

◆ 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

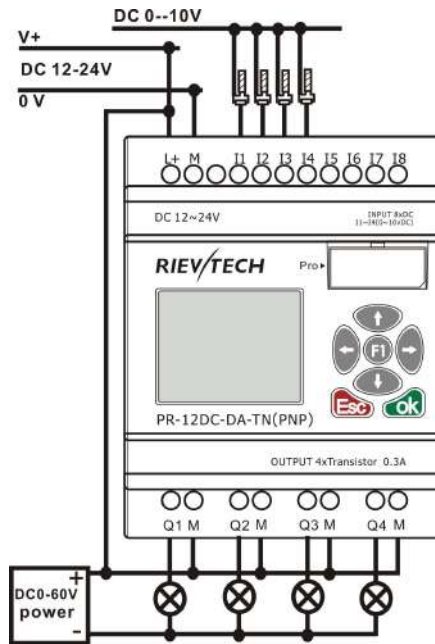
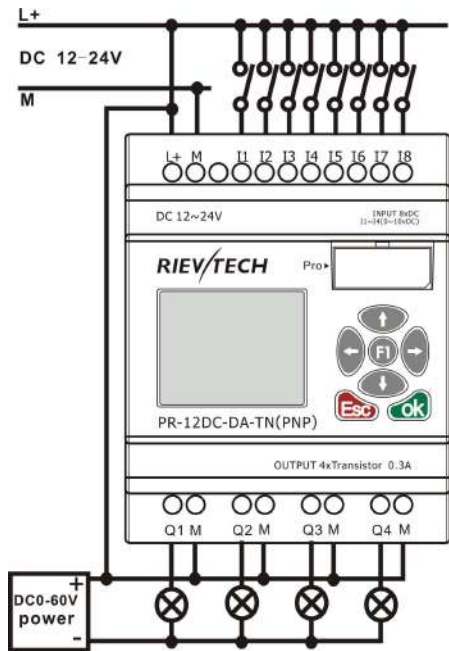
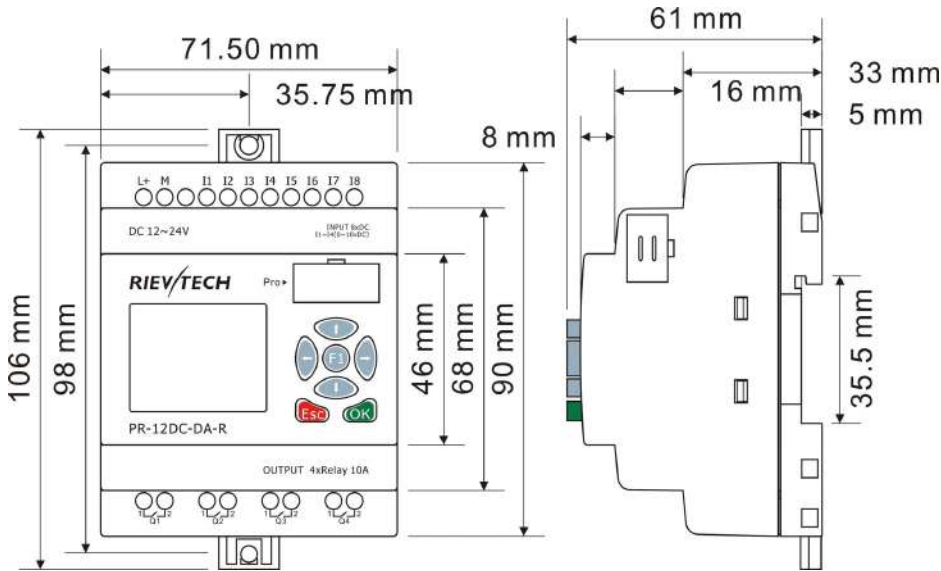


Technical Index

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					
SYSTEM		Operating System requirements		Windows /2000/XP/WIN7/WIN8	
SYSTEM		Programming languages		Function block	
SYSTEM		Program Memory		512	
SYSTEM		Execution Speed		<0.1ms per function	
SYSTEM		LCD Display		4 lines x 16 characters	
SYSTEM		Functions		Up to 70 function blocks	
BASIC		Timers		<ul style="list-style-type: none"> a.On-delay; b.Off-delay etc. Up to 12 kind Timers	
BASIC		Maximum Number	512		
BASIC		Timing Ranges	10ms--99 h59m		
BASIC		Counters		<ul style="list-style-type: none"> a.Up/down Counter b.Hours Counter c.Frequency Threshold Trigger 	
BASIC		Maximum Number	512		
BASIC		Highest Count	99999999		
BASIC		Resolution		1	
BASIC		RTC		<ul style="list-style-type: none"> a.Weekly Timer b.Yearly Timer 	
BASIC		Number available	512		
BASIC		Resolution	1 min		
BASIC		Time span available		Week/year-month-day-hour-min	
BASIC		Flags		<ul style="list-style-type: none"> a.Digital Flag b.Analog Flag 	
BASIC		Digital flags	256		
BASIC		Analog flags		256	
BASIC		PI Functions		a.PI Controller	
BASIC		Number available	30		
BASIC		Parameter Ranges		1-32767	
BASIC		Analog Math		<ul style="list-style-type: none"> a.Analog Math b.Analog Math Error detection 	
BASIC		Number available	512		
BASIC		Function		ADD, Subtract,Multiply, Divide	
BASIC		Analog Ramp Function		a. Analog Ramp	
BASIC		Number available	55		
BASIC		Compare Function		<ul style="list-style-type: none"> a.Analog compactor b.Comparison of 2 values 	
BASIC		Number available	512		
Special Functions		HMI Screens		a.Message texts	
Special Functions		Number available	64		
Special Functions		Display/Edit		Preset Current value and Free text	
Special Functions		PWM Functions		a.PWM	
Special Functions		Number available	512, (2 fast output for Transistor)		
Special Functions		Communication Functions		<ul style="list-style-type: none"> a.Modbus write b.Modbus read 	
Special Functions		Number available	512(Only CPU works as Master need these 2 blocks, slave does not need)		
Special Functions		Word/bit data Conversion	Square Boot	Sin/Cos	RS latch relay
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.					