

REMOTE PLC

INTRODUCING
FEATURES
CONNECTIONS
APPLICATIONS
CERTIFICATES



Remote PLC ELC and EXM Series

COMPARISON TABLE

Remote PLCs are represented by ten models. Device versions are available with 12V / 24VDC and 120V / 240V AC power, analog inputs (0-10V, 0-20mA, PT100), high-speed inputs and outputs, and a model with audio output.

	ELC-12AC-R-N
	ELC-12DC-DA-R-N
	EXM-8AC-R
	EXM-8DC-PT100-R(-4G)
	EXM-12DC-DA-R(-4G)
	EXM-12DC-DAI-R(-4G)
	EXM-12DC-DA-R-N(-4G)
	EXM-12DC-DA-R-VN
	EXM-12DC-DA-RT-WIFI
	EXM-12DC-DA-RT(-4G)WIFI



Ethernet



GSM-GPRS



Wi-Fi

✓		
✓		
	✓	
	✓	
	✓	
	✓	
✓	✓	
✓	✓	
✓		✓
✓	✓	✓

GENERAL FEATURES



REAL TIME CLOCK /
CALENDAR



DATA LOGGING TO A
MICRO SD CARD
(OPTIONAL)



69 ADVANCED
FUNCTIONAL BLOCKS



FREE SOFTWARE



EXPANSION
INTERFACE



CONTROL, MONITOR AND
SUPERVISE WITH MODBUS



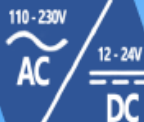
NEW AND IMPROVED
LCD AND KEYPAD



ANDROID APP

POWER

According to the power voltage using in a project you can determine the type of PLC and Power Supply that you need.



Highspeed
60 kHz

HIGH-SPEED INPUTS*

There are numerous applications for high-speed inputs and their associated high-speed counters in the PLC for use with shaft encoders and resolvers.

* - Only in DC models

ANALOG INPUTS - PT100*

Heating and cooling systems can be designed with using PT100 built-in inputs. No need to buy additional module.

* - Only in EXM-8DC-PT100-R(-4G) model



PWM
1 kHz

HIGH-SPEED OUTPUTS*

With high speed outputs, precision and stability, the PLC can easily achieve fine temperature control, proportional valve control, and simple yet practical low cost A outputs.

* - Only in RT models

ANALOG INPUTS - 0-10V (0-20mA)*

The PLC use analog inputs to monitor continuous signals which vary over time. 0-10VDC analog inputs can be configured with a resolution of 10 bit (0-1024).

* - Model EXM-12DC-DAI-R(-4G) has also 0-20mA inputs



AUDIO OUTPUT

Connect an external speaker to play audio alarms or messages that will grab the operator's attention.

* - Only in EXM-12DC-DA-R-VN model

FEATURES

Expansion

EXPANSION MODULES

A wide variety of expansion modules such as Digital I/O, Analog I/O and communication modules are available to create the application you need. Flexibly expandable up to 40DI, 36DO, 36AI and 36AO.

EXM-E-8AC-R	4 digital inputs and 4 Relay Outputs (2x3A + 2x10A)
EXM-E-AI -I	4 analog inputs (0/4-20mA)
EXM-E-PT100	2 analog inputs (thermistor PT100)
EXM-E-AQ-V	2 analog outputs (0-10V)
EXM-E-AQ-I	2 analog outputs (0/4-20mA)
EXM-E-8DC-DA-R	4 digital (4 analog - 0-10V) inputs and 4 Relay Outputs (2x3A + 2x10A)
EXM-E-RS485	Additional RS485 Port

UP TO **8** MODULES



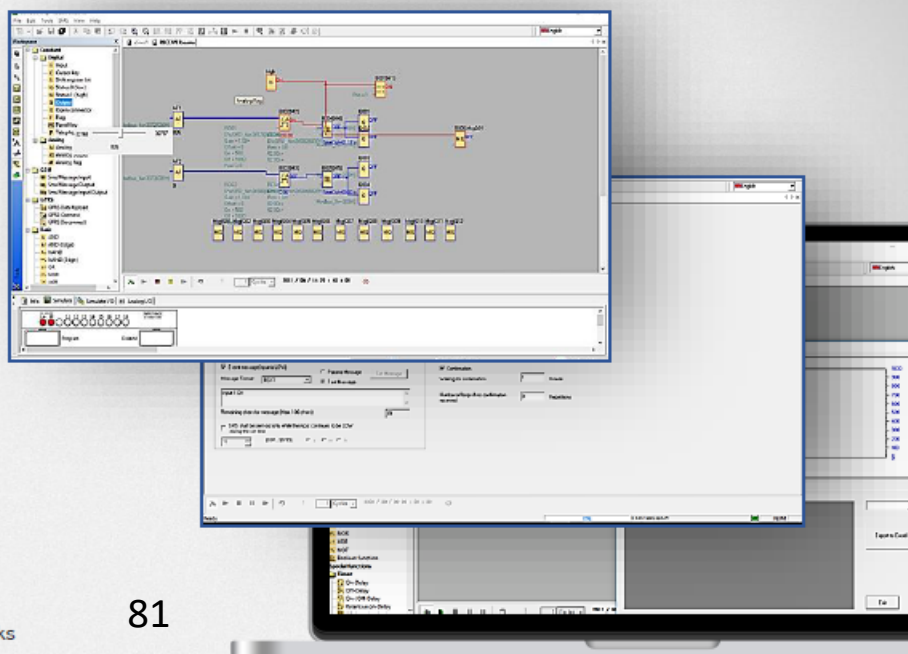
Programming Soft allows you easy programming and configuration of each PLC directly from your PC or Laptop. With guaranteed **"free for life" software updates** you will always have access to the latest software enhancements. Download the software and evaluate at ease via our website rievtech.com.



Ready-made function blocks (over 60 types) and the possibility of the virtual connection of these blocks will help you quickly create a control scheme. There are such block as Timers, Analogue, Communication, Convertors and other.



To simplify debugging and testing programs is available **emulation mode** on your PC. During the simulation, you can simulate actuation sensors, buttons, analog signals, power down. In emulation mode you can clearly see the work of the functional blocks and change their parameters.

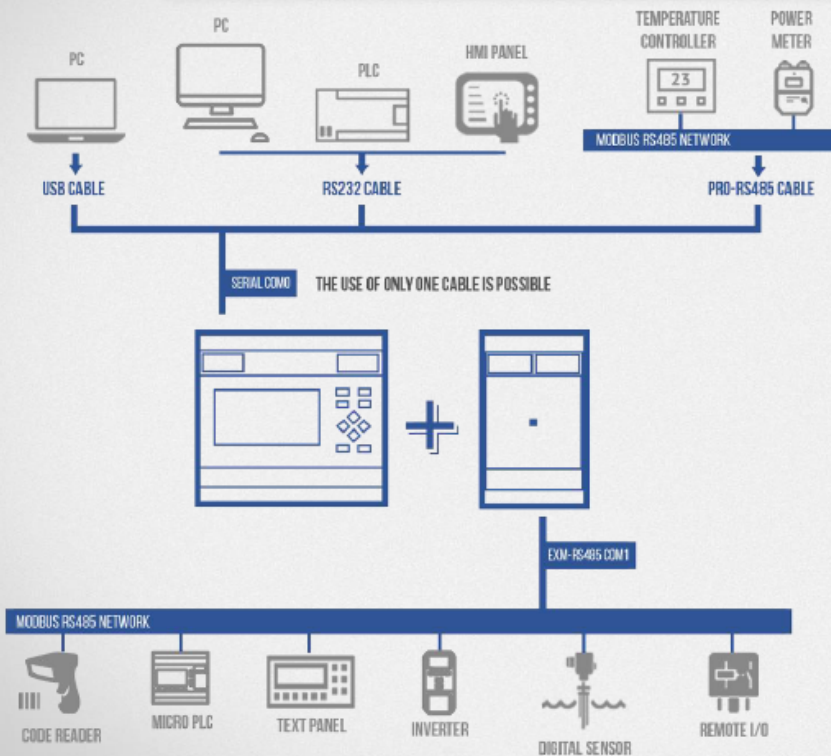


REMOTE PLC

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CONNECTIONS

Serial



CONTROL, MONITOR AND SUPERVISE WITH MODBUS RTU/ASCII MASTER

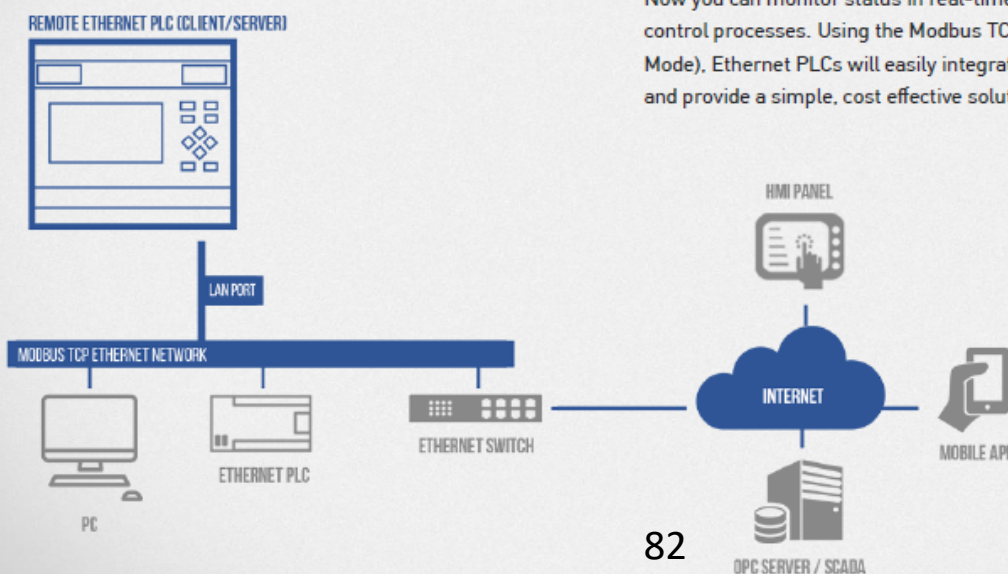
Modbus is the most popular industrial protocol being used today, for good reasons. It is simple, inexpensive, universal, and easy to use.

CONNECTIONS

Ethernet

EMBEDDED ETHERNET PORT

Now you can monitor status in real-time, receive email alerts and control processes. Using the Modbus TCP protocol (Client or Server Mode), Ethernet PLCs will easily integrate into existing networks and provide a simple, cost effective solution for your application.



REMOTE PLC

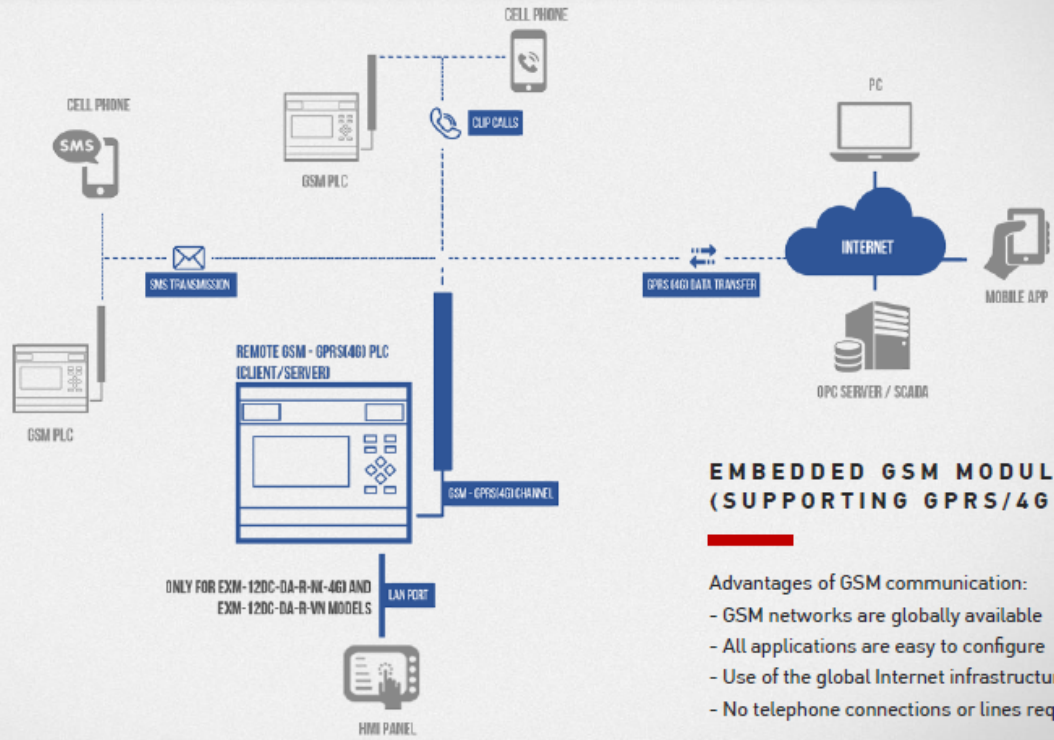
INTRODUCING FEATURES CONNECTIONS APPLICATIONS CERTIFICATES

CONNECTIONS

GSM - GPRS (4G)

GSM - GPRS(4G) PLC

- GPRS (4G), SMS, Email and CLIP support
- Parameters in the program changing by means of SMS via cell phone
- Remote configuration via GPRS and user friendly eSms Config software
- IO status, alarming message includes counters, analog values can be directly sent to Users



EMBEDDED GSM MODULE (SUPPORTING GPRS/4G)

Advantages of GSM communication:

- GSM networks are globally available
- All applications are easy to configure
- Use of the global Internet infrastructure
- No telephone connections or lines required

CONNECTIONS

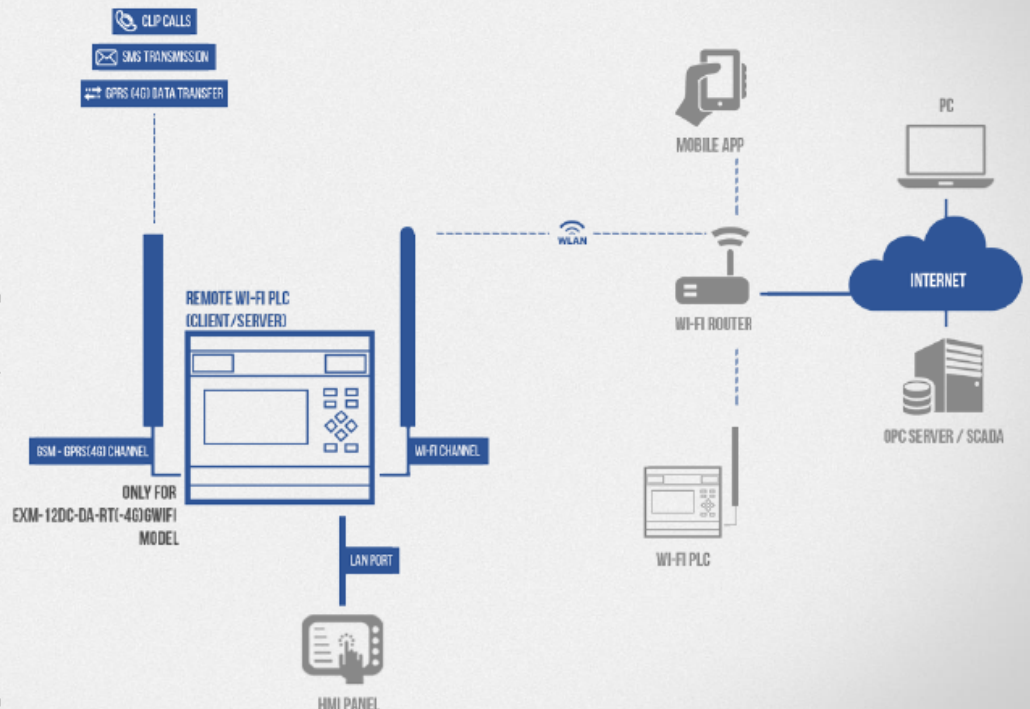
Wi-Fi

ENJOY THE ALL BENEFITS OF WIRELESS CONNECTIVITY.

Wifi plc is a reliable and cost effective alternative to new cable paths for remote control technology, particularly when installing new system parts or replacing defective communication cables.

WI-FI PLC

- Support 802.11b/g/n wireless standards
- Support TCP/IP/UDP network protocols
- Support work as STA/AP mode
- Support Router/Bridge mode networking
- Support Friendly Web Configuration Page (and also can be configured with eSmsConfig).
- Support Palmodic Signal, WIFI connection instruction Outdoor 100m with 3dBi antenna and indoor 40m





xLogic! CPU with Wi-Fi

**Ideal solution for wireless Ethernet connectivity:
the well-proven logic module – now also with Wi-Fi**

Micro Automation

Version: V 1.1

- **Wireless Ethernet connectivity**
- **802.11b/g/n wireless standards**
- **RS232,RS485 with Modbus connectivity**
- **GSM&GPRS function optional**



Ideal solution for wireless Ethernet connectivity

Ideal solution for those projects that require Ethernet connectivity, but require this to be wireless as well, then our range of Wi-Fi programmable logic controllers may be just the solution. For extra connectivity, some of these Wi-Fi PLC's also incorporate a GSM modem, which provides GPRS/SMS connectivity to your micro PLC control system. Meanwhile, our Android app (monitoring and control software for smart phone) can be perfectly applied to our Wi-Fi PLC.

Hence, you can expect to use your Android smart phone to remotely control and monitor your CPU.

the well-proven Wi-Fi to UART modem built-in

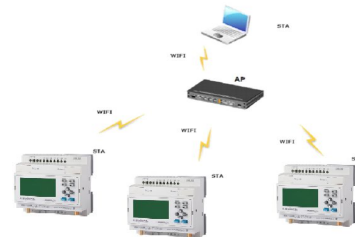
- Support 802.11b/g/n wireless standards
- Support TCP/IP/UDP network protocols
- Support work as STA/AP mode
- Support Router/Bridge mode networking
- Support Friendly Web Configuration Page (and also can be configured with eSmsConfig).
- Support Palmodic Signal, WIFI connection instruction
- Outdoor 100m with 3dBi antenna and indoor 40m;

Function extensions

- Astronomical clock
- Min./Max.
- Average value
- Analog filter
- Stopwatch
- Device Reset
- Comport status

New communication options

A. The networking is mainly used for direct wireless communication (based on the Modbus TCP protocol) between several x-Messenger devices.



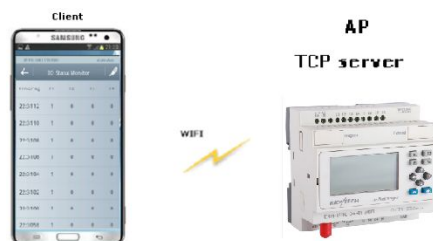
B. Directly communicate with other brand automatic components via TCP/IP connection based on MODBUS TCP protocol



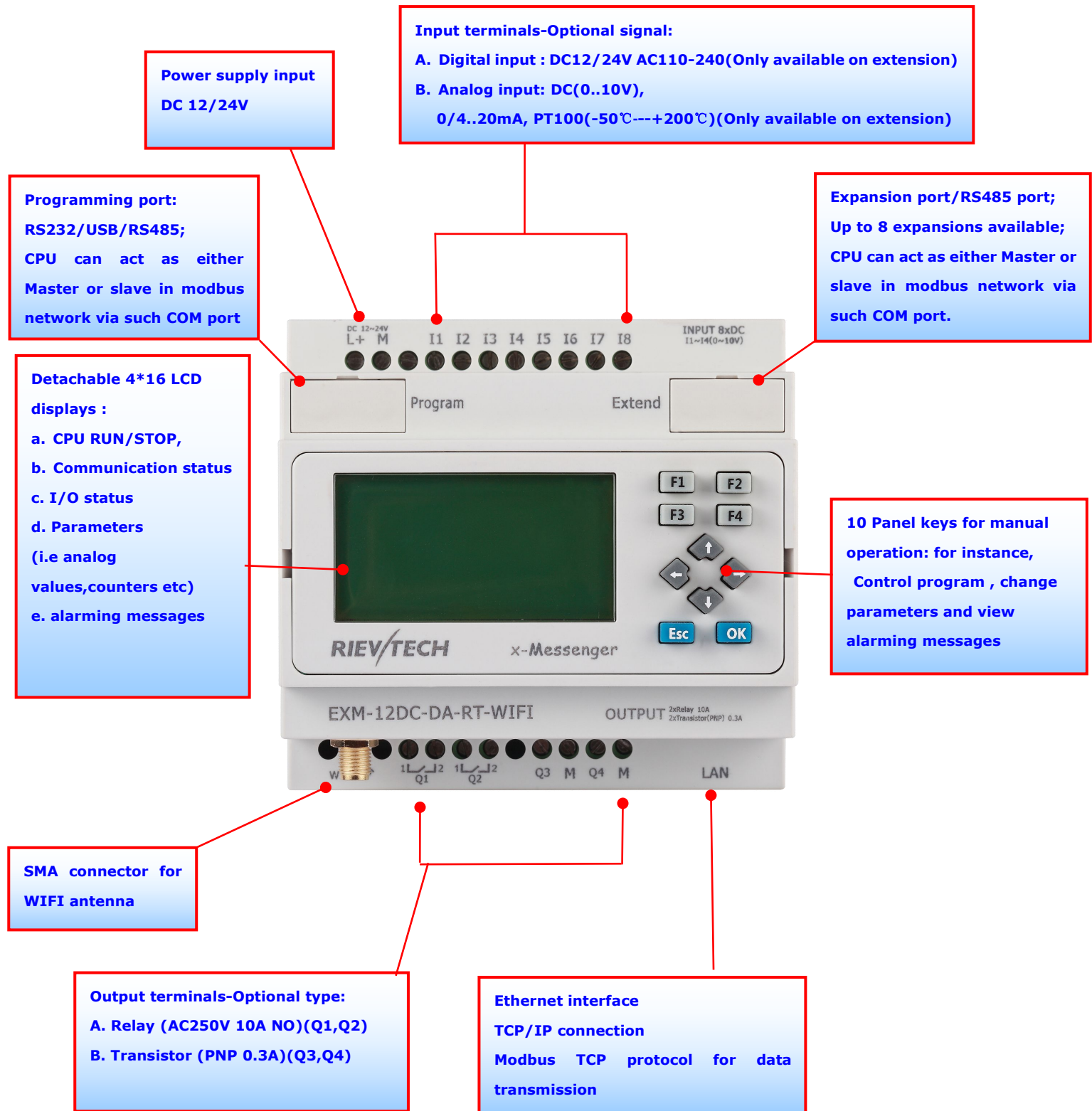
C. Thanks to the modbus blocks we can play the CPU works as master or slave. Combined with RS232&RS485 ports to realize complex communication system.



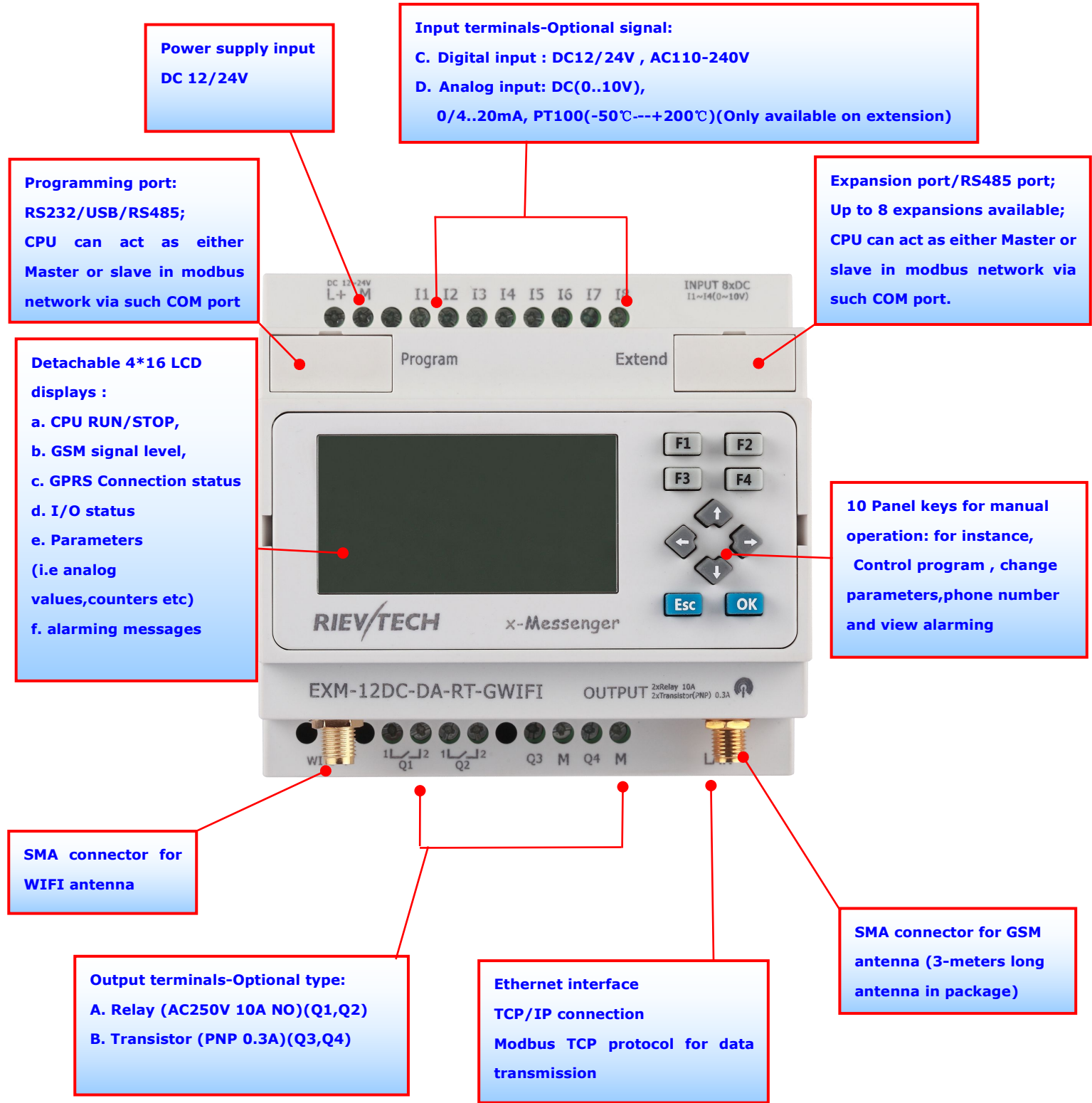
D. Android smart phone directly can be used to monitor and control the Wi-Fi PLC with xLogicApp.



Wi-Fi PLC-No GSM . The anatomy



Wi-Fi PLC-With GSM . The anatomy



Technical specifications

CPU model	EXM-12DC-DA-RT-WIFI	EXM-12DC-DA-RT-GWIFI
Power	DC 12--24V	
Input	8 Digital	8 Digital
Analog input	4 (DC 0...10V)	
Permissible range with signal "0"	10.8 V ... 28.8 V DC	
with signal "1"	Max. 3 V DC,1mA	
Input current	Max.8 V DC,1.5 mA	
Output	2 Relay +2Transistor(PNP)	
Continuous current	Relay:10 A with resistive load;2 A with inductive load Transistor: 0.3A	
Short-circuit protection	External fuse required	
Switching frequency	Relay: 2 Hz with resistive load; 0.5 Hz with inductive load Transistor: 1KHz	
Wi-Fi modem	Yes	
RTC (real time clock)	Yes	
LCD panel	Yes (4*16 characters)	
PWM output	Yes	
High speed input	I7,I8 (60KHZ)	
Ethernet interface	Yes	
Data logger	ELC-MEMORY optional ;No SD card socket	
Communication port	1 RS232,1 Expansion port/RS485, 1Ethernet/Wi-Fi	
SMS	NO	YES
GPRS	NO	YES
Communication protocol	Modbus RTU/ASCII/TCP	
Expansion	Yes	
25°C RTC backup time	20days	
Ambient temperature	-20°C to + 55 °C	
Storage temperature	- 40 °C to+ 70 °C	
Degree of protection	IP20	
Certification	CE	
Mounting	On 35 mm standard mounting rail, 4 MW, or wall-mounting	
Dimensions	W x H x D (95*90*68 mm)	
Weight	500g	
Support 802.11b/g/n wireless standards		
Support TCP/IP/UDP network protocols		
Support work as STA/AP mode		
Support Router/Bridge mode networking		
Support Transparent/Agreement Transmission Mode(Transparent used by EXM CPU)		
Support Friendly Web Configuration Page or configuration by eSmsconfig		
Outdoor 100m with 3dBi antenna and indoor 40m		
FCC /CE Certificated		



xLogic! CPU Built-in Ethernet

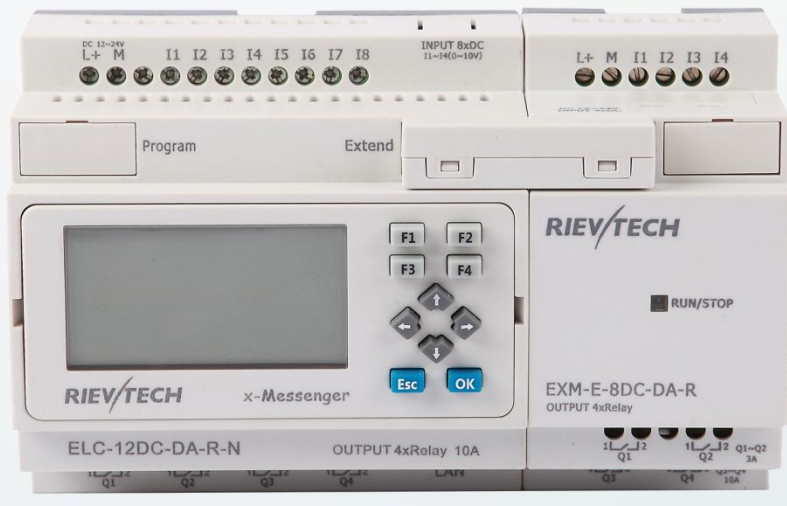
Reduce cost for you:

the well-proven logic module – now also with Ethernet interface

Micro Automation

Version: V 1.0

- **Standard Ethernet interface for communication with further xLogic/x-Messenger CPU or other automation Components.**
- **Also can be applied to be programmed or connected with easySCADA for building up a simple monitoring system.**



Wish to reduce the cost for customers

The developmental leap forward can even be seen on the outside of our xLogic Ethernet CPU: All the previous communication ports are reserved, extra-added an Ethernet interface on the underside of the device. Compare to use CPU plus Ethernet extension module, The CPU with Ethernet built-in will reduce the cost a lot for customers.

Flexible IO extensions

All PR-E series extension modules which used for standard PR-24 series CPU can be used with PR-22 Ethernet CPU. expandable up to 94 DI, 88 DO, 26 AI, and 18 AO

All EXM-E series extension modules which used for standard EXM-12 series CPU can be used with ELC-12 Ethernet CPU. expandable up to 40 DI, 36 DO, 36 AI, and 16 AO

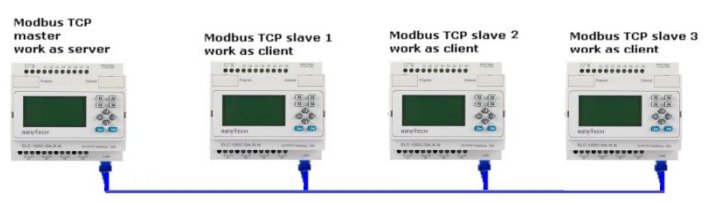
Function extensions

- Astronomical clock
- Min./Max.
- Average value
- Analog filter
- Stopwatch
- Device Reset
- Comport status

New communication options

A. The networking is mainly used for direct communication between several xLogic devices. The advantages that result from this:

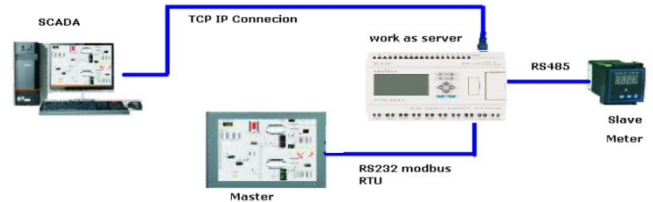
- Increasing the number of I/Os in a configuration. One CPU executes the program and the others only serve as an I/O expansion – without processing their own program. This means that a multi-cell layout in the control cabinet is now also possible.
- Expansion of the program memory. All logic modules process their own program and only exchange some of the data among each other.



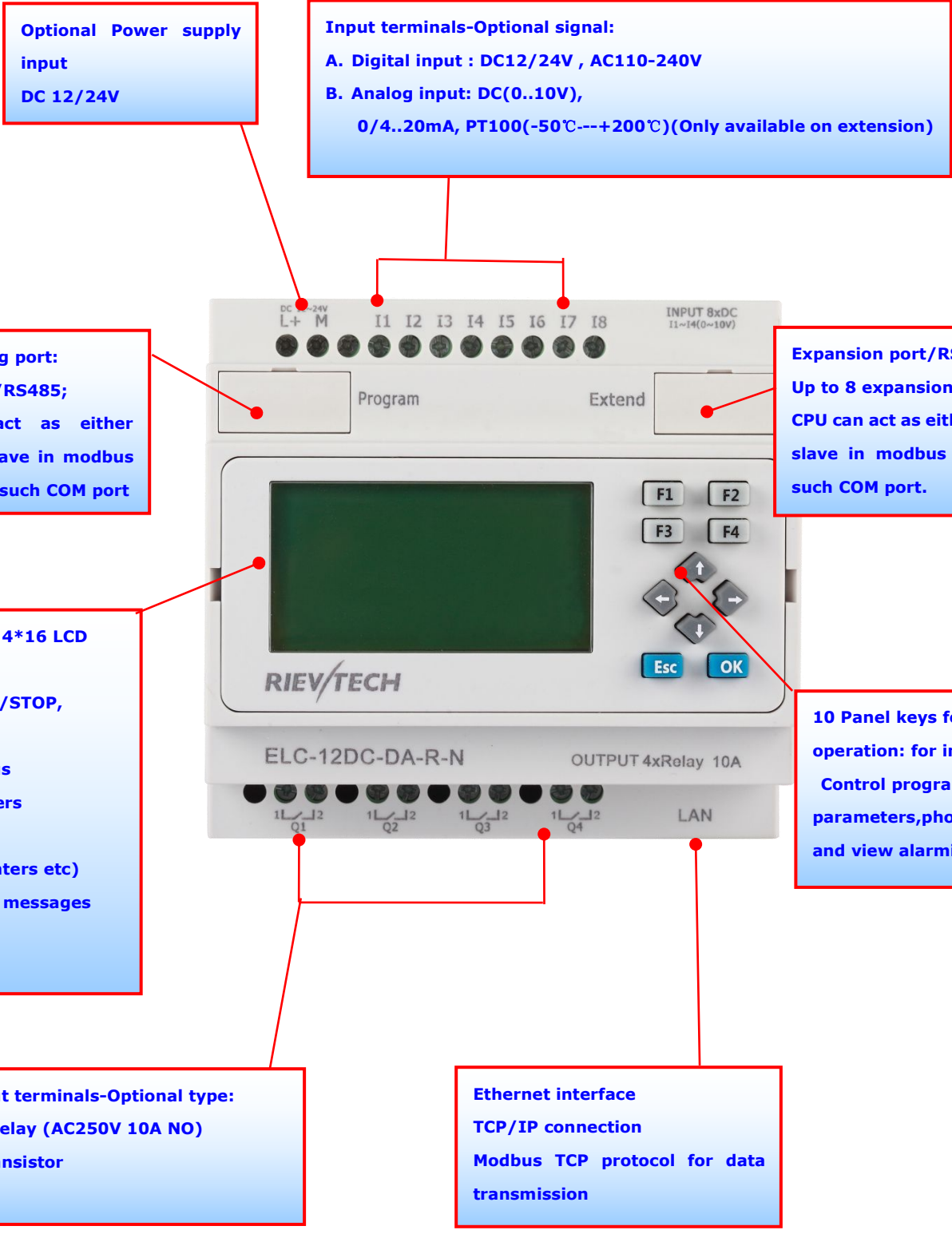
B. Directly communicate with other brand automatic components via TCP/IP connection based on MODBUS TCP protocol.



C. Thanks to the modbus blocks we can play the CPU works as master or slave. Combined with RS232&RS485 ports to realize complex communication system.



Ethernet PLC(ELC-12) . The anatomy



Technical specifications

	ELC-12DC-DA-R-N
Power	DC 12--24V
Input	8 Digital
Analog input	4 (DC 0...10V)
Permissible range with signal "0"	10.8 V ... 28.8 V DC Max. 3 V DC,1mA
with signal "1"	Max.8 V DC,1.5 mA
Input current	
Output	4 Relay
Continuous current	10 A with resistive load;2 A with inductive load
Short-circuit protection	External fuse required
Switching frequency	2 Hz with resistive load; 0.5 Hz with inductive load
RTC (real time clock)	Yes
LCD panel	Yes (4*16 characters)
PWM output	No
High speed input	I7,I8 (60KHZ)
Ethernet interface	Yes
Data logger	ELC-MEMORY optional ;No SD card socket
Communication port	1 RS232,1 Expansion port/RS485, 1 Ethernet
Communication protocol	Modbus RTU/ASCII/TCP
Expansion	Yes
25°C RTC backup time	20 days
Ambient temperature	-20 °C to + 55 °C
Storage temperature	- 40 °C to+ 70 °C
Degree of protection	IP20
Certification	CE
Mounting	On 35 mm standard mounting rail, 4 MW, or wall-mounting
Dimensions	W x H x D (95*90*68 mm)

CPU model	ELC-12AC-R-N
Power	AC 110--240V /DC 160-260V
Input	8 Digital
Analog input	No
Permissible range with signal "0"	85 ... 265 V AC Max.40 V AC 0.03 mA
with signal "1"	Max. 79 V AC, 0.08 mA
Input current	
Output	4 Relay
Continuous current	10 A with resistive load;2 A with inductive load
Short-circuit protection	External fuse required
Switching frequency	2 Hz with resistive load; 0.5 Hz with inductive load
RTC (real time clock)	Yes
LCD panel	Yes (4*16 characters)
PWM output	No
High speed input	No
Ethernet interface	Yes
Data logger	ELC-MEMORY optional ;No SD card socket
Communication port	1 RS232,1 Expansion port/RS485, 1 Ethernet
Communication protocol	Modbus RTU/ASCII/TCP
Expansion	Yes
25°C RTC backup time	20 days
Ambient temperature	-20 °C to + 55 °C
Storage temperature	- 40 °C to+ 70 °C
Degree of protection	IP20
Certification	CE
Mounting	On 35 mm standard mounting rail, 4 MW, or wall-mounting
Dimensions	W x H x D (95*90*68 mm)