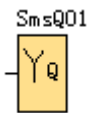
1. SMS input

SmsIO1
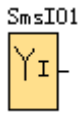
SMS input blocks represent the input terminals of ELC-SMS. Up to 6 digital inputs are available to you.

In your block configuration, you can assign an input block a new input terminal, if this terminal is not already used in the circuit program.
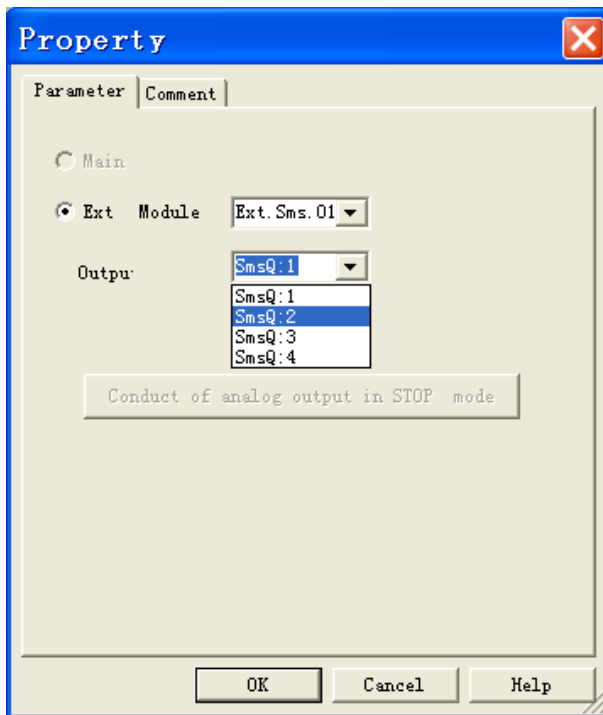

The SMS input used as same as other modules of ELC series. It is a digital input.

2. SMS output

SmsQ01

SMS output blocks represent the output terminals of ELC-SMS. You can use up to 4 outputs. In your block configuration, you can assign an output block a new terminal, provided this terminal is not already used in your circuit program.

The output always carries the signal of the previous program cycle. This value doe not change within the current program cycle.

The SMS output used as same as other modules of xLogic SuperRelay. The ELC-SMS-D-R module is relay output.

3. SMS message input

MsgI01
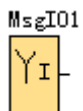
Up to **10 SMS message inputs** are available to you. SMS message inputs are programmed for the circuit program in the same ways as other inputs. SMS message inputs allow operator control of the circuit program by means of short message by users' handsets. Users send pre-set short message content to change the status of SMS message inputs from "0"/OFF to "1"/ON or "1"/ON to "0"OFF. So, the program running state would change to realize a certain control function.