

◆ Technical Data:

Model:PR-12DC-DA-TN

GENERAL SPECIFICATIONS

Timers : 512
 Counters : 512
 Function Blocks: 512
 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
 Dimensions : 72*90*61 (Unit, mm)
 Certificate : CE
 Installation : 35mm-DIN rail or screw for installation
 Modify parameters via keypad LCD: yes
 Modbus RTU/ASCII:yes(Master or slave with RS232/RS485)
 Expansion: No

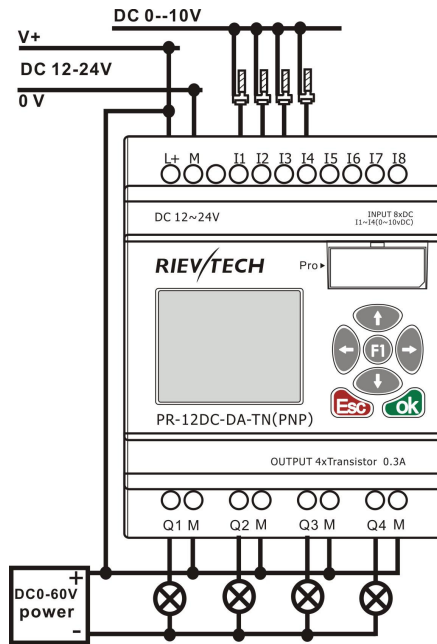
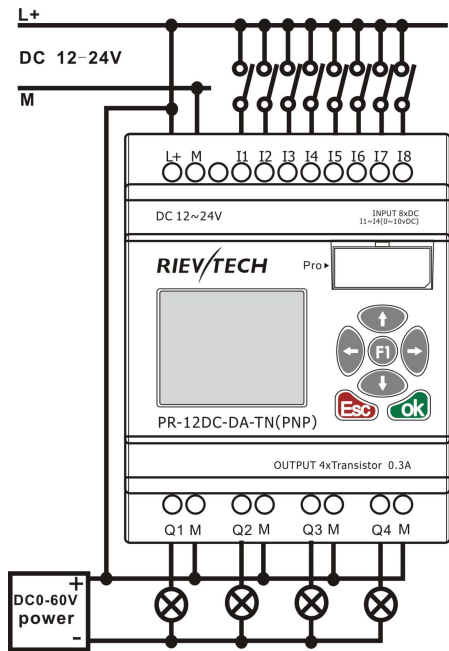
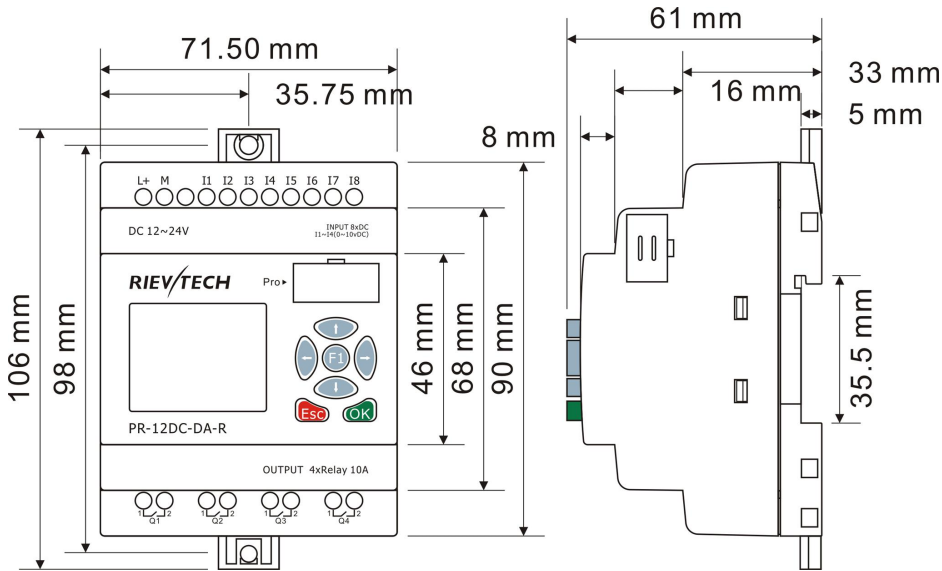


Technical Index

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. 0.1A
Max. absorbed power	2 W (10.8V dc) ; 2.3 W (28.8V dc)
Protection against polarity inversions	Yes
Input parameters:	
Input No	8 (I1-I4)
Digital input	8 (I1-I4)
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(I5--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, 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.	4 (Q1-Q4)
Output type	Transistor(PNP)
Breaking voltage	DC 5--30V
Nominal voltage	\leq Supply voltage
Nominal current	Max. 0.3 A per channel
Max. breaking current	0.65 A
Voltage drop	< 2 V for I = 0.3 A (at state 1)
Response time	Make \leq 1 ms Release \leq 1 ms
Frequency (Hz)	resistive load : 10 Hz inductive load : 0.5 Hz
Built-in protections	Against overloads and short-circuits: No Against overvoltages (*): No
Galvanic isolation	None
PWM frequency	10K HZ
PWM cyclic ratio	0 to 100 %
PWM accuracy at 120Hz	< 0.5 % (20 % \rightarrow 80 %) load at 10 mA
Max. Breaking current PWM	50 mA
Max. cable length PWM	20m
PWM accuracy at 500Hz	< 0.5% (20 % \rightarrow 80 %) load at 10 mA
Other parameters:	
Weight	Approx.300g

Installation Dimensions & Wiring Diagram



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									
Maximum Number	512	a.On-delay; b.Off-delay etc. Up to 12 kind Timers							
Timing Ranges	10ms--99 h59m								
Counters									
Maximum Number	512			a.Up/down Counter b.Hours Counter c.Frequency Threshold Trigger					
Highest Count	99999999								
Resolution	1								
RTC									
Number available	512	a.Weekly Timer b.Yearly Timer							
Resolution	1 min								
Time span available	Week/year-month-day-hour-min								
Flags									
Digital flags	256	a.Digital Flag b.Analog Flag							
Analog flags	256								
PI Functions									
Number available	30	a.PI Controller							
Parameter Ranges	1-32767								
Analog Math									
Number available	512	a.Analog Math b.Analog Math Error detection							
Function	ADD, Subtract,Multiply, Divide								
Analog Ramp Function									
Number available	55	a. Analog Ramp							
Compare Function									
Number available	512					a.Analog compactor b.Comparison of 2 values			
Special Functions									
HMI Screens									
Number available	64	a.Message texts							
Display/Edit	Preset Current value and Free text								
PWM Functions									
Number available	512, (2 fast output for Transistor)	a.PWM							
Communication Functions									
Number available	512(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.									