xLogic

IN THIS BROCHURE:

- ELC-18 series Standard CPU
- ELC-18 series Economy CPU
- ELC-18 series extensions
- ELC-12 series CPU
- ELC-12 series extensions
- ELC SMS Module
- ELC Ethernet Module
- Accessories
- xLogicSoft configuration tool
- Switch Power Supply

CE

xLogic ⟺ THE PERFECT ALTERNATIVE TO LOW COST PLCs AND BASIC RELAYS

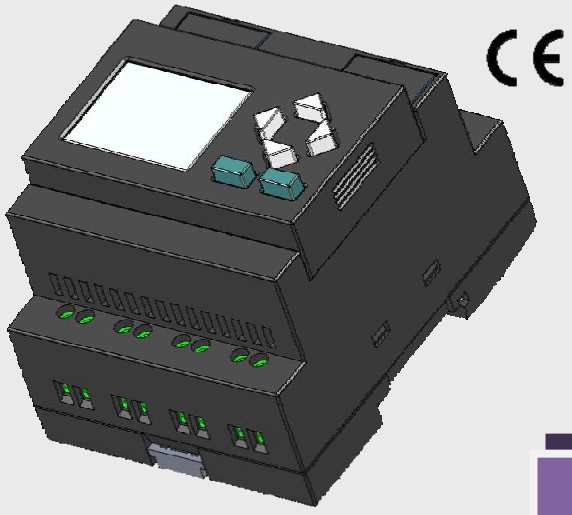
xLogic is a latest generation Micro-plcs, compact and expandable CPU, replacing mini PLCs, multiple timers, relays and counters etc.

The xLogic perfectly fits in the space between timing relays and low-end PLCs.

Each CPU incorporates not only a real-time clock and calendar, but also provides support for optional expansion I/O modules to enhance control and monitoring applications.

The xLogic is the ideal solution for relay / PLC replacement, or simple control applications as building and parking lot lighting, access control, watering systems, pump control, ventilation systems, home automation and a wide field of applications demanding low cost to be a primary design issue.

xLogic is a product made by Easy Electronic Co.,Ltd

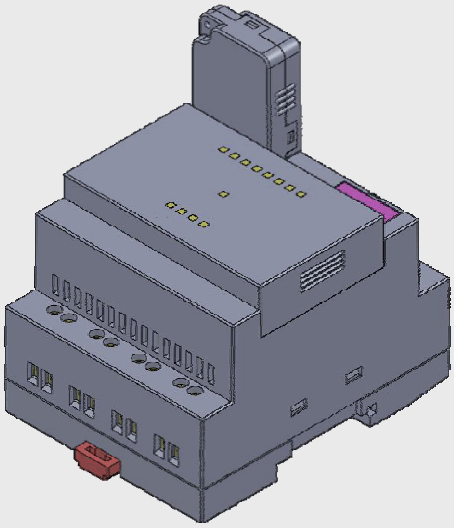


❖ ***Detachable LCD features….and more…!***

ELC-12 Series

With detachable LCD

- Detachable LCD
- Customizable Start-up page / screen
- 4-line, 10-character configurable backlighting display
- Keypanel programming feature optional
- Various values / settings and parameters can be viewed and adjusted directly through the HMI display.
- Various blocks' different parameters can be displayed on one screen / page simultaneously
- Randomly specify a specific page to display the IO status of the ELC 12 or expansion module attached
- Ethernet capability available .
- Alarm page can record and display the exact alarm occurrence time
- Programmable up to 32 (user defined) screens / pages
- Optional metal mounting plate offers mounting to the rear of the control panel door.
- Modbus RTU protocol supported.
- Unit Size allows for DIN-rail mounting together with commonly used breakers in building automation applications.
- Retentive memory capability standard feature on the ELC-12 model.
- Powerful communication capability(1 RS232 port and 2 RS485 ports)
- It's optional for xLogic to act as slave or master in certain Modbus RTU communication network.
- HMI(LCD) separate installation available,e.g. xLogic can be installed inside cabinet and HMI mounted in it's front panel



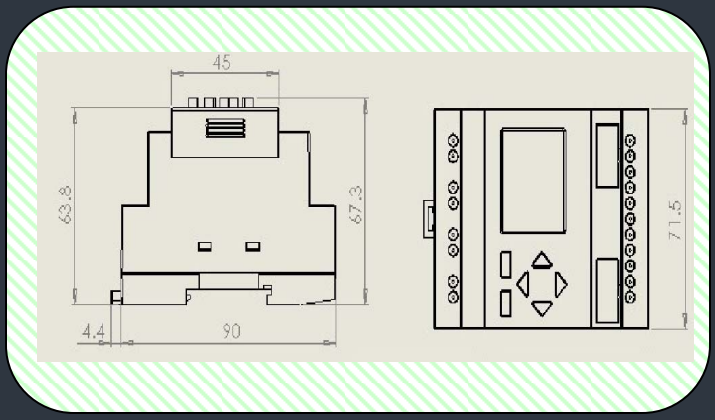
- ***Detachable LCD***
- ***Rugged, low cost model.***
- ***DIN Rail or Wall mounted.***
- ***Connect optional Ethernet module.***
- ***Connect HMI / Operator Panel using Modbus.***
- ***2/4 routes High Speed Counting on all DC-type units***

ELC-12 Series

MODEL	POWER SUPPLY	INPUTS	OUTPUTS	RTC	PWM	HSC
ELC-12AC-R	AC 110~240V	8 Digital	4 Relays	Yes	No	No
ELC-12DC-DA-R	DC12V – DC24V	4 Digital / Analog+4 Digital	4 Relays	Yes	No	Yes
ELC-12DC-DA-TN(PNP)	DC12V – DC24V	4 Digital / Analog+4 Digital	4 Transistors（PNP）	Yes	2 Ch.	Yes
ELC- 12DC-DA-TP(NPN)	DC12V – DC24V	4 Digital / Analog+4 Digital	4 Transistors (NPN)	Yes	2 Ch.	Yes

GENERAL SPECIFICATIONS

Timers : 256
Counters : 256
Function Blocks : 256
Operation temp. : 0℃-55℃
Storage :-40℃-70℃
Protection : IP20(Non-waterproof)
RTC accuracy : MAX ±5S/day
RTC time intervals : 256
RTC Backup at 25 °C : 72 hours, Li-ion battery (optional)
Power-off retentivity : Yes
Dimensions : 72*90*68 (Unit, mm）
Certificate : CE
Installation : DIN rail or screw for installation
Expansion capacity : yes
Password protection : Mutiple password protection
Communication interface : TTL interface , 1 RS232 port & 2 RS485 ports
Communication protocol : Modbus RTU
It's optional for xLogic to be either slave or master in Modbus network.



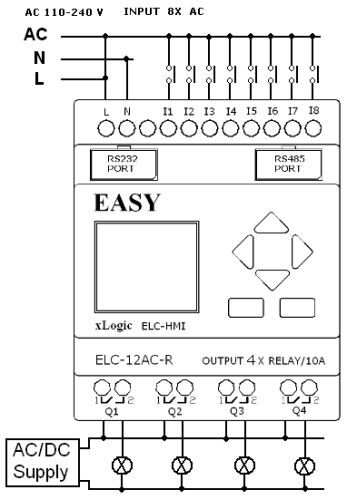
ELC-12AC-R

Power supply
- Rated voltage: AC 110-240V
- AC220V consumption: 3W
- Main voltage operation range: AC85-256V
- Allowable main frequency: 47-63Hz

Digital input
- Signal 0: AC 0-40V
- Signal 1: AC79-240V
- Input current: < 0.03mA
- Input current: >0.08mA

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-12DC-DA-R

Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

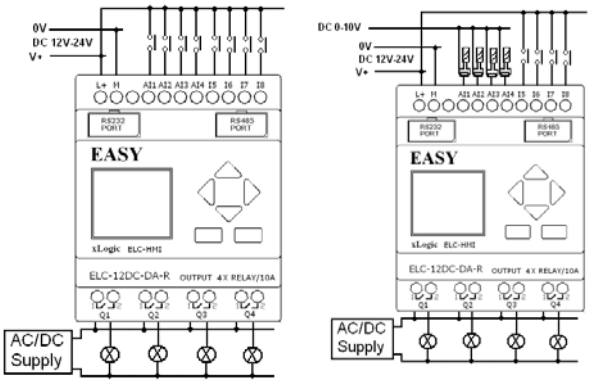
Digital input
- Signal 0:DC 0-3V
- Signal 1:DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: I7,I8(Max.30k Hz)

Analog input
- Signal: DC 0-10V
- AI1-AI4 = I1-I4

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-12DC-DA-TN(PNP)

Power supply
Rated voltage: DC12-24V
(Output full-load)：Typical 3W
Main voltage operation range: 10V-28V

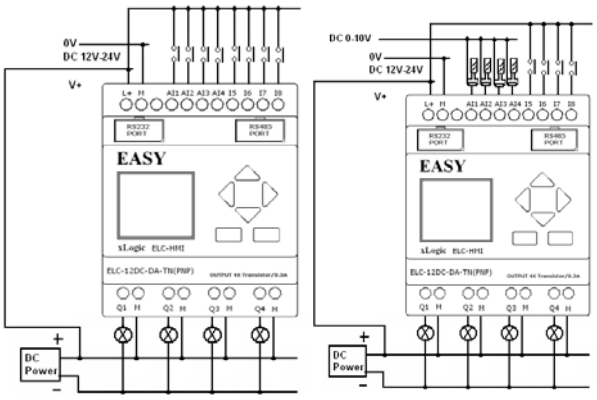
Digital input
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

High-speed counting: I7,I8 (Max.30k Hz)

Analog input
Signal: DC 0-10V
AI1-AI4=I1-I4

Digital output
Output type: transistor(PNP type) output
continuous current max value: MAX.0.3A

PWM: 2 channel (Q3,Q4)



ELC-12DC-DA-TP(NPN)

Power supply
Rated voltage: DC12-24V
(Output full-load)：Typical 3W
Main voltage operation range: 10V-28V

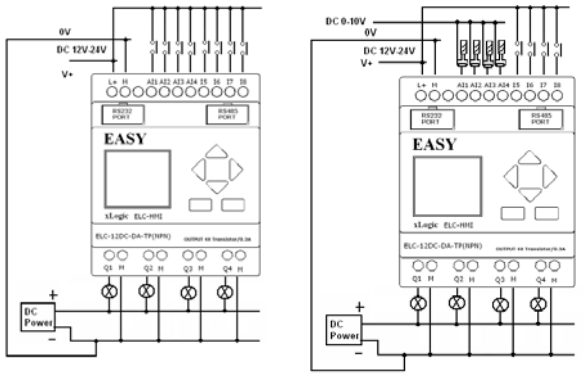
Digital input
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

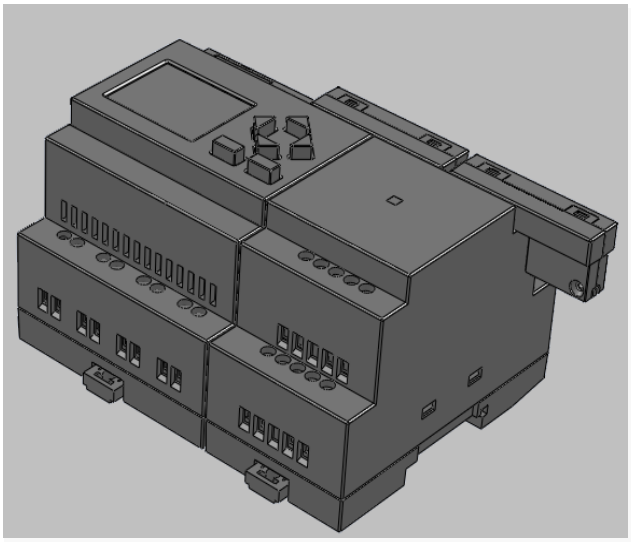
High-speed counting: I7,I8 (Max.30k Hz)

Analog input
Signal: DC 0-10V
AI1-AI4=I1-I4

Digital output
Output type: transistor(NPN type) output
continuous current max value: MAX. 0.3A

PWM: 2 channel (Q3,Q4)





- ***Connect to the STANDARD ELC-12 Series CPU***
- ***Compact , space-saving .***

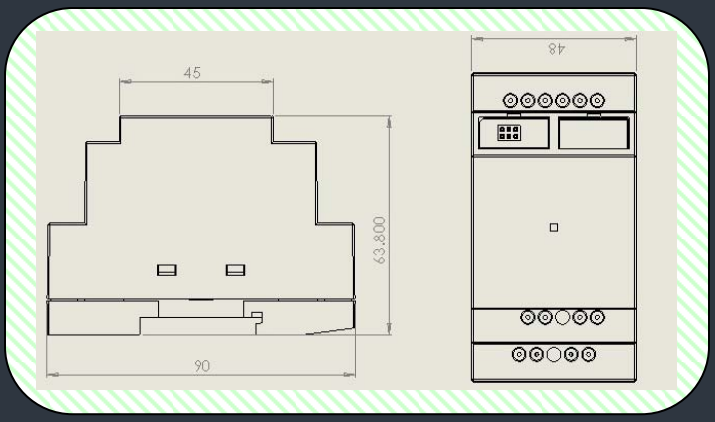
ELC-12 Series Extensions

MODEL	POWER SUPPLY	INPUTS	OUTPUTS
ELC12-E-8AC-R	AC 110~240V	8 Digital	8 Relays
ELC12-E-8DC-DA-R	DC12V – DC24V	8 Digital	8 Relays
ELC12-E-8DC-DA-TN(PNP)	DC12V – DC24V	4 Digital / analog	8 Transistors（PNP）
ELC-12-E-8DC-DA-TP(NPN)	DC12V – DC24V	4 Digital/analog	8 Transistors (NPN)
ELC12-E-PT100	DC12V – DC24V	3 PT100	None
ELC12-E-AI(I)	DC12V – DC24V	4 (0/4…..20 mA)	None
ELC12-E-AQ-V	DC15V – DC24V	None	2 (DC 0…10V)
ELC12-E-AQ-I	DC15V – DC24V	None	2 (0…20mA)
* ELC12-RS485	DC12V – DC24V	None	None
* ELC12-ETHERNET-AC	AC110V – AC240V	None	None
* ELC12-ETHERNET-DC	DC12V – DC24V	None	None

"*": Special expansion module

GENERAL SPECIFICATIONS

Operation temp.	: 0℃-55℃
Storage	:-40℃-70℃
Protection	: IP20(Non-waterproof)
Dimensions	: 64*90*48 (Unit, mm）
Certificate	: CE
Installation	: DIN rail or screw for installation



ELC-12 series extensions

❖ *Connect to the STANDARD ELC-12 Series CPU.*

ELC12-E-8AC-R

POWER

AC 110~240V

INPUTS

4 AC Digital

OUTPUTS

2 Relays (10A)

2 Relays (3A)

DIGITAL INPUTS

Signal 0: AC 0-40V Input current: <0.03mA

Signal 1: AC79-240V Input current: >0.08mA

DIGITAL OUTPUTS

Output Type: Relay output.

Continuous Max. Current Value:

Q1 – Q2: Max 3A

Q3 – Q4: Max 10A

ELC12-E-8DC-DA-R

POWER

DC12V – DC24V

INPUTS

4 DC Digital/analog

OUTPUTS

2 Relays (10A)

2 Relays (3A)

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V Input current: >1.5mA

ANALOG INPUTS

Signal: DC 0-10V

AI1-AI4=I1-I4

DIGITAL OUTPUTS

Output Type: Relay output.

Continuous Max. Current Value:

ELC12-E-8DC-DA-TN(PNP)

POWER

DC12V – DC24V

INPUTS

4 DC Digital/analog

OUTPUTS

4 Transistors (0.3A)（PNP）

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V

Input current: <1.5mA

DIGITAL OUTPUTS

Output Type: Transistor output. (PNP)

Continuous Max. Current Value:

Q1 – Q4: Max 0.3A

ELC12-E-8DC-DA-TP(NPN)

POWER

DC12V – DC24V

INPUTS

4 Digital / analog

OUTPUTS

8 Transistors (0.3A)（PNP）

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V

Input current: <1.5mA

ANALOG INPUTS

Signal: DC 0-10V

DIGITAL OUTPUTS

Output Type: Transistor output. (PNP)

Continuous Max. Current Value:

Q1 – Q4: Max 0.3A

ELC12-E-PT100

POWER

DC12V – DC24V

INPUTS

2 channels

Type PT100

12bit or 10bit resolution optional

Measuring range

-50℃ to +200℃

ELC12-RS485

POWER

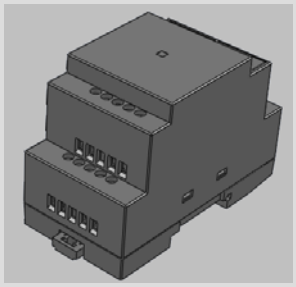
DC12V – DC24V

Isolated 485 converter,used to bring out the the terminals of RS485 port built-in ELC-12 series CPU for connection with third party devices.

Short connect RT1 and RT2 and a 120R resistor would be connected between A/+ and B/-

ELC-12series extensions

❖ ***Connect to the STANDARD ELC-12 Series CPU.***



ELC12-E-AI-I

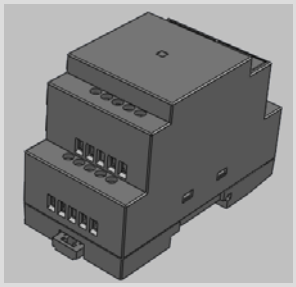
POWER

DC12V – DC24V

ANALOG INPUTS

4 channels

Signal: 0/4……20mA



ELC12-E-AQ-V

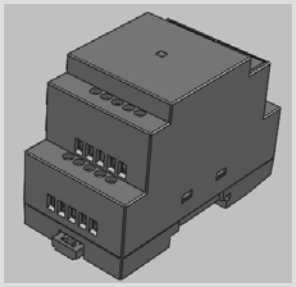
POWER

DC 24V

ANALOG OUTPUT

2 channels

Output range: DC 0---10V



ELC12-E-AQ-I

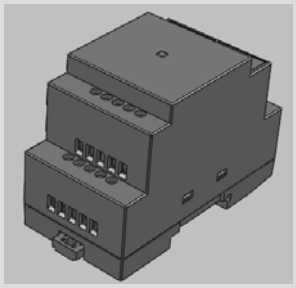
POWER

DC 24V

ANALOG OUTPUT

2 channels

Output range: 0----20mA

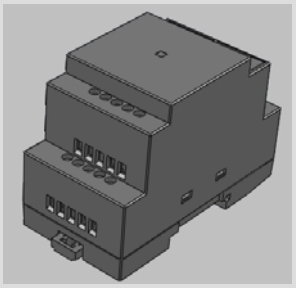


ELC12-E-Ethernet-DC

POWER

DC12V – DC24V

Ethernet capability for ELC-12 CPU

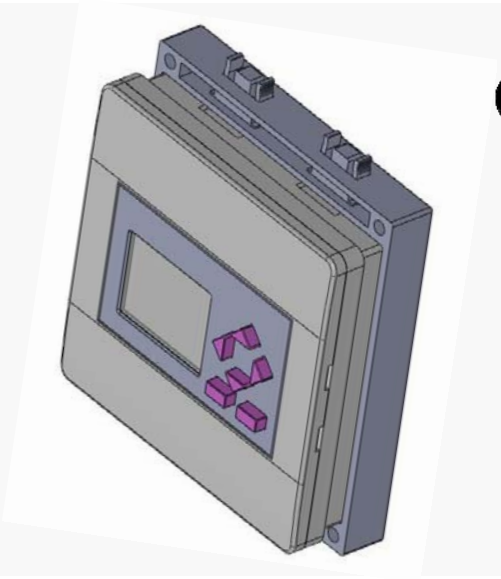


ELC12-E-Ethernet-AC

POWER

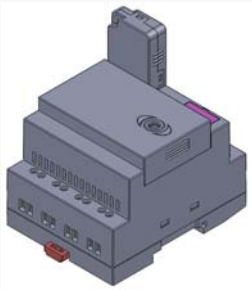
AC 110-240V

Ethernet capability for ELC-12 CPU



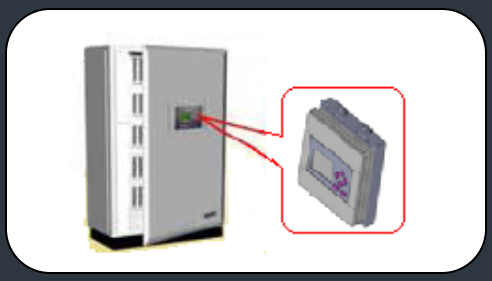
CE

❖ ***Adapt to the STANDARD ELC-12 Series CPU.***



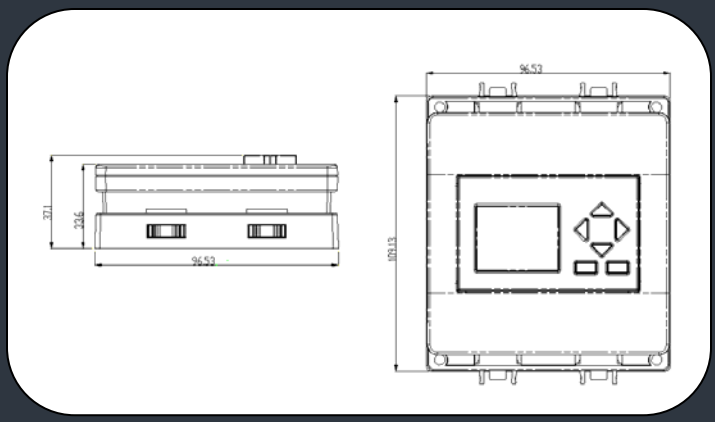
ELC-12 Series Accessories

MODEL	Remark
ELC12-HMI-DP	Various values / settings,alarm message and parameters can be viewed and adjusted directly through the HMI Up to 32 screens can be configured by users. Conveniently programming for user in the local field .
ELC12-COVER-L	Instead of ELC12-HMI, reducing your cost and the beautiful LED indicator can show you IO status
ELC12-COVER-CABLE	Connection cable between ELC-12 CPU and Faceplate(ELC12-HMI-FP)
ELC12-HMI-FP	Faceplate ,it can be put outside of cabinet for observaton and operation when ELC-12 CPU was installed inside
ELC12-CB-A	A type connection bridge ,it is short distance application
ELC12-CB-B	B type connection bridge , it can be used to remotely connect ELC-12 CPU to its extension units.
ELC-Copier	Copy program from one xLogic CPU to others.



GENERAL SPECIFICATIONS

Operation temp. : 0℃-55℃
Storage :-40℃-70℃
Protection : IP20(Non-waterproof)
Dimensions : 38*97*110 (unit mm)
Certificate : CE
Installation : screw for installation



❖ ***Powerful build-in HMI-display features….and more…!***

ELC-18 Series

With Build in HMI features

- ❖ Customizable Start-up page / screen
- ❖ 4 line, 10 character backlight display
- ❖ Various values / settings and parameters can be viewed and adjusted directly through the HMI display.
- ❖ Various blocks' different parameters can be displayed on one screen / page simultaneously
- ❖ Randomly specify a specific page to display the IO status of the ELC 18 or expansion module attached
- ❖ Remote control , monitoring & alarming via SMS .
- ❖ Programmable up to 32 (user defined) screens / pages
- ❖ Ethernet capability available .
- ❖ Optional metal mounting plate offers mounting to the rear of the control panel door.
- ❖ Modbus RTU protocol supported.
- ❖ Unit Size allows for DIN-rail mounting together with commonly used breakers in building automation applications.
- ❖ Programming done as with any regular HMI (not just via key pad as most similar products).
- ❖ Powerful communication capability(1 RS232 port and 1/2 RS485 ports optional)
- ❖ It's optional for xLogic to act as slave or master in certain Modbus RTU communication network.
- ❖ Retentive memory capability standard feature on the ELC-18 model.

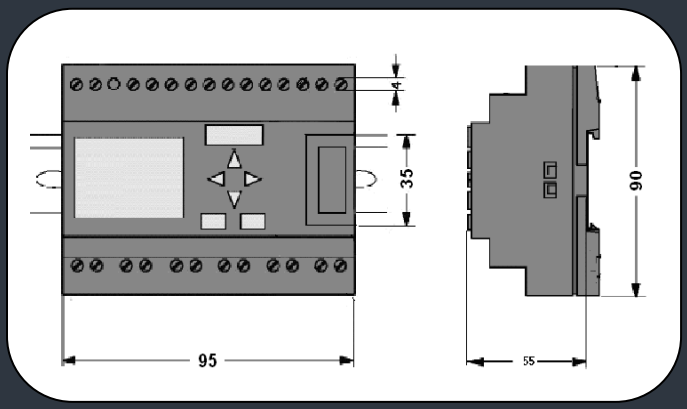
- ***Connect optional expansion modules.***
- ***Connect optional SMS / GSM message module.***
- ***Connect optional Ethernet module.***
- ***Connect HMI / Operator Panel using Modbus.***

ELC-18 Series

MODEL	POWER SUPPLY	INPUTS	OUTPUTS	RTC	PWM
ELC-18AC-R	AC 110~240V	12 Digital	6 Relays	Yes	No
ELC-18DC-D-R	DC12V – DC24V	12 Digital	6 Relays	Yes	No
ELC-18DC-D-TN	DC12V – DC24V	12 Digital	6 Transistors	Yes	2 Ch.
ELC-18DC-D-TP	DC12V – DC24V	12 Digital	6 Transistors	Yes	2 Ch.
ELC-18DC-DA-R	DC12V – DC24V	8 Digital / Analog + 4 Digital	6 Relays	Yes	No
ELC-18DC-DA-TN	DC12V – DC24V	8 Digital / Analog + 4 Digital	6 Transistors	Yes	2 Ch.
ELC- 18DC-DA-TP	DC12V – DC24V	8 Digital / Analog + 4 Digital	6 Transistors	Yes	2 Ch.

GENERAL SPECIFICATIONS

Timers : 256
Counters : 256
Function Blocks : 256
Operation temp. : 0℃-55℃
Storage :-40℃-70℃
Protection : IP20(Non-waterproof)
RTC accuracy : MAX ±5S/day
RTC time intervals : 256
RTC Backup at 25 °C : 10 hours
Power-off retentivity : yes
Storage capacity : 128K
Dimensions : 95*90*55（Unit：mm）
Certificate : CE
Installation : DIN rail or screw for installation
Expansion capacity: 9 analog PCS modules or up to 31Non-analog modules (ELC-E-16, CAN BUS)
Password protection : Mutiple password protection
Communication interface : TTL interface , 1 RS232 port & 1/2 RS485 ports
Communication protocol : Modbus RTU



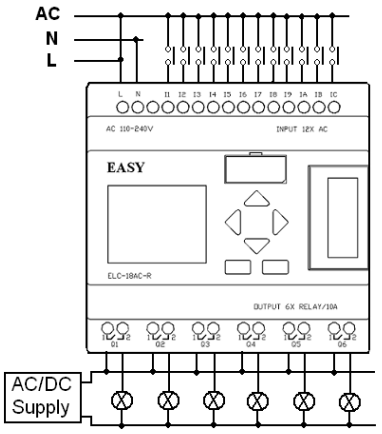
ELC-18AC-R

Power supply
- Rated voltage: AC 100-240V
- AC220V consumption: 3W
- Main voltage operation range: AC85-256V
- Allowable main frequency: 47-63Hz

Digital input
- Signal 0: AC 0-40V
- Signal 1: AC 79-240V
- Input current: < 0.03mA
- Input current: >0.08mA

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-18DC-D-R

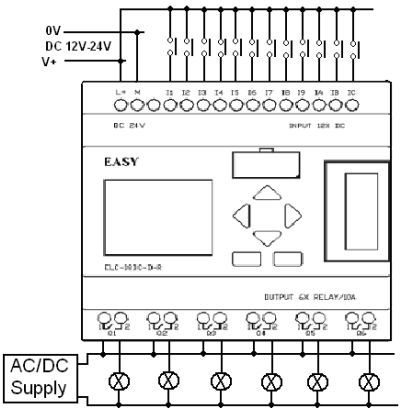
Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

Digital input
- Signal 0: DC 0-3V
- Signal 1: DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: IB, IC (Max.14k Hz)

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-18DC-DA-R

Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

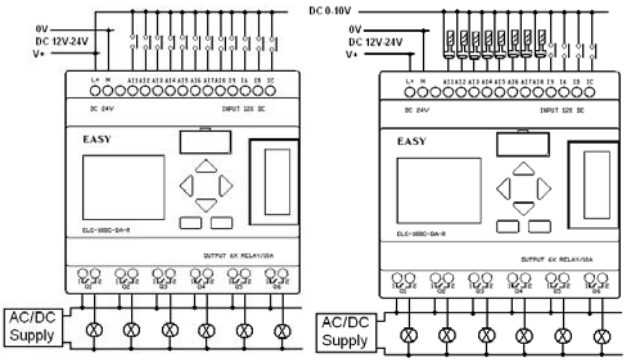
Digital input
- Signal 0: DC 0-3V
- Signal 1: DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: IB, IC (Max.14k Hz)

Analog input
- Signal: DC 0-10V

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-18DC-D-TN

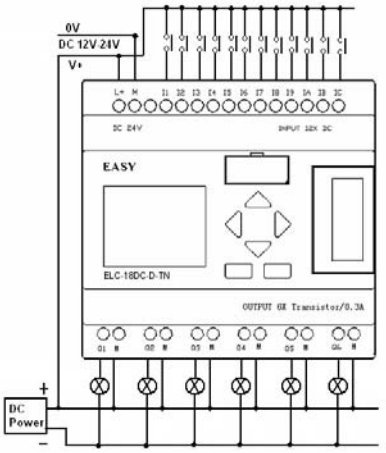
Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

Digital input
- Signal 0:DC 0-3V
- Signal 1:DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: IB, IC (Max.14k Hz)

Digital output
- Output type: transistor (PNP type)
- continuous current max value: MAX.0.3A

PWM: 2 channels (Q5, Q6)



ELC-18DC-DA-TN

Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

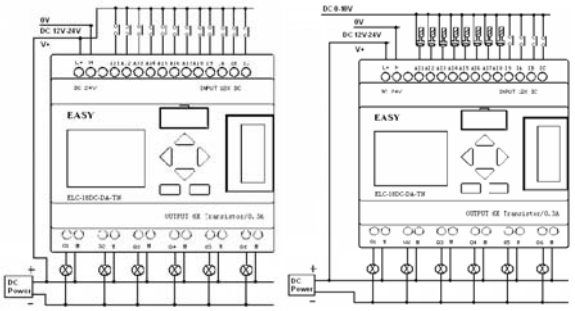
Digital input
- Signal 0:DC 0-3V
- Signal 1:DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: IB,IC (Max.14k Hz)

Analog input
- Signal: DC 0-10V

Digital output
- Output type: transistor (PNP type)
- continuous current max value: MAX. 0.3A

PWM: 2 channels (Q5, Q6)



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ELC-18DC-D-TP

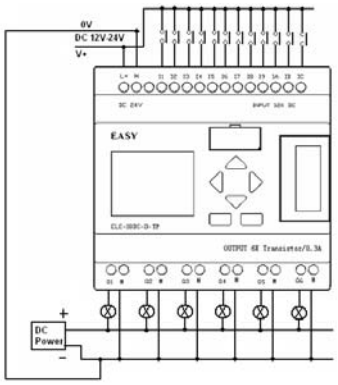
Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

Digital input
- Signal 0:DC 0-3V
- Signal 1:DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: IB, IC (Max.14k Hz)

Digital output
- Output type: transistor (NPN type)
- continuous current max value: MAX.0.3A

PWM: 2 channels (Q5, Q6)



ELC-18DC-DA-TP

Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

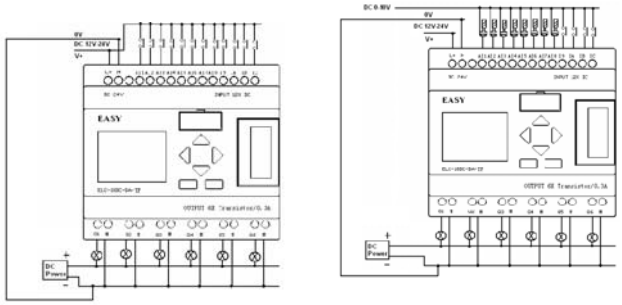
Digital input
- Signal 0:DC 0-3V
- Signal 1:DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

High-speed counting: IB,IC (Max.14k Hz)

Analog input
- Signal: DC 0-10V

Digital output
- Output type: transistor (NPN type)
- continuous current max value: MAX. 0.3A

PWM: 2 channels (Q5, Q6)



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CE

- ***Connect optional SMS / GSM message module.***
- ***Connect HMI / Operator Panel using Modbus.***

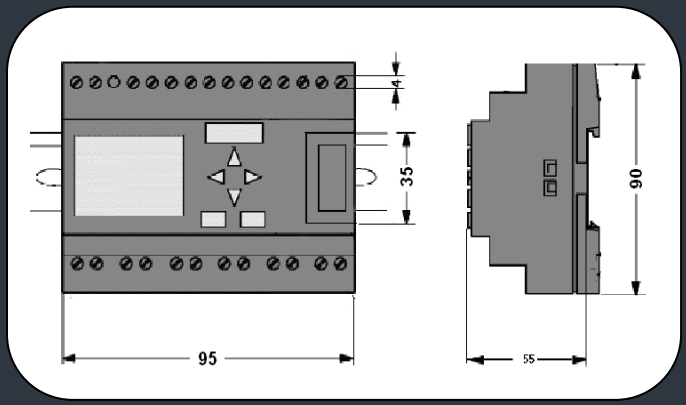
ELC-18 Economy

MODEL	POWER SUPPLY	INPUTS	OUTPUTS	RTC	PWM	HSC*
ELC-18AC-R-E	AC 110~240V	12 Digital	6 Relays	Yes	No	No
ELC-18DC-D-R-E	DC12V – DC24V	12 Digital	6 Relays	Yes	No	No
ELC-18DC-D-TN-E	DC12V – DC24V	12 Digital	6 Transistors （PNP）	Yes	No	No
ELC-18DC-D-TP-E	DC12V – DC24V	12 Digital	6 Transistors (NPN)	Yes	No	No
ELC-18DC-DA-R-E	DC12V – DC24V	8 Digital / Analog + 4 Digital	6 Relays	Yes	No	No
ELC-18DC-DA-TN-E	DC12V – DC24V	8 Digital / Analog + 4 Digital	6 Transistors (PNP)	Yes	No	No
ELC- 18DC-DA-TP-E	DC12V – DC24V	8 Digital / Analog + 4 Digital	6 Transistors (NPN)	Yes	No	No

- **HSC = High Speed Count**

GENERAL SPECIFICATIONS

Timers : 256
Counters : 256
Function Blocks : 256
Operation temp. : 0℃-55℃
Storage :-40℃-70℃
Protection : IP20
RTC accuracy : MAX ±5S/day
RTC time intervals : 256
RTC Backup at 25 °C : 10 hours , Li-ion battery(optional)
Power-off retentivity : yes
Dimensions : 95*90*55（Unit：mm）
Certificate : CE
Installation : DIN rail or screw for installation
Expansion capacity : 31 modules (ELC-E-16, CAN BUS)
Password protection : Mutiple password protection
Communication interface : TTL interface , 1 RS232 port & 1/2 RS485 ports
Communication protocol : Modbus RTU



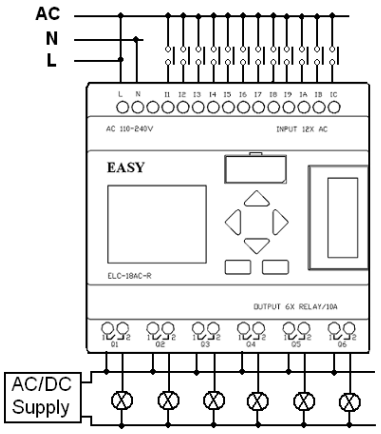
ELC-18AC-R-E

Power supply
- Rated voltage: AC 100-240V
- AC220V consumption: 3W
- Main voltage operation range: AC85-256V
- Allowable main frequency: 47-63Hz

Digital input
- Signal 0: AC 0-40V
- Signal 1: AC79-240V
- Input current: < 0.03mA
- Input current: >0.08mA

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



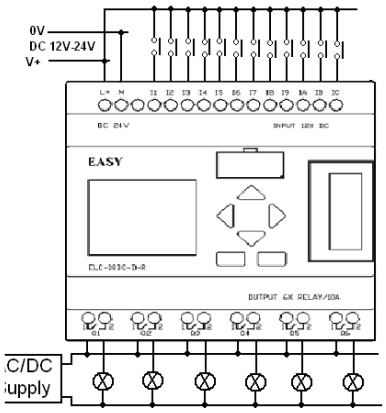
ELC-18DC-D-R-E

Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

Digital input
- Signal 0: DC 0-3V
- Signal 1: DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-18DC-DA-R-E

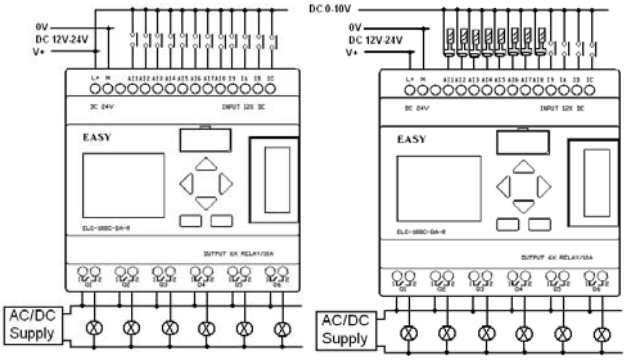
Power supply
- Rated voltage: DC12-24V
- (Output full-load)：Typical 3W
- Main voltage operation range: 10V-28V

Digital input
- Signal 0: DC 0-3V
- Signal 1: DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

Analog input
- Signal: DC 0-10V

Digital output
- Output type: relay output
- continuous current max value: MAX. 10A

Switch frequency
- Mechanism: 10Hz
- Resistor load: 2Hz
- Inductive load: 0.5Hz



ELC-18DC-D-TP-E

Power supply

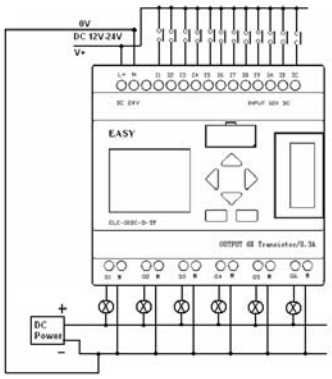
Rated voltage: DC12-24V
(Output full-load)：Typical 3W
Main voltage operation range: 10V-28V

Digital input

Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

Digital output

Output type: transistor (NPN type)
continuous current max value: MAX.0.3A



ELC-18DC-DA-TP-E

Power supply

Rated voltage: DC12-24V
(Output full-load)：Typical 3W
Main voltage operation range: 10V-28V

Digital input

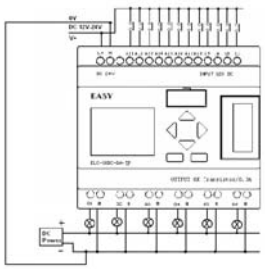
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

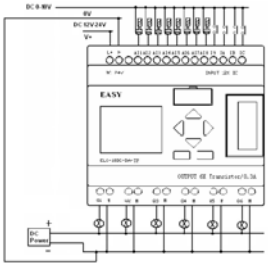
Analog input

Signal: DC 0-10V

Digital output

Output type: transistor (NPN type)
continuous current max value: MAX. 0.3A





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ELC-18DC-D-TN-E

Power supply

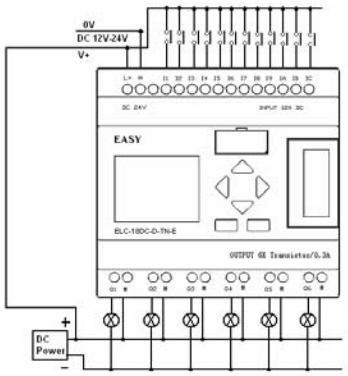
Rated voltage: DC12-24V
(Output full-load)：Typical 3W
Main voltage operation range: 10V-28V

Digital input

Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

Digital output

Output type: transistor (PNP type)
continuous current max value: MAX.0.3A



ELC-18DC-DA-TN-E

Power supply

Rated voltage: DC12-24V
(Output full-load)：Typical 3W
Main voltage operation range: 10V-28V

Digital input

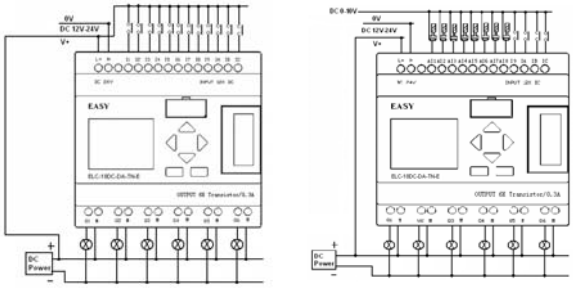
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

Analog input

Signal: DC 0-10V

Digital output

Output type: transistor (PNP type)
continuous current max value: MAX. 0.3A



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- ***Connect to the STANDARD ELC-18 Series CPU.***
- ***Connect up to 31 digital modules.***

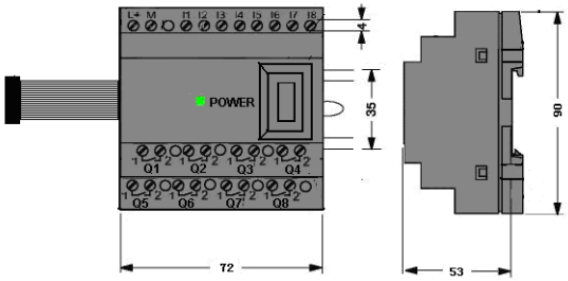
ELC-18 Series Extensions

MODEL	POWER SUPPLY	INPUTS	OUTPUTS
ELC-E-16AC-R	AC 110~240V	8 Digital	8 Relays
ELC-E-16DC-D-R	DC12V – DC24V	8 Digital	8 Relays
ELC-E-16DC-DA-R	DC12V – DC24V	2 Digital / Analog+6 Digital	8 Relays
ELC-E-16DC-D-TN(PNP)	DC12V – DC24V	8 Digital	8 Transistors（PNP）
ELC-E-16DC-DA-TN(PNP)	DC12V – DC24V	2 Digital / Analog+6 Digital	8 Transistors (NPN)
ELC-E-PT100	DC12V – DC24V	3 PT100	None
ELC-E-AI(I)	DC12V – DC24V	4 (0/4…..20 mA)	None
ELC-E-AQ-V	DC15V – DC24V	None	2 (DC 0…10V)
* ELC-RS485	DC12V – DC24V	None	None
* ELC-ETHERNET-AC	AC110V – AC240V	None	None
* ELC-ETHERNET-DC	DC12V – DC24V	None	None
* ELC-SMS-D-R	DC12V – DC24V	6 Digital& 10 SMS inputs	4 Relays& 10 SMS outputs

"*": Special expansion module

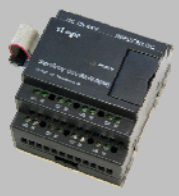
GENERAL SPECIFICATIONS

Operation temp. : 0℃-55℃
Storage :-40℃-70℃
Protection : IP20(Non-waterproof)
Dimensions : 72*90*53 (Unit, mm）
Certificate : CE
Installation : DIN rail or screw for installation



ELC-18series extensions

ELC-E-16AC-R



POWER

AC 110~240V

INPUTS

8 AC Digital

OUTPUTS

4 Relays (10A)

4 Relays (3A)

DIGITAL INPUTS

Signal 0: AC 0-40V Input current: <0.03mA

Signal 1: AC79-240V Input current: >0.08mA

DIGITAL OUTPUTS

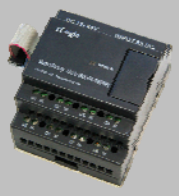
Output Type: Relay output.

Continuous Max. Current Value:

Q1 – Q4: Max 3A

Q5 – Q8: Max 10A

ELC-E-16DC-D-R



POWER

DC12V – DC24V

INPUTS

8 DC Digital

OUTPUTS

4 Relays (10A)

4 Relays (3A)

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V Input current: >1.5mA

DIGITAL OUTPUTS

Output Type: Relay output.

Continuous Max. Current Value:

Q1 – Q4: Max 3A

Q5 – Q8: Max 10A

ELC-E-16DC-DA-R

POWER

DC12V – DC24V

INPUTS

6 DC Digital & 2 Analog / Digital

OUTPUTS

4 Relays (10A)

4 Relays (3A)

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V Input current: >1.5mA

ANALOG INPUTS

Signal: DC 0-10V

DIGITAL OUTPUTS

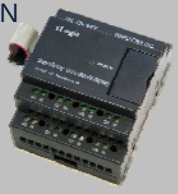
Output Type: Relay output.

Continuous Max. Current Value:

Q1 – Q4: Max 3A

Q5 – Q8: Max 10A

ELC-E-16DC-D-TN



POWER

DC12V – DC24V

INPUTS

8 DC Digital

OUTPUTS

8 Transistors (0.3A)（PNP）

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V

Input current: <1.5mA

DIGITAL OUTPUTS

Output Type: Transistor output. (PNP)

Continuous Max. Current Value:

Q1 – Q8: Max 0.3A

ELC-E-16DC-DA-TN

POWER

DC12V – DC24V

INPUTS

6 DC Digital & 2 Analog / Digital

OUTPUTS

8 Transistors (0.3A)（PNP）

DIGITAL INPUTS

Signal 0: DC 0-3V Input current: <1.0mA

Signal 1: DC 8-24V

Input current: <1.5mA

ANALOG INPUTS

Signal: DC 0-10V

DIGITAL OUTPUTS

Output Type: Transistor output. (PNP)

Continuous Max. Current Value:

Q1 – Q8: Max 0.3A

ELC-RS485

POWER

DC12V – DC24V

Conveter from RS485 port(2x8pin) of CPU to 3 channels wiring terminals

With Photo isolation

Short connect RT1 and RT2 and a 120R resistor would be connected between A/+ and B/-

ELC-18series extensions

- ***Connect to the STANDARD ELC-18 Series CPU.***
- ***Connect up to 9 analogue modules.***

ELC-E-PT100

POWER

DC12V – DC24V

INPUTS

3 channels

Type PT100

12bit or 10bit resolution optional

Measuring range

-50℃ to +200℃

ELC-E-AI(I)

POWER

DC12V – DC24V

ANALOG INPUTS

4 channels

Signal: 0/4……20mA

ELC-E-AQ

POWER

DC 24V

ANALOG OUTPUT

2 channels

Output range: DC 0---10V

SMS Module

- ***Remote control the ELC-18CPU via SMS.***
- ***Remote monitoring via SMS messages (Alarms, IO Status, analog values etc).***
- ***Easy configuration with free of charge xLogicSoft software.***

ELC-SMS-D-R

Incorporating the ELC-SMS-D-R module into a system allows the user full remote monitoring as well as remote control of the application via SMS (Short Message Service) on any GSM phone or PDA.

Worldwide availability, low operating cost, easy installation and integration in combination with high reliability makes SMS remote control and monitoring a desirable option in hard to reach, distant or hazardous environments.

GSM Network support:

The ELC-SMS-D-R is equipped with a Quad-band GSM module offering seamless functionality on 850Mhz, 900Mhz, 1800Mhz, 1900Mhz.

Ethernet Module

- ***Add the ELC-Ethernet module and provide Ethernet capability to your xLogic .***

ELC-Ethernet-DC module
ELC-Ethernet-AC module

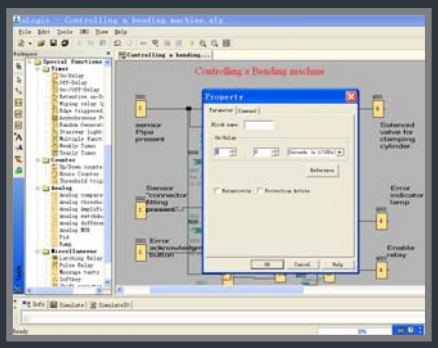
Cable Modules

- ***Two standard communication and configuration interface cables are available: RS232 and USB.***

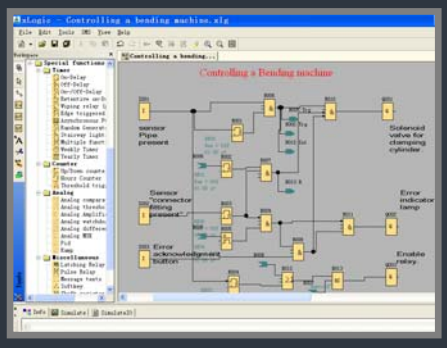
ELC-RS232
ELC-USB

xLogicSoft

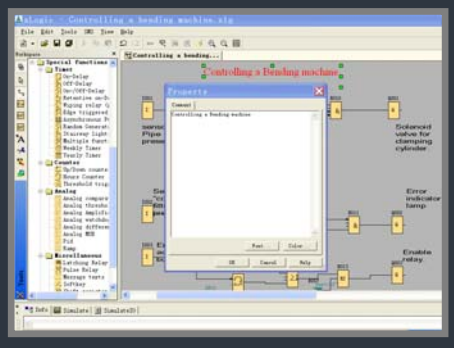
- ***Free of charge xLogic configuration software.***
- ***FBD/LAD language programming.***
- ***Free upgrades for all future software versions.***
- ***Library with pre-configured function blocks for ultra fast set-up.***
- ***On-line Monitor & Off-line Simulation***
- ***Free Personal Tutorials***



Using the dialog boxes, function block parameter setup and modification is a quick and easy task to complete.



Link function blocks to complete your program. Set up as many as 256 function blocks in one circuit program.



Use the “label tool” to write a comment, instruction or help note on the xLogic circuit program screen.

- ***Mini-size , light weight.***
- ***High efficiency , good reliability.***
- ***UPS function optional.***
- ***Remote control function optional.***

Switch Power Supply

Remote control and UPS function

- EMI filter condenser.
- Input frequency:47-63Hz.
- Output voltage stability:±0.5%
- DIN rail mounting
- Wide range voltage input(110-240VAC/140-340VDC).
- Ripple voltage tolerance range(85-264VAC/120-370VDC).
- Output voltage fine adjustment range(-5% -+10% ,adjusting potentiometer V)
- Have the function of soft-start(to limit the peak current of start and the pressure of the voltage to the components).
- With the remote control function(By the switch control the having and non-having of the output voltage).
- With the over heat protection function(the main control CMOS chip stops output when the temperature is beyond 135℃ and the output will renew automatically when the temperature reduces).
- The current of the load can be roughly adjusted(Means the maximum protective current of the load ,adjusting potentionmeter A).
- Effective:>75% .
- Insulation voltage endurance:>15kV.
- Power supply output with the LED Indicator.
- Ripple:≤ 150mVp-p.
- Have the short circuit and over-load protection(short circuit protection means miss-connect the output voltage in short , after disconnect, the output will be renew.Overload protection:105% -135%).
- With the UPS function. (External-connected battery, provide with the UPS by the power supply and the battery).

- ***Mini-size , light weight.***
- ***High efficiency , good reliability.***
- ***UPS function optional.***
- ***Remote control function optional.***
- ***Over heat protection function.***

Switch Power Supply

MODEL	ELC-05AS	ELC-12AS	ELC-24AS	ELC-05AL	ELC-12AL	ELC-24AL
Output voltage	5V	12V	24V	5V	12V	24V
Output current	6A	3A	1.5A	10A	6A	3A
Demensions (L X W X H)	71mm x 106mm x65 mm			126mm x 106mm x 65mm		
Installation	Standard 35mm DIN (EN50022-35)					
Full-range voltage input	100-240VAC/140-340VDC					
Waving voltage allowance	85-264VAC/120-370VDC					
Input frequency	47-63Hz					
Output voltage stability	≤±0.5%					
Ripple	≤150mVp-p					
Temperature	-25℃-+70℃					
Insulation and breakdown	>1.5kV					
Efficiency	>75%					

Introduction and Installation Dimensions:

The ELC-AS/AL Series Switch Power have many feature: being mini-sized,light weight,high efficiency,good reliability and so on. In special, it has the remote control and UPS fucntion.

ELC-AS series:
- ELC-05AS(5V/6A)
- ELC-12AS(12V/3A)
- ELC-24AS(24V/1.5A)
- 71mm X 106mm X 65mm

ELC-AL series:
- ELC-05AL(5V/10A)
- ELC-12AL(12V/6A)
- ELC-24AL(24V/3A)
- 126mm X 106mm X 65mm