SuperRelay

IN THIS BROCHURE:

- ELC 18 Standard Models
- ELC 18 Economy Models
- ELC 12 Standard Models
- ELC 16 Expansion Modules
- ELC SMS Module
- ELC Ethernet Module
- ELC xLogicSoft configuration tool

SUPERRELAY, THE PERFECT ALTERNATIVE TO LOW COST PLCs AND BASIC RELAYS

xLogic SuperRelay is a compact and expandable CPU replacing mini PLCs, multiple timers, relays and counters.

The xLogic SuperRelay 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 SuperRelay 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.

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

ELC-18 Series

With Built 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
- ❖ 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.
- ❖ 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).
- ❖ Retentive memory capability standard feature on the ELC-18 model.
- ❖ 10-bit Analogue input resolution.
- ❖ CE-approved

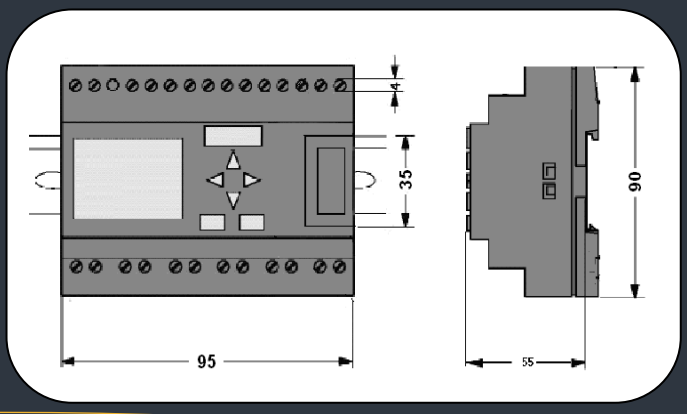
- *Connect optional expansion modules.*
- *Connect optional SMS / GSM message module.*
- *Connect optional Ethernet module.*
- *Connect HMI / Operator Panel using MODBUS.*

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 / Analogue + 4 Digital	6 Relays	Yes	No
ELC-18DC-DA-TN	DC12V – DC24V	8 Digital / Analogue + 4 Digital	6 Transistors	Yes	2 Ch.
ELC- 18DC-DA-TP	DC12V – DC24V	8 Digital / Analogue + 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
RTC accuracy : MAX ±5S/day
RTC time intervals : 256
RTC Backup at 25 ℃ : 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 analogue PCS modules or up to 31 Non-analogue modules (ELC-E-16, CAN BUS)



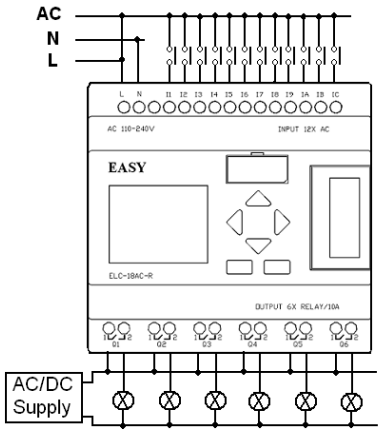
ELC-18AC-R

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

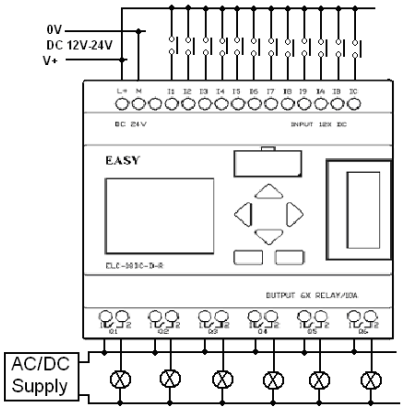
Power supply
- Rated voltage: DC12-24V
- (Output full-load) : Typical 3W
- Main voltage operation range: 10V-28V

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

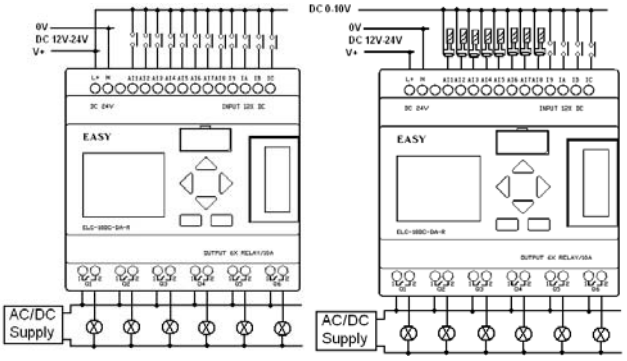
Digital input
- Signal 0: DC 0-3V
- Signal 1: DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

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

Analogue 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

Power supply

Rated voltage: DC12-24V

(Output full-load) : Typical 3W

Main voltage operation range: 10V-28V

Digital input

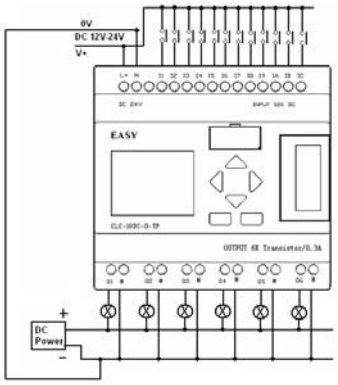
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

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)

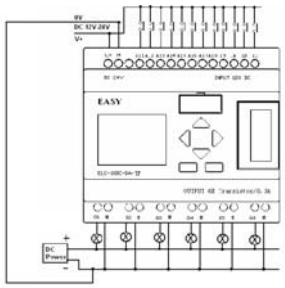
Analogue input

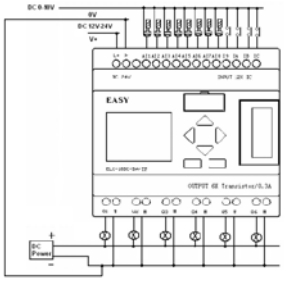
Signal: DC 0-10V

Digital output

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

PWM: 2 channels (Q5, Q6)





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For the latest updated information

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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

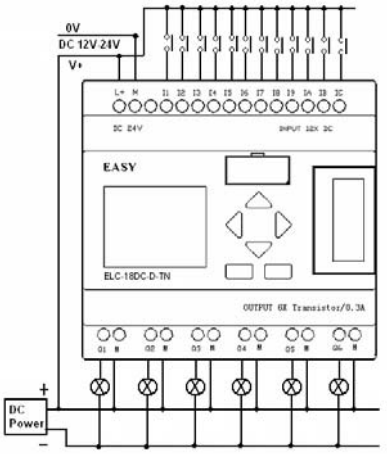
High-speed counting: IB, IC (Max.14k Hz)

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)

Analogue input

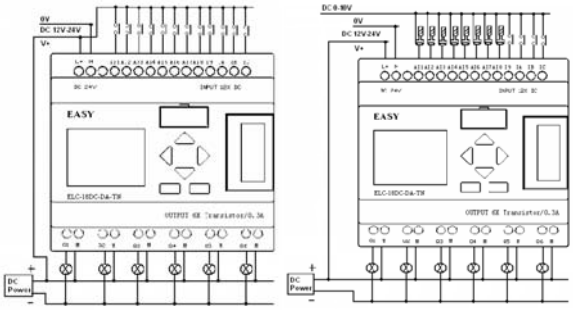
Signal: DC 0-10V

Digital output

Output type: transistor (PNP type)

continuous current max value: MAX. 0.3A

PWM: 2 channels (Q5, Q6)



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

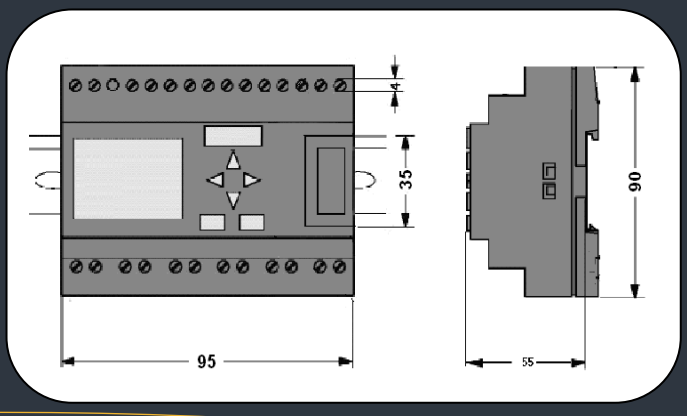
ELC-18 Economy

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 / Analogue + 4 Digital	6 Relays	Yes	No	No
ELC-18DC-DA-TN-E	DC12V – DC24V	8 Digital / Analogue + 4 Digital	6 Transistors (PNP)	Yes	No	No
ELC- 18DC-DA-TP-E	DC12V – DC24V	8 Digital / Analogue + 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 ℃ : 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: No



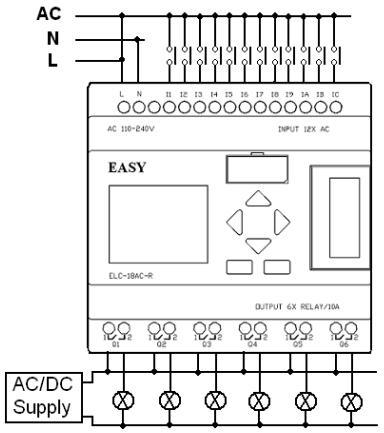
ELC-18AC-R-E

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



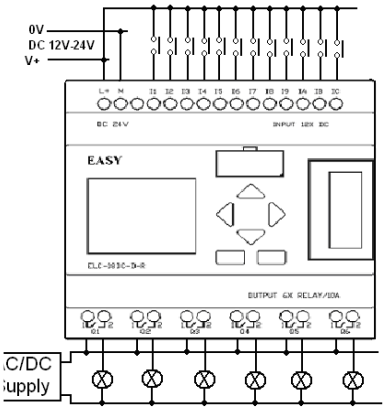
ELC-18DC-D-R-E

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

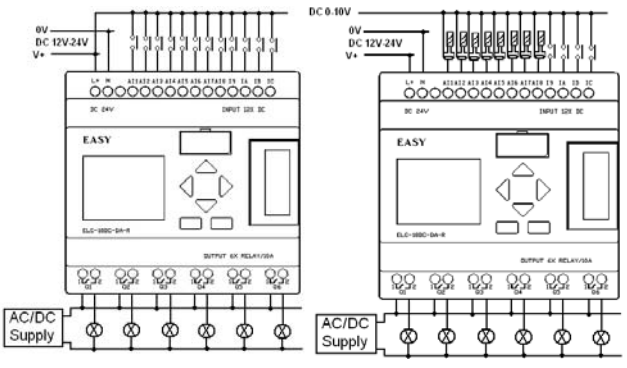
Power supply
- Rated voltage: DC12-24V
- (Output full-load) : Typical 3W
- Main voltage operation range: 10V-28V

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

Analogue 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

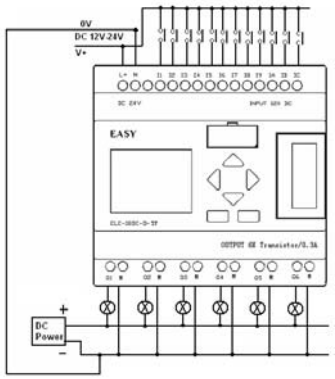
Main voltage operation range: 10V-28V

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

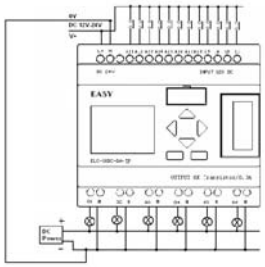
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

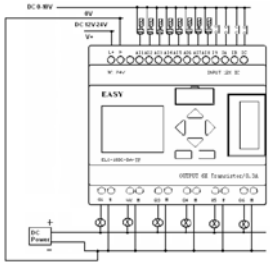
Analogue input

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

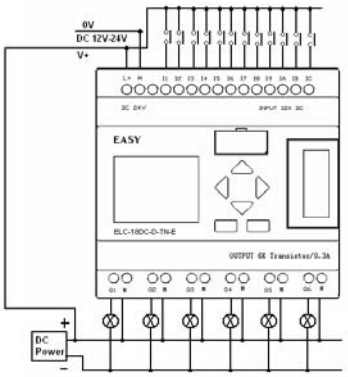
Input current: < 1.0mA

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

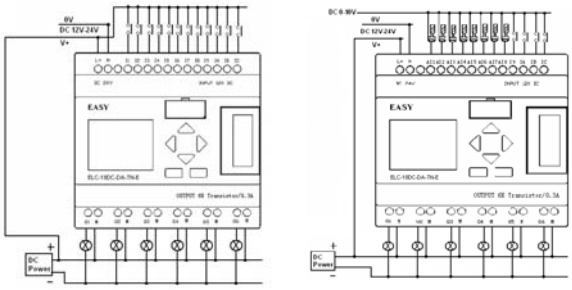
Analogue input

Signal: DC 0-10V

Digital output

Output type: transistor (PNP type)

continuous current max value: MAX. 0.3A



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For the latest updated information

www.xLogic-relay.co.uk

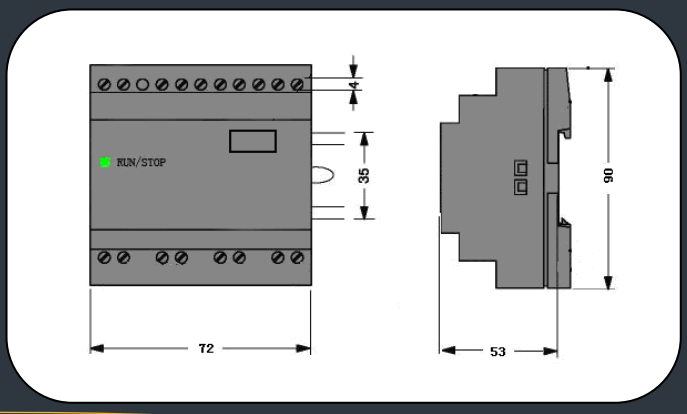
- ***Rugged, low cost model.***
- ***DIN Rail or Wall mounted.***
- ***Connect HMI / Operator Panel using MODBUS.***
- ***1 route High Speed Counting on all units***

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-D-R	DC12V – DC24V	8 Digital	4 Relays	Yes	No	Yes
ELC-12DC-D-TN	DC12V – DC24V	8 Digital	4 Transistors (PNP)	Yes	2 Ch.	Yes
ELC-12DC-D-TP	DC12V – DC24V	8 Digital	4 Transistors (NPN)	Yes	2 Ch.	Yes
ELC-12DC-DA-R	DC12V – DC24V	8 Digital / Analogue	4 Relays	Yes	No	Yes
ELC-12DC-DA-TN	DC12V – DC24V	8 Digital / Analogue	4 Transistors (PNP)	Yes	2 Ch.	Yes
ELC- 12DC-DA-TP	DC12V – DC24V	8 Digital / Analogue	4 Transistors (NPN)	Yes	2 Ch.	Yes

GENERAL SPECIFICATIONS

Timers : 130
Counters : 130
Function Blocks : 130
Operation temp. : 0℃-55℃
Storage :-40℃-70℃
Protection : IP20
RTC accuracy : MAX ±5S/day
RTC time intervals : 130
RTC Backup at 25 ℃ : 72 hours
Power-off retentivity : No
Storage capacity : 128K
Dimensions : 72*90*53 (Unit, mm)
Certificate : CE
Installation : DIN rail or screw for installation
Expansion capacity : No



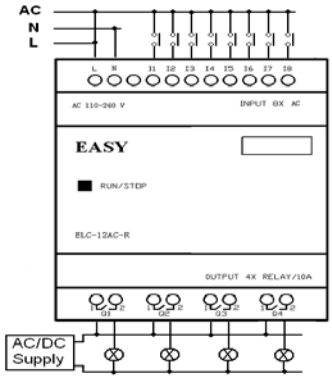
ELC-12AC-R

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-D-R

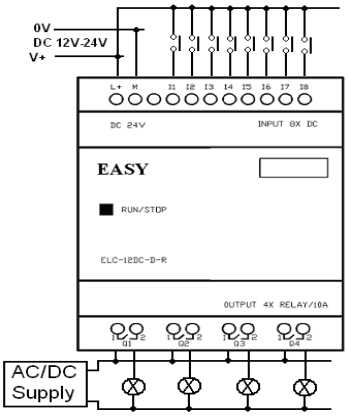
Power supply
- Rated voltage: DC12-24V
- (Output full-load) : Typical 3W
- Main voltage operation range: 10V-28V

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

High-speed counting: I8 (Max.2k 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-12DC-DA-R

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

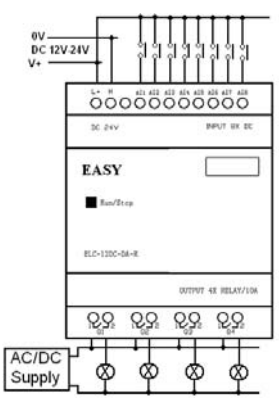
Digital input
- Signal 0:DC 0-3V
- Signal 1:DC 8-24V
- Input current: < 1.0mA
- Input current: >1.5mA

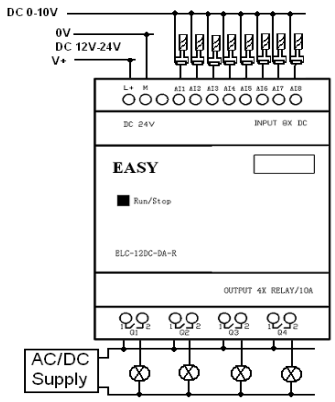
High-speed counting: AI8 (Max.2k Hz)

Analogue 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-12DC-D-TP

Power supply

Rated voltage: DC12-24V

(Output full-load) : Typical 3W

Main voltage operation range: 10V-28V

Digital input

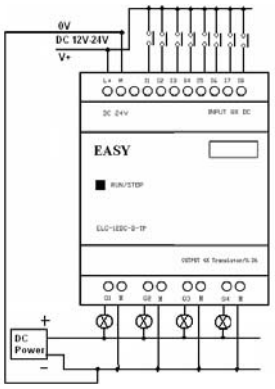
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

High-speed counting: I8 (Max.2k Hz)

Digital output

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

PWM: 2 channel (Q3, Q4)



ELC-12DC-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: AI8 (Max.2k Hz)

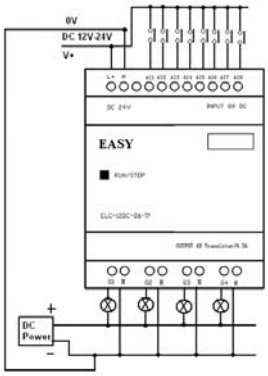
Analogue input

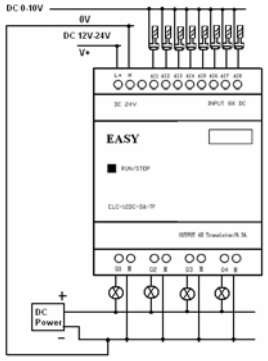
Signal: DC 0-10V

Digital output

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

PWM: 2 channel (Q3, Q4)





Consult our website

For the latest updated information

www.xLogic-relay.co.uk

ELC-12DC-D-TN

Power supply

Rated voltage: DC12-24V

(Output full-load) : Typical 3W

Main voltage operation range: 10V-28V

Digital input

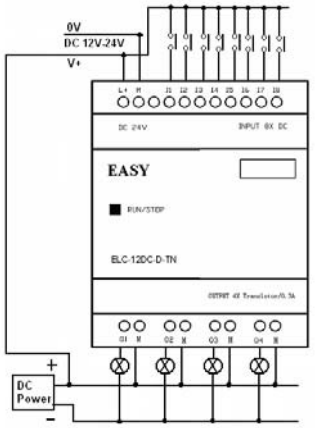
Signal 0:DC 0-3V
Signal 1:DC 8-24V
Input current: < 1.0mA
Input current: >1.5mA

High-speed counting: I8 (Max.2k Hz)

Digital output

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

PWM: 2 channel (Q3, Q4)



ELC-12DC-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: AI8 (Max.2k Hz)

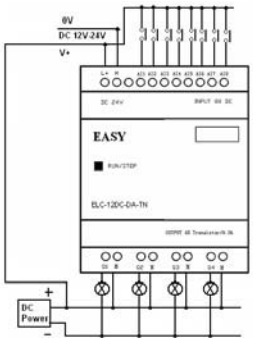
Analogue input

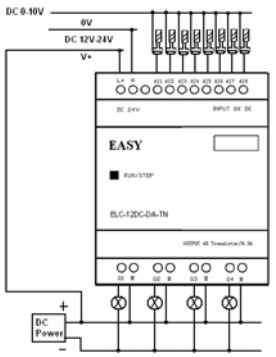
Signal: DC 0-10V

Digital output

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

PWM: 2 channel (Q3, Q4)





Consult our website

For the latest updated information

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Expansion Module

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

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

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 Analogue / 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

ANALOGUE 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

ANALOGUE 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

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

With opto-isolation

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

Expansion Module

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

ELC-E-PT100

POWER

DC12V – DC24V

INPUTS

3-channels

Type PT100

10-bit (12-bit resolution optional)

Measuring range

-50℃ to +200℃

ELC-E-AI (I)

POWER

DC12V – DC24V

ANALOGUE INPUTS

4-channels

Signal: 0/4……20mA

ELC-E-AQ

POWER

DC 24V

ANALOGUE OUTPUT

2-channels

Output range: DC 0---10V

SMS Module

- ***Remote control the ELC 18 SuperRelay via SMS.***
- ***Remote monitoring via SMS messages (Alarms, IO Status, analogue 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 SuperRelay.***

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

CE

Cable Modules

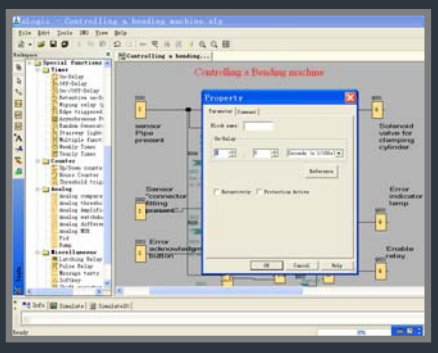
- ***Two standard communication and configuration interface cables are available: RS232 and USB.***

ELC-RS232
ELC-USB

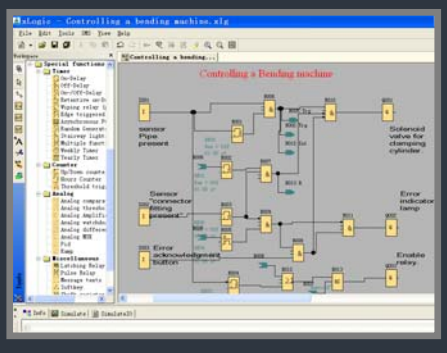
CE

xLogicSoft

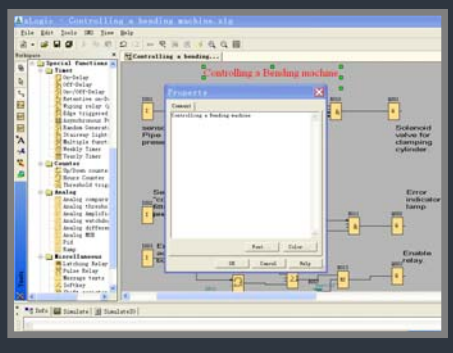
- ***Free of charge SuperRelay configuration software.***
- ***Function Block / Ladder programming.***
- ***Free upgrades for all future software versions.***
- ***Library with pre-configured function blocks for ultra fast set-up.***
- ***On-line Monitor & Off-line Simulation***
- ***Free Personal Tutorials***



Using the dialog boxes, function block, parameter setup and modification is quick



Link function blocks to complete your program. Set up as many as 256 (ELC-18)



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

VISIT OUR WEBSITE AT WWW.XLOGIC-RELAY.CO.UK AND DOWNLOAD YOUR XLOGICSOFT SOFTWARE & USER MANUAL FOR FREE!