

Model:PR-24DC-DA-R

GENERAL SPECIFICATIONS

Timers : 1024

Counters : 1024

Function Blocks: 1024

Operation temp.: -20°C-55°C

Storage:-40°C-70°C

Protection: IP20(Non-waterproof)

RTC accuracy : MAX $\pm 2S/day$

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

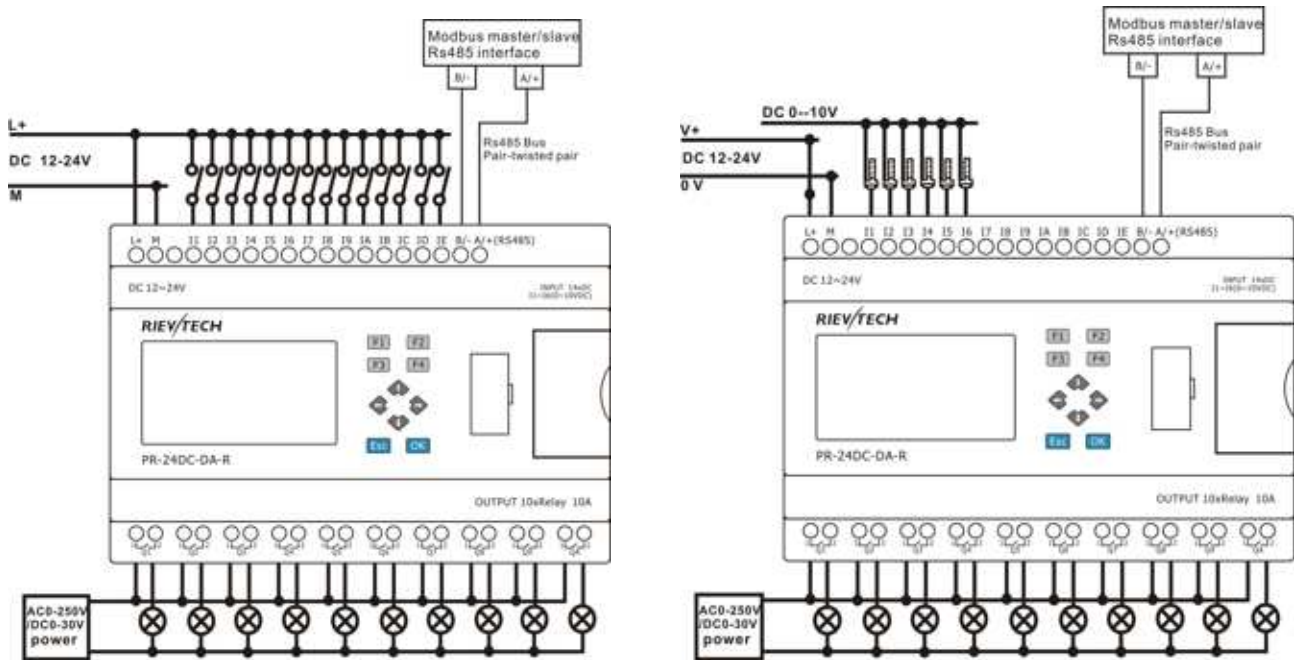
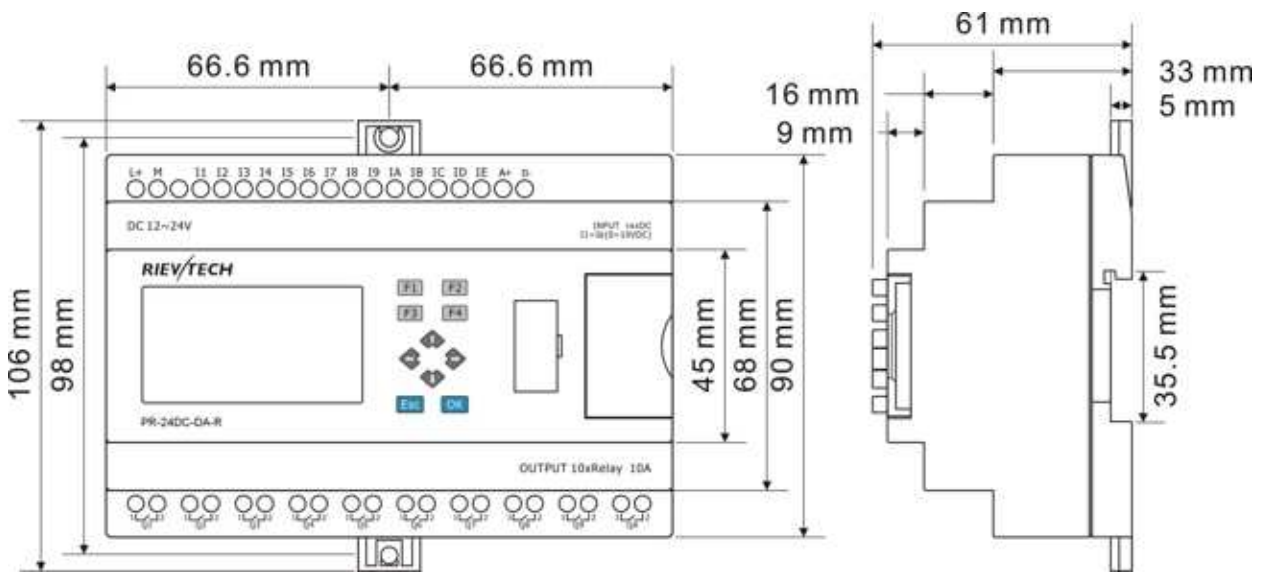


Technical Index

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, 24K Ω ; Max. 72K Ω
Input voltage	28.8 V DC max
Resolution	10bit ,0.01V
Accuracy at 25 °C	\pm (Max.0.02)V
Accuracy at 55 °C	\pm (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
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:	
Weight	Approx.500g

Installation Dimensions & Wiring Diagram



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