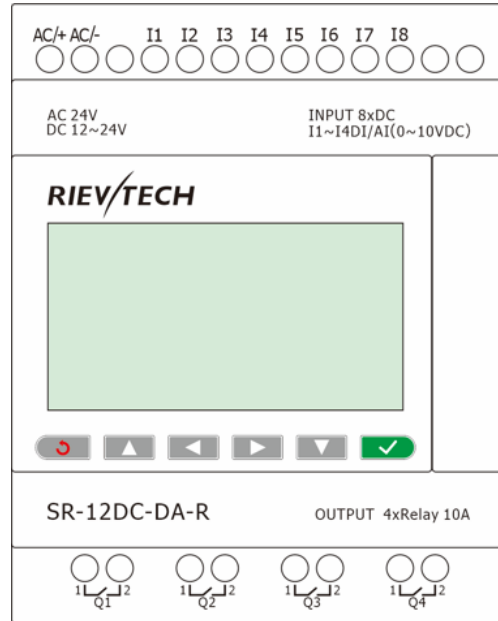


◆ **Technical Data:**

Model:SR-12DC-DA-R

GENERAL SPECIFICATIONS

- Timers : 256
- Counters: 256
- Function Blocks: 256
- 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
- Supported programming language: FBD
- Expansion capacity: 3 modules (SR-E)
- Password protection: 4-digit number password protection or disable program upload function
- Communication interface: 1 RS485 port(COM1 external -- SR-RS485), 1Ethernet port(10M)
- Communication protocol: Modbus RTU, Modbus TCP



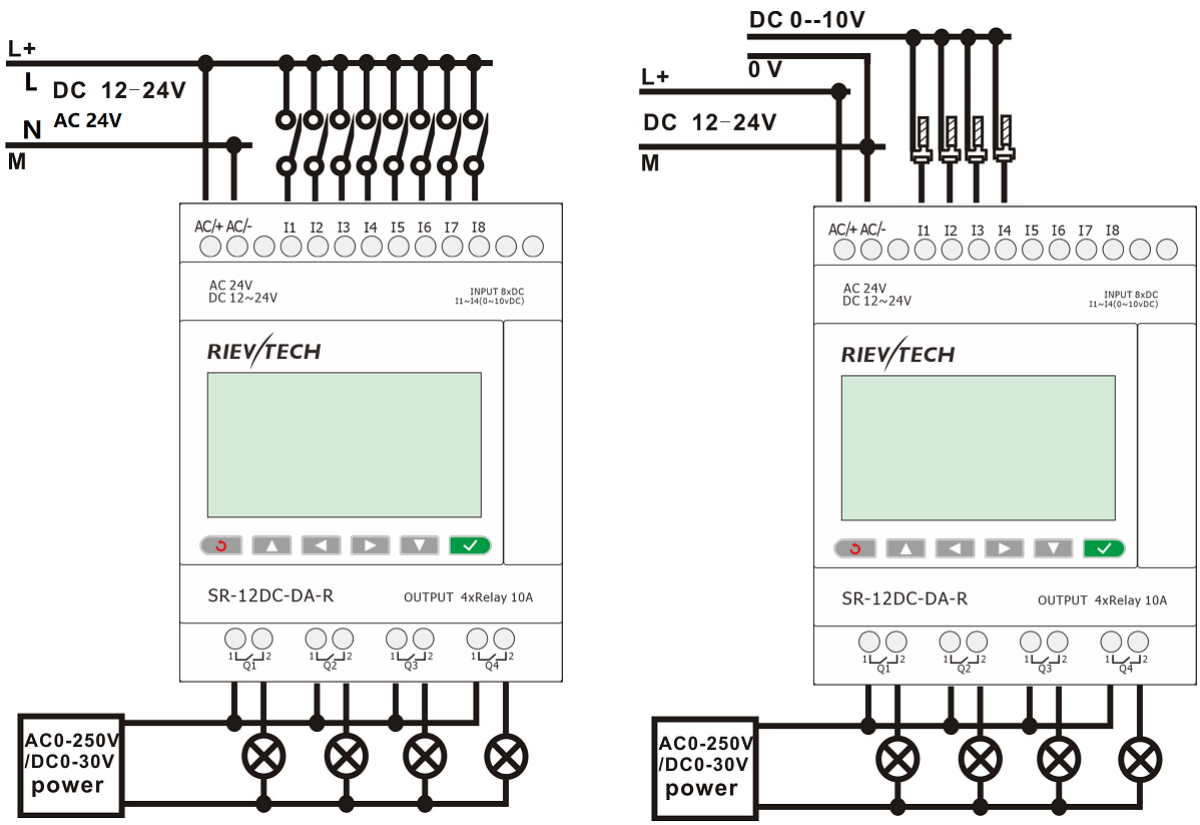
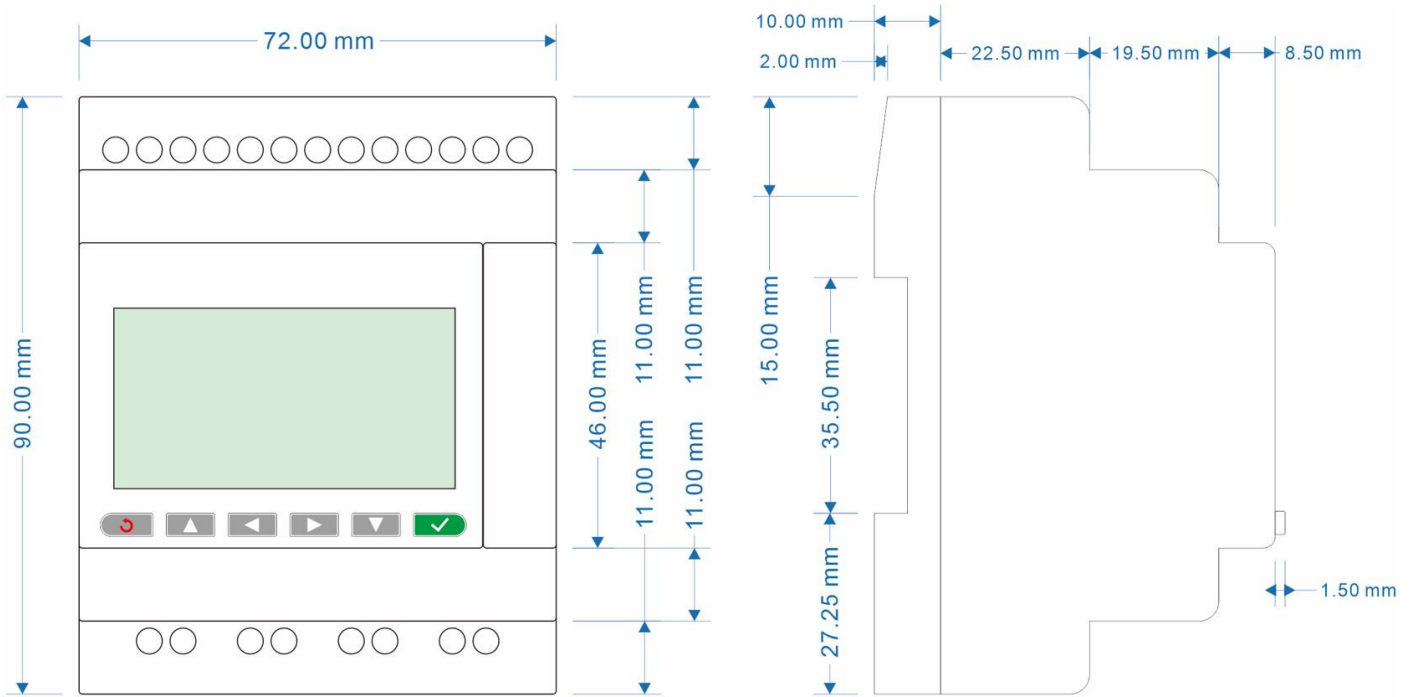
Technical Index

Power supply:	
Nominal voltage	DC12-24V /AC24V
Operating limits	DC 10.8-28.8V AC24V
Immunity from micro power cuts	Typ.5 ms
Max. Startup current	Max. 0.4A
Max. absorbed power	3W (10.8V dc); 3.5W (28.8V dc); 0.35A (24V ac)
Protection against polarity inversions	Yes
Input parameters:	
Input No	8 (I1-I8)
Digital input	8 (I1-I8)
Analogue input	4 (I1-I4) (0...10V DC)
Digital inputs (I5-I8)	
Input voltage	DC 0-28.8V AC 0-24V
Input signal0	< 5V DC; <1mA < 3V AC
Input signal1	> 8 V DC;>1.7 mA > 7V AC

Input current	2.05mA @ 10.8V dc 2.28mA @ 12.0 V dc 4.55 mA @ 24 V dc 5.46 mA @ 28.8 V dc 4.67 mA @ 24 V ac
Response time	DC12-24V: 0 to 1 : <1 ms; 1 to 0 : <1 ms AC24V: 0 to 1 : 50ms; 1 to 0 : 50ms
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	DC 0-28.8V AC 0-24V
Input signal0	< 5V DC;<0.09 mA < 3V AC
Input signal1	> 8 V DC;>0.15mA > 7V AC
Input current	0.16mA @ 10.8V dc 0.18mA @ 12.0 V dc 0.49mA @ 24 V dc 0.62mA @ 28.8 V dc 0.58 mA @ 24 V ac
Response time	DC12-24V: 0 to 1 : <1 ms; 1 to 0 : <1 ms AC24V: 0 to 1 : 50ms; 1 to 0 : 50ms
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.0.1)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	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 over-voltages and overloads: None
Switch frequency:	
Mechanism	10Hz
Resistor/light load	2Hz
Sensitive load	0.5Hz
Other parameters:	
Weight	206.5g / 242.9g(packaging)

Installation Dimensions & Wiring Diagram



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