

Fuji Easy Logic Controller

ELC



The ELC incorporates a weekly time-setting function that allows you to configure several control logic sequences based on time. Ideal for replacing control relays, timers and counters. The ELC is programmed in Relay Ladder Logic using a Windows programming software or directly on the front panel. These are just a few of the many ELC applications:

- Opening/closing control of doors, gates and shutters
- Pump control for supplying and draining water
- Garbage/waste disposer control
- Illumination control of streetlights, show windows and signboards
- Temperature control in greenhouses and plant watering control
- Boiler control
- Parking area monitoring
- Air ventilation system control
- Escalator control
- Mixing and stirring control for various solvents
- Transfer conveyor and sorter control, etc.

4/8 power relays, 15 timers, 8 counters and 8 program timers are packed into a single ELC.

SAVE SPACE, REDUCE COST, REDUCE WIRING, LOWER ENERGY CONSUMPTION,

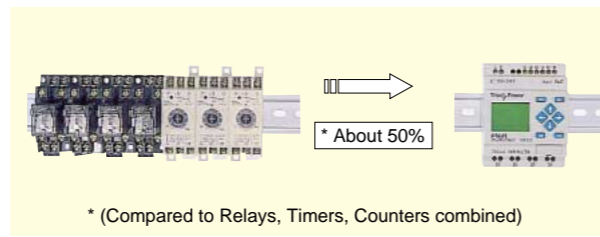
SAVE TIME... The ELC will help improve productivity.



Drastically reduce the size of your control panel!

The ELC has an extremely compact size. The 10-point type is only 72 x 90 x 57mm and the 20-point type is only 126 x 90 x 57mm in size. This compact size contributes to the drastic reduction of control panel dimensions

* For example, if a control circuit including 3 timers and 4 power relays are replaced with the ELC (10 points type), the mounting space may be reduced by about 50%!



SAVE SPACE



Reduce hardware cost!

The ELC has an attractive price to help your bottom line. Please contact Fuji Electric for more detail.

* For example, if a control circuit including 3 timers and 4 power relays are replaced with the ELC (10 points type), the cost will be reduced by about 20%!

REDUCE COST



Reduce wiring time

When individual Relays, Timers and Counter are used the wiring of each component becomes tedious. The ELC can drastically reduce the wiring because only 1 component is involved. Further more, if changes to the logic need to be made these can be done in software or via the front panel.

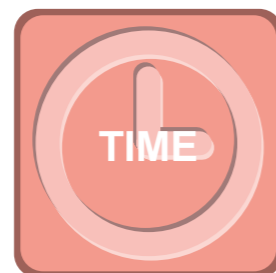
REDUCE WIRING



Energy-saving operation.

The ELC can be programmed to save electricity. A time management function can be programmed to shutdown Fans, Lights, etc. to save energy.

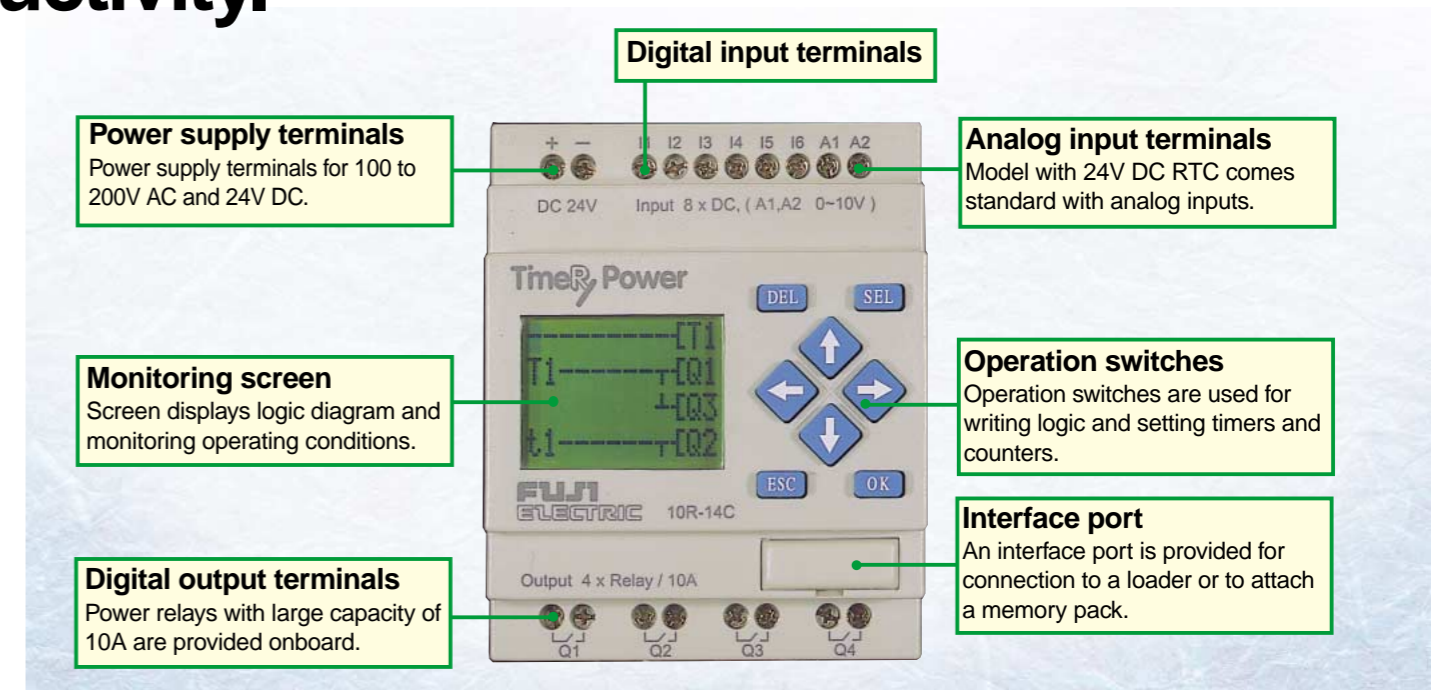
LOWER ENERGY CONSUMPTION



Improve Productivity

The ELC comes standard with Relay Ladder logic schemes for control applications. The ELC can easily copy logic schemes by using the optional memory pack. The control logic connections take considerably less time to implement than traditional hard-wiring.

SAVE TIME



Monitoring screen displays all operating conditions

The monitoring screen on the front of the ELC indicates to the user the total status of the ELC at a glance. This screen displays the status of I/Os, internal relays, timers, counters, the analog current values and the clock time, as well as a monitoring screen of the control logic operation.

Control logic is easily configured in ladder diagram format with software

Control logic wiring in the ELC is implemented with software in a ladder diagram format that is developed from a traditional relay schematic diagram. The user only needs to program the ELC in Relay Ladder Logic.

Large power output relays with switching capacity of 10A are provided

The ELC includes large power output relays with a per point switching capacity of 10A at 250V AC, or 8A at 30V DC. These output relays can be directly connected to illumination lamps and valves for control.

Schedule management is achieved by using clock function

The ELC's equipped with RTC allow the user to program a daily or weekly control schedule without expensive time management system. Also, the ELC incorporates day light savings time.

2 channel analog inputs are standard (DC 24 V, with RTC)

The ELC comes equipped with 2 channel analog inputs standard. Simple control of analog applications, such as temperature, speed, and voltage can be achieved without any optional analog device.

Password feature is provided for security

The ELC contains a password feature for preventing unexpected modification of software with switch operation.

Special mounting hardware is not required

The ELC can be mounted with screws on sliding type mounting holes as well as DIN rails without using any special mounting clamps.

Maintenance-free EEPROM is used

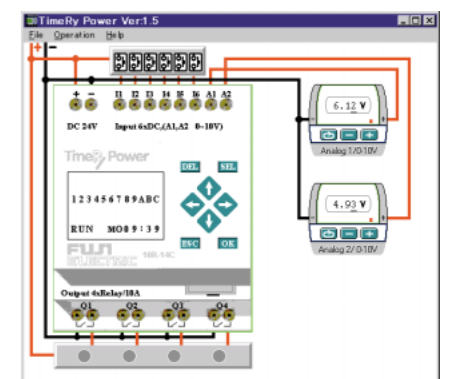
Since software information is stored into an EEPROM that does not require battery backup, the ELC is maintenance free.

Complies with CE marking and UL/cUL standards

The ELC is widely applicable throughout the world, with various global standards such as CE marking and UL.

Software data saving with loader and simulation via personal computer can be done

Software data can be saved by using the loader software program. The data will help the user to standardize wiring diagrams. Also, the configured logic can be simulated in a personal computer, and therefore performance of the logic scheme in the ELC can be verified prior to installation.



Specifications

General specifications

	NQ2P10R-14□	NQ2P20R-14□	NQ2P10R-52□	NQ2P20R-52□
Power supply voltage	20.4 to 28.8V DC		85 to 264V AC	
Power consumption	2W	3W	3VA	7VA
Output current	Max. 10A			
Electrostatic discharge	IEC801-2 Severity3 Contact discharge ±4kV, aerial discharge ±8kV			
Radioelectromagnetic field	IEC801-3 10V/m			
Operating ambient temperature	IEC801-4 Severity3 2kV 0 to 55°C			
Relative humidity	20 to 90%RH no condensation			
Vibration	IEC68-2-6 9.8m/s ²			
Shock	IEC68-2-27 147m/s ²			
Construction	IP20			

I/O specifications

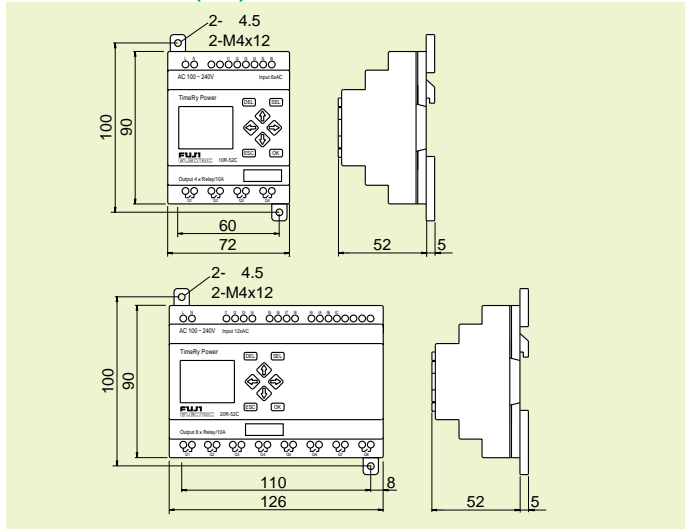
	NQ2P10R-14□	NQ2P20R-14□	NQ2P10R-52□	NQ2P20R-52□
Input	No. of input points	6points	12points(10points**)	6points
	Rated voltage	0 to 28.8V DC		0 to 265V AC
	Rated current	3mA/24V		0.5mA/110V 1mA/230V
	Operating voltage	ON:15 to 28.8V OFF:0 to 5V		ON:79 to 265V OFF:0 to 40V
	Delay time	OFF→ON:3ms ON→OFF:5ms		OFF→ON:50ms ON→OFF:50ms
	Analog voltage*	0 to 10V DC Resolution:8bits		—
Output	No. of output points	4points	8points	4points
	Load current	10A/250V AC or 8A/30V DC		

*Analog input: only for NQ2P10R-14C, NQ2P20R-14C

**NQ2P20R-14C

	NQ2P□R-□	NQ2P□R-□C
Programming language	Ladder, function block	
Program memory capacity	240steps (4elements x 60lines)	
Backup	Built-in EEPROM, memory pack option	
Input relay	12points (I1 to C)	
Output relay	8points (Q1 to Q8)	
Auxiliary relay	15points (M1 to MF)	
RTC relay	8points (R1 to R8)	
Counter	15points (C1 to C8)	
Timer	4points (T1 to TF)	
Analog comparison	4points (G1 to G4)	
Analog input	X	2channel (A1 to A2) only for DC
RTC	X	○

Dimensions (mm)



Products

Item	Ordering code (Product code)	Specification
TimeRy Power	NQ2P10R-14	24V DC power supply, input 6points, output 4points Ry10A, no clock function
	NQ2P10R-14C	24V DC power supply, input 6points, output 4points Ry10A, clock function, analog 2channel
	NQ2P10R-52	100 to 240V AC power supply, input 6points, output 4points Ry10A, no clock function
	NQ2P10R-52C	100 to 240V AC power supply, input 6points, output 4points Ry10A, clock function
	NQ2P20R-14	24V DC power supply, input 12points, output 8points Ry10A, no clock function
	NQ2P20R-14C	24V DC power supply, input 10points, output 8points Ry10A, clock function, analog 2channel
	NQ2P20R-52	100 to 240V AC power supply, input 12points, output 8points Ry10A, no clock function
	NQ2P20R-52C	100 to 240V AC power supply, input 12points, output 8points Ry10A, clock function
Loader software	NQ4H-SE	Personal computer loader software (with connection cable)
Memory pack	NQ8P-MP	For program saving and transferring

⚠ Safety Considerations

- For safe operation, before using the product read the instruction manual or user manual that comes with the product carefully or consult the Fuji sales representative from which you purchased the product.
- Some of the products listed in this catalog may have limits on their use or location or may require periodic inspections. Call Fuji's sales representative for further information.
- For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

●Appearance and specifications are subject to change without prior notice for the purpose of product improvement.

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