Model:ELC-12DC-DA-R-N

GENERAL SPECIFICATIONS

Timers : 512

Counters : 512

Function Blocks: 512

Operation temp. : -20℃-55℃

Storage:-40℃-70℃

Protection: IP20(Non-waterproof)

RTC accuracy: MAX ±2S/day

RTC Backup at 25 °C: 20 days

Program and settings Backup :10 years

Data Power-off retentivity: 10 years

Dimensions: 95*90*67 (Unit, mm）

Certificate: CE

Installation: 35mm-DIN rail or screw for installation

Modify parameters via keypad LCD: yes

Password protection : 4-digit number password protection or disable program upload function

Communication interface : 1 Program/RS232 port (TTL interface）

Communication protocol : Modbus RTU/ASCII

It's optional for xLogic to be either slave or master in Modbus network.

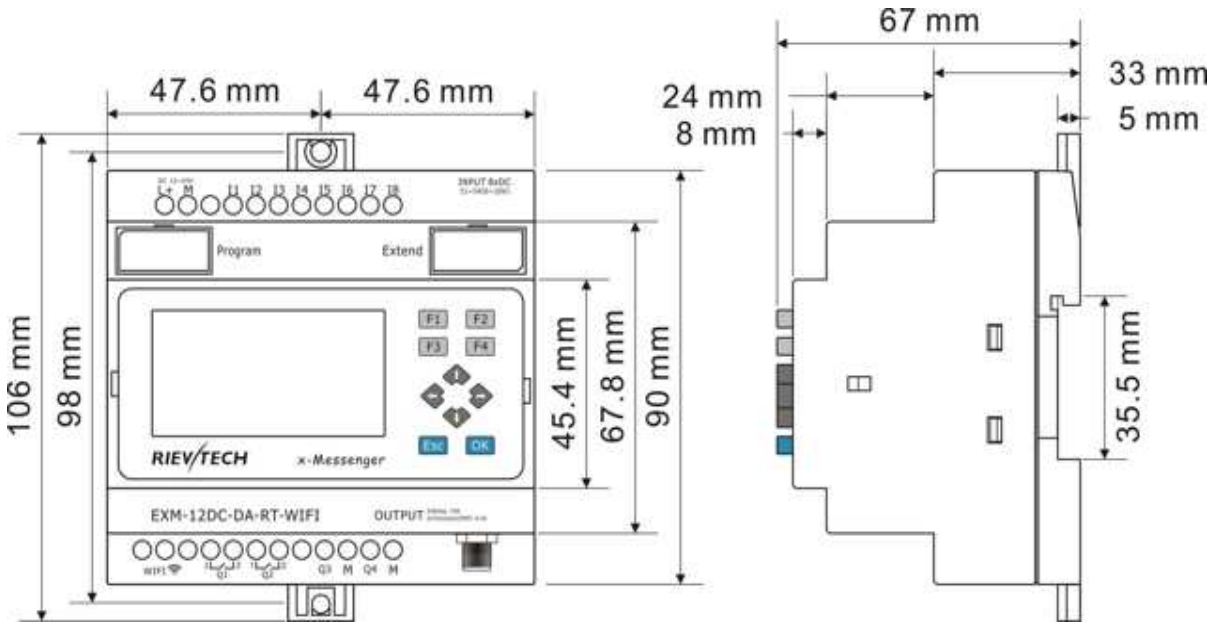
Technical Index

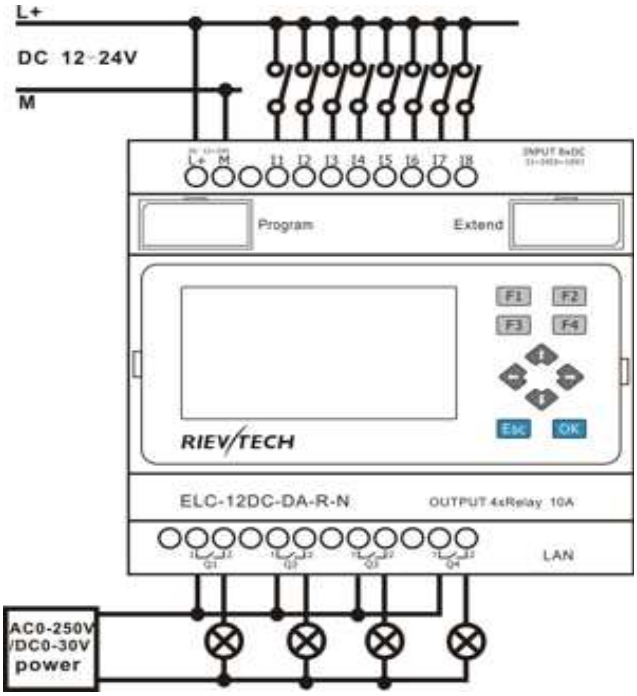
Power supply:		
Nominal voltage	DC 12-24V	
Operating limits	DC 10.8-28.8V	
Immunity from micro power cuts	Typ.5 ms	
Max. Startup current	Max. 0.25A	
Max. absorbed power	3.5 W (10.8V dc) ; 4 W (28.8V dc)	
Protection against polarity inversions	Yes	
Input parameters:		
Input No	8 (I1-I8)	
Digital input	8 (I1-I8)	
Analogue input	4 (I1-I4)(0..10V DC)	
Digital inputs(I5-I8)		
Input voltage	DC0-28.8V	
Input signal0	< 5V DC; <1mA	
Input signal1	> 8 V DC;>1.7mA	
Input current	2.3mA @ 10.8V dc 2.6mA @ 12.0 V dc 5.2 mA @ 24 V dc 6.3 mA @ 28.8 V dc	
Response time	0 to 1 ： <1 ms ； 1 to 0 ： <1 ms	

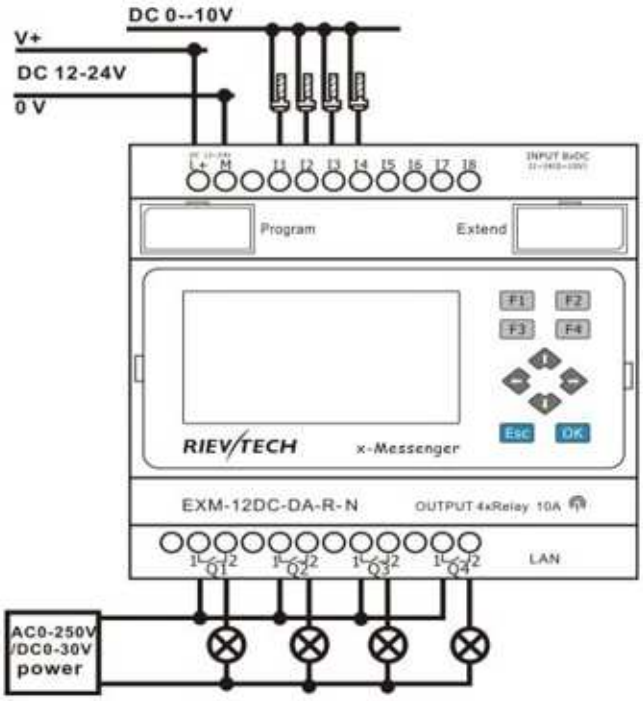
Maximum counting frequency	60k Hz(I7--I8)	
Sensor type	Contact or 3-wire PNP	
Input type	Resistive	
Isolation between power supply and inputs	None	
Isolation between inputs	None	
Inputs used as digital inputs(I1-I4)		
Input voltage	DC0-28.8V	
Input signal0	< 5V DC;<0.1mA	
Input signal1	> 8 V DC;>0.3mA	
Input current	0.4mA @ 10.8V dc 0.5mA @ 12.0 V dc 1.2mA @ 24 V dc 1.5mA @ 28.8 V dc	
Response time	0 to 1 ：Typ. 1.5 ms ；1 to 0 ：Typ. 1.5 ms	
Maximum counting frequency	Typ.：4 HZ	
Sensor type	Contact or 3-wire PNP	
Input type	Resistive	
Isolation between power supply and inputs	None	
Isolation between inputs	None	
Inputs used as analog inputs(I1-I4)		
Measurement range	DC 0---10V	
Input impedance	Min, 24KΩ ; Max. 72KΩ	
Input voltage	28.8 V DC max	
Resolution	10bit ,0.01V	
Accuracy at 25 °C	± (Max.0.02)V	
Accuracy at 55 °C	± (Max.0.04)V	
Isolation between analog channel and power supply	None	
Cable length	10 m max.　shielded and twisted	
Output parameters:		
Output No.	4 (Q1-Q4)	
Output type	Relay output	
Continuous current	Resistive load 10A/Inductive load 2A	
Max. breaking voltage	AC 250 V DC 110 V	
Max. Allowable Power Force	1250VA 300W	
Electrical durability Expectancy	10^5 Operations at Rated Resistive Load	
Mechanical life	10^7 Operations at No Load condition	
Response time	Operate Time : 15 mSec. Max. Release Time : 10 mSec. Max.	
Built-in protections	Against short-circuits: None Against overvoltages and overloads: None	
Switch frequency:		

Mechanism	10Hz	
Resistor/light load	2Hz	
Sensitive load	0.5Hz	
Other parameters:		
Ethernet port:	Built-In(10M/100M)	
Xlogic<--->Xlogic(by Ethernet)	1 xlogic works as server can connect 3 client xlogics.	
Xlogic<--->Etherne/Internet:	xlogic works as TCP server or TCP client	
Weight	Approx.300g	

Installation Dimensions & Wiring Diagram




L+
DC 12-24V
M
Program
Extend
F1
F2
F3
F4
Esc
OK
RIEV/TECH
ELC-12DC-DA-R-N
OUTPUT 4xRelay 10A
LAN
AC0-250V
/DC0-30V
power


DC 0--10V
V+
DC 12-24V
0 V
Program
Extend
F1
F2
F3
F4
Esc
OK
RIEV/TECH
x-Messenger
EXM-12DC-DA-R-N
OUTPUT 4xRelay 10A
LAN
AC0-250V
/DC0-30V
power

Program(xlogicsoft) Specification

SYSTEM	Operating System requirements	Windows /2000/XP/WIN7/WIN8			
	Programming languages	Function block			
	Program Memory	512			
	Execution Speed	<0.1ms per function			
	LCD Display	4 lines x 16 characters			
	Functions	Up to 70 function blocks			
BASIC	Timers				a.On-delay; b.Off-delay etc. Up to 12 kind Timers
	Maximum Number	512			
	Timing Ranges	10ms--99 h59m			
	Counters				a.Up/down Counter b.Hours Counter c.Frequency Threshold Trigger
	Maximum Number	512			
	Highest Count	99999999			
	Resolution	1			
	RTC				a.Weekly Timer b.Yearly Timer
	Number available	512			
	Resolution	1 min			
	Time span available	Week/year-month-day-hour-min			
	Flags				a.Digital Flag b.Analog Flag
	Digital flags	128			
	Analog flags	256			
	PI Functions				a.PI Controller
	Number available	30			
	Parameter Ranges	1-32767			
	Analog Math				a.Analog Math b.Analog Math Error detection
	Number available	1024			
	Function	ADD, Subtract,Multiply, Divide			
	Analog Ramp Function				a. Analog Ramp
	Number available	55			
	Compare Function				a.Analog compactor
	Number available	512			b.Comparison of 2 values
Special Functions	HMI Screens				a.Message texts
	Number available	128			
	Display/Edit	Preset Current value and Free text			
	PWM Functions				a.PWM
	Number available	512			
	Communication Functions				a.Modbus write b.Modbus read
	Number available	512(Only CPU works as Master need these 2 blocks, slave does not need)			
	Word/bit data Conversion	Square Boot	Sin/Cos	RS latch relay	
	Data-logger Function	Analog watchdog	Analog filter	Average value	
	Pumps Management	Defrost function	Multiplexer	Pulse Relay	
	Cam Control	Astronomical clock	Stop watch	Boolean function	

Note: 1.Not all program functions are listed in this table i.e. AND,NAND,OR,NOT,NOR,XOR,SHIFT REGISTER,DATA LATCHING RELAY, COMPORT STATUS etc.