

◆ Technical Data:

Model:PR-18DC-DA-RT

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 ±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: 95*90*55 (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 & 1 RS485 port

Communication protocol : Modbus RTU/ASCII



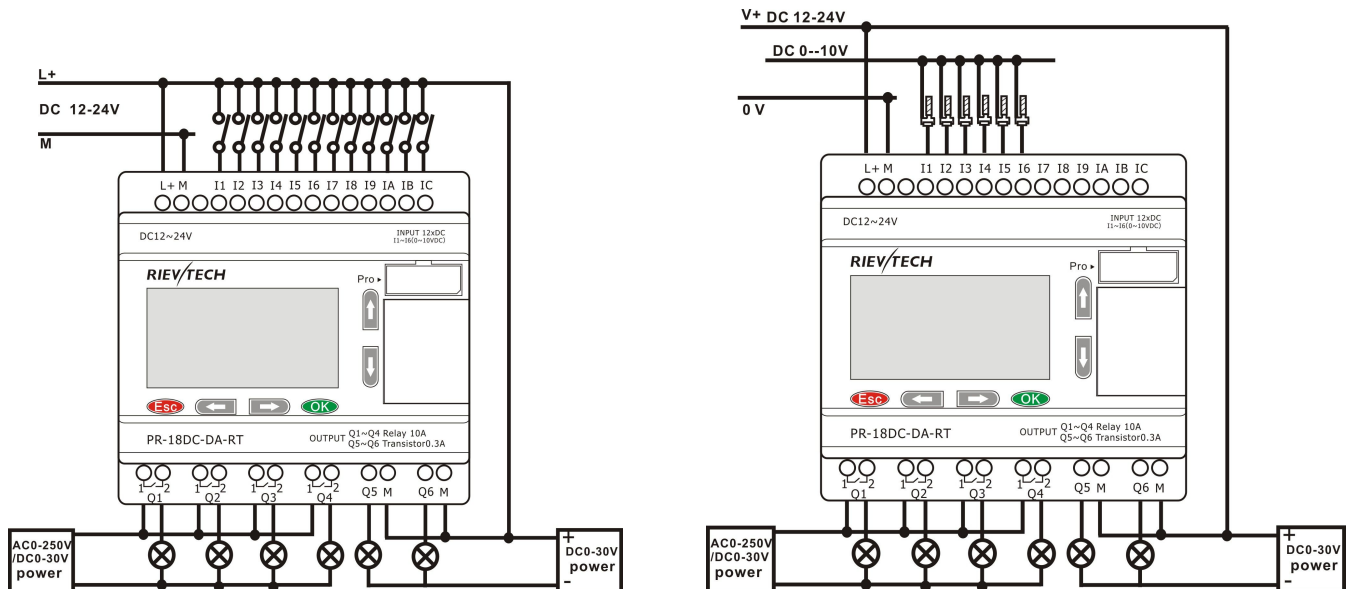
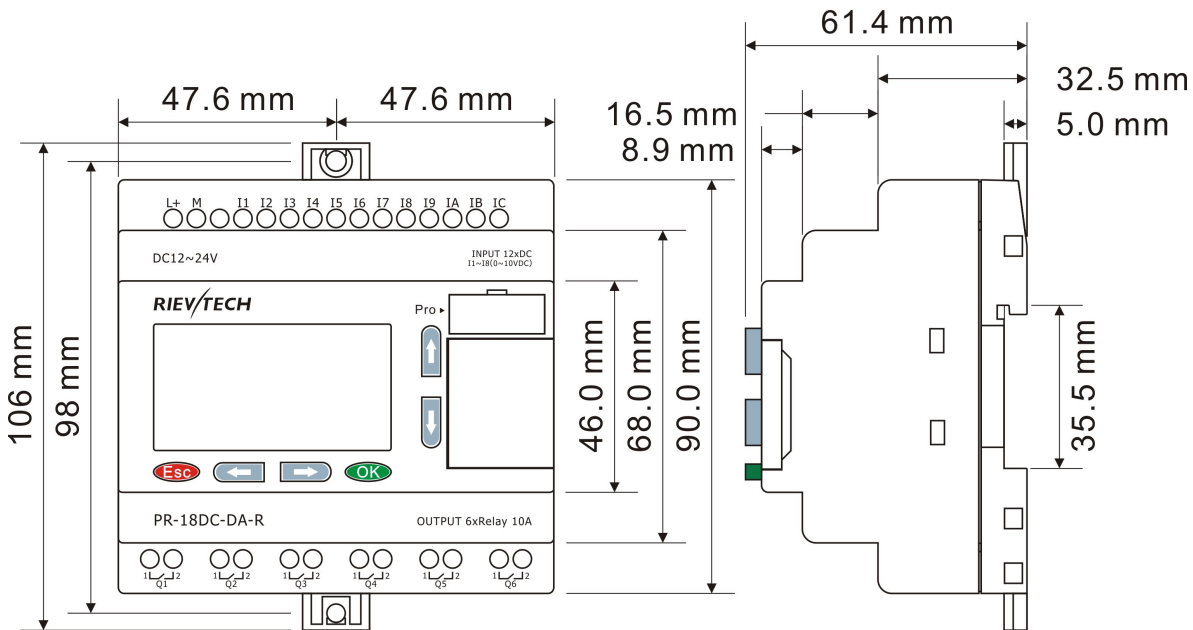
Technical Index

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	12 (I1-IC)
Digital input	12 (I1-IC)
Analogue input	6 (I1-I6)(0..10V DC)
Digital inputs(I7-IC)	
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.	6 (Q1-Q6)
Output type	4 (Q1-Q4)Relay output 2 (Q5-Q6)Transistor output
Continuous current	Relay:Resistive load 10A/Inductive load 2A Transistor:0.3A
Max. breaking voltage	Relay:AC 250 V DC 110 V Transistor: DC5...30V
Max. Allowable Power Force	1250VA 300W
Electrical durability Expectancy	10 ⁵ Operations at Rated Resistive Load(relay)
Mechanical life	10 ⁷ Operations at No Load condition(relay)
Response time	Operate Time : 15 mSec. Max. Release Time : 10 mSec. Max.
Built-in protections	Against short-circuits: None Against overvoltages and overloads: None
PWM frequency	10K HZ(Q5,Q6 must have same frequency when PWM works)

PWM accuracy at 500Hz	< 0.5% (20 % → 80 %) load at 10 mA
Switch frequency:	
Mechanism	10Hz
Resistor/light load	2Hz
Sensitive load	0.5Hz
Other parameters:	
Weight	Approx.400g

Installation Dimensions & Wiring Diagram



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						
Maximum Number	1024		a.On-delay; b.Off-delay etc. Up to 12 kind Timers			
Timing Ranges	10ms--99 h59m					
Counters						
Maximum Number	1024					
Highest Count	99999999				a.Up/down Counter b.Hours Counter c.Frequency Threshold Trigger	
Resolution	1					
RTC						
Number available	1024					
Resolution	1 min				a.Weekly Timer b.Yearly Timer	
Time span available	Week/year-month-day-hour-min					
Flags						
Digital flags	256					
Analog flags	256				a.Digital Flag b.Analog Flag	
PI Functions						
Number available	30				a.PI Controller	
Parameter Ranges	1-32767					
Analog Math						
Number available	1024					
Function	ADD, Subtract,Multiply, Divide				a.Analog Math b.Analog Math Error detection	
Analog Ramp Function						
Number available	55					
Compare Function					a. Analog Ramp	
Number available	1024					
					a.Analog compactor b.Comparison of 2 values	
Special Functions						
HMI Screens						
Number available	128		a.Message texts			
Display/Edit	Preset Current value and Free text					
PWM Functions						
Number available	1024, (2 fast output for Transistor)		a.PWM			
Communication Functions						
Number available	1024(Only CPU works as Master need these 2 blocks, slave does not need)		a.Modbus write 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.						