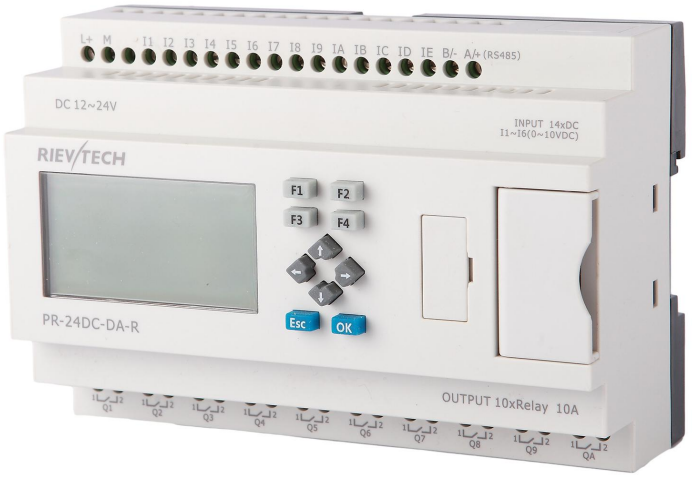
◆ Technical Data:

Model:PR-24DC-DA-R

GENERAL SPECIFICATIONS



Timers : 1024

Counters : 1024

Function Blocks: 1024

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

Modify parameters via keypad LCD: yes

Dimensions: 133*90*61（Unit： mm）

Certificate: CE

Installation: 35-DIN rail or screw for installation

Expansion capacity: 16 modules (PR-E-16)

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

Communication interface : 1 RS232 port & 2 RS485 port

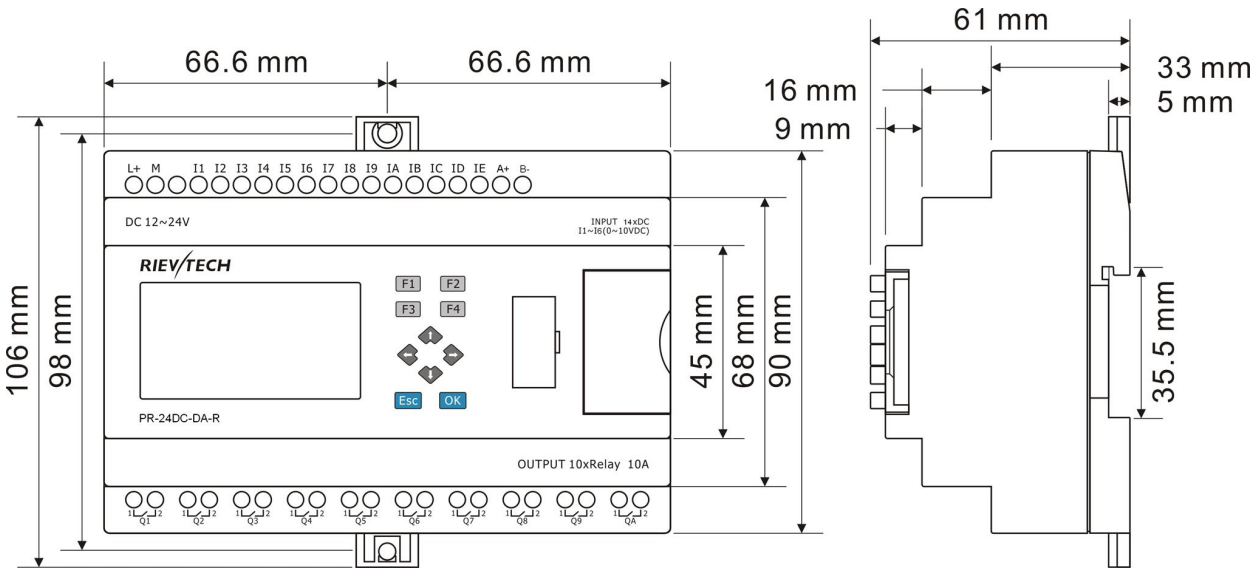
Communication protocol : Modbus RTU/ASCII

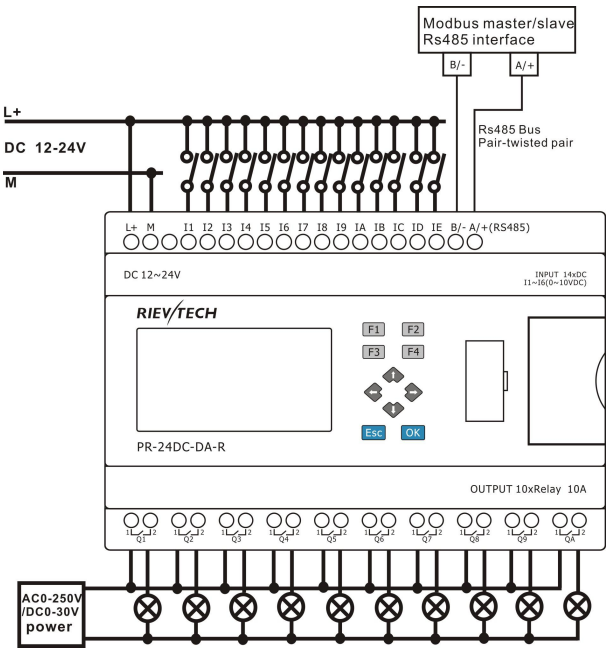
Technical Index

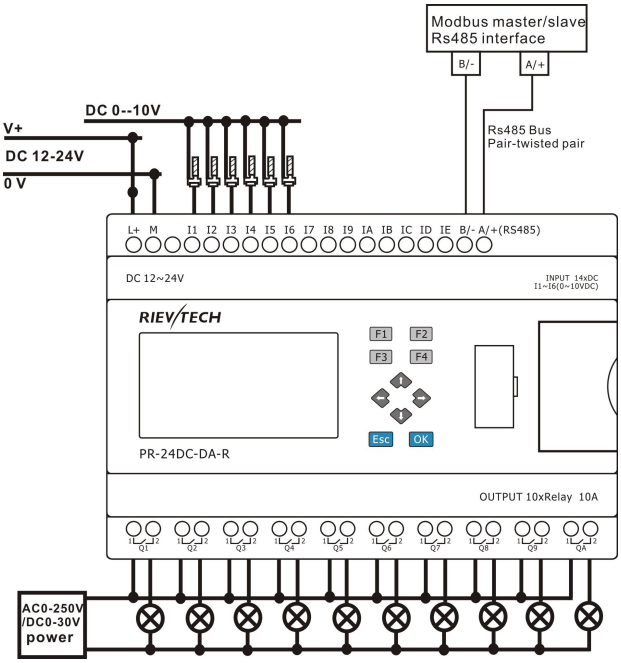
Power supply:	
Nominal voltage	DC 12-24V
Operating limits	DC 10.8-28.8V
Immunity from micro power cuts	Typ.5 ms
Max. Startup current	Max. 0.25A
Max. absorbed power	3.5 W (10.8V dc) ; 4 W (28.8V dc)
Protection against polarity inversions	Yes
Input parameters:	
Input No	14 (I1-IE)
Digital input	14 (I1-IE)
Analogue input	6 (I1-I6)(0..10V DC)
Digital inputs(I7-IE)	
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(I9--IC)

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-I6)	
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-I6)	
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.	10(Q1-QA)
Output type	Relay output
Max. Allowable Power Force(Resistive)	CE: 10A,250V AC/DC30V UL/CUL:10A,250V AC; 5A, DC28V
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:	
Weight	Approx.500g

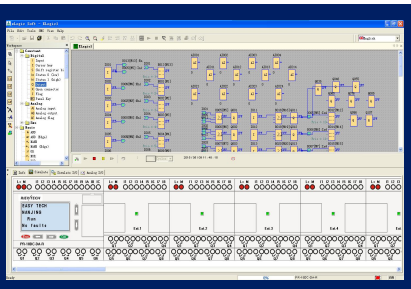
Installation Dimensions & Wiring Diagram


66.6 mm
66.6 mm
61 mm
16 mm
9 mm
33 mm
5 mm
106 mm
98 mm
45 mm
68 mm
90 mm
35.5 mm
L+ M I1 I2 I3 I4 I5 I6 I7 I8 I9 IA IB IC ID IE A+ B-
DC 12~24V
INPUT 14xDC
I1~I6(0~10VDC)
RIEVTECH
F1 F2
F3 F4
Esc OK
PR-24DC-DA-R
OUTPUT 10xRelay 10A
Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 QA


Modbus master/slave
Rs485 interface
B/-
A/+
L+
DC 12-24V
M
Rs485 Bus
Pair-twisted pair
L+ M I1 I2 I3 I4 I5 I6 I7 I8 I9 IA IB IC ID IE B/- A/+(RS485)
DC 12~24V
INPUT 14xDC
I1~I6(0~10VDC)
RIEVTECH
F1 F2
F3 F4
Esc OK
PR-24DC-DA-R
OUTPUT 10xRelay 10A
Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 QA
AC0-250V
/DC0-30V
power


Modbus master/slave
Rs485 interface
B/-
A/+
DC 0--10V
V+
DC 12-24V
0 V
Rs485 Bus
Pair-twisted pair
L+ M I1 I2 I3 I4 I5 I6 I7 I8 I9 IA IB IC ID IE B/- A/+(RS485)
DC 12~24V
INPUT 14xDC
I1~I6(0~10VDC)
RIEVTECH
F1 F2
F3 F4
Esc OK
PR-24DC-DA-R
OUTPUT 10xRelay 10A
Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 QA
AC0-250V
/DC0-30V
power

Program(xlogicsoft) Specification

SYSTEM	Operating System requirements	Windows /2000/XP/WIN7/WIN8			
	Programming languages	Function block			
	Program Memory	1024			
	Execution Speed	<0.1ms per function			
	LCD Display	4 lines x 16 characters			
	Functions	Up to 70 function blocks			
BASIC	Timers				a.On-delay;
	Maximum Number	1024			b.Off-delay etc.
	Timing Ranges	10ms--99 h59m			Up to 12 kind Timers
	Counters				a.Up/down Counter
	Maximum Number	1024			b.Hours Counter
	Highest Count	99999999			c.Frequency Threshold Trigger
	Resolution	1			
	RTC				a.Weekly Timer
	Number available	1024			b.Yearly Timer
	Resolution	1 min			
	Time span available	Week/year-month-day-hour-min			
	Flags				a.Digital Flag
	Digital flags	256			b.Analog Flag
	Analog flags	256			
	PI Functions				a.PI Controller
	Number available	30			
	Parameter Ranges	1-32767			
	Analog Math				a.Analog Math
	Number available	1024			b.Analog Math Error detection
	Function	ADD, Subtract,Multiply, Divide			
	Analog Ramp Function				a. Analog Ramp
	Number available	55			
	Compare Function				a.Analog compactor
	Number available	1024			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	1024, (2 fast output for Transistor)			
	Communication Functions				a.Modbus write
	Number available	1024(Only CPU works as Master need these 2 blocks, slave does not need)			b.Modbus read
	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.