

◆ **Technical Data:**

**Model: PR-26DC-DAI-RT-N**

**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: 133\*90\*60 (Unit: mm)

Certificate: CE

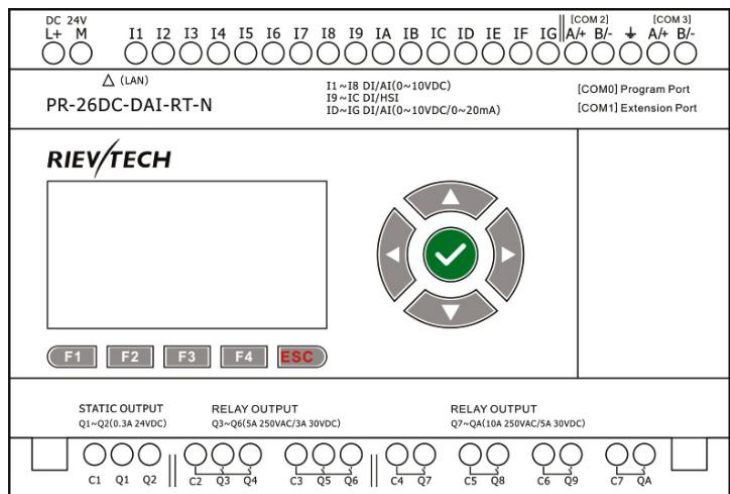
Installation: 35-DIN rail or screw for installation

Expansion capacity: 16 modules (PR-E-16)

Password protection: 4-digit number password protection or disable program upload function

Communication interface: 1 RS232 Port (COM0) & 1 RS485 port (COM1 external) available via optional accessory, 2 built-in RS485 (COM2, COM3), 1Ethernet port.

Communication protocol: Modbus RTU/ASCII, Modbus TCP



**Technical Index**

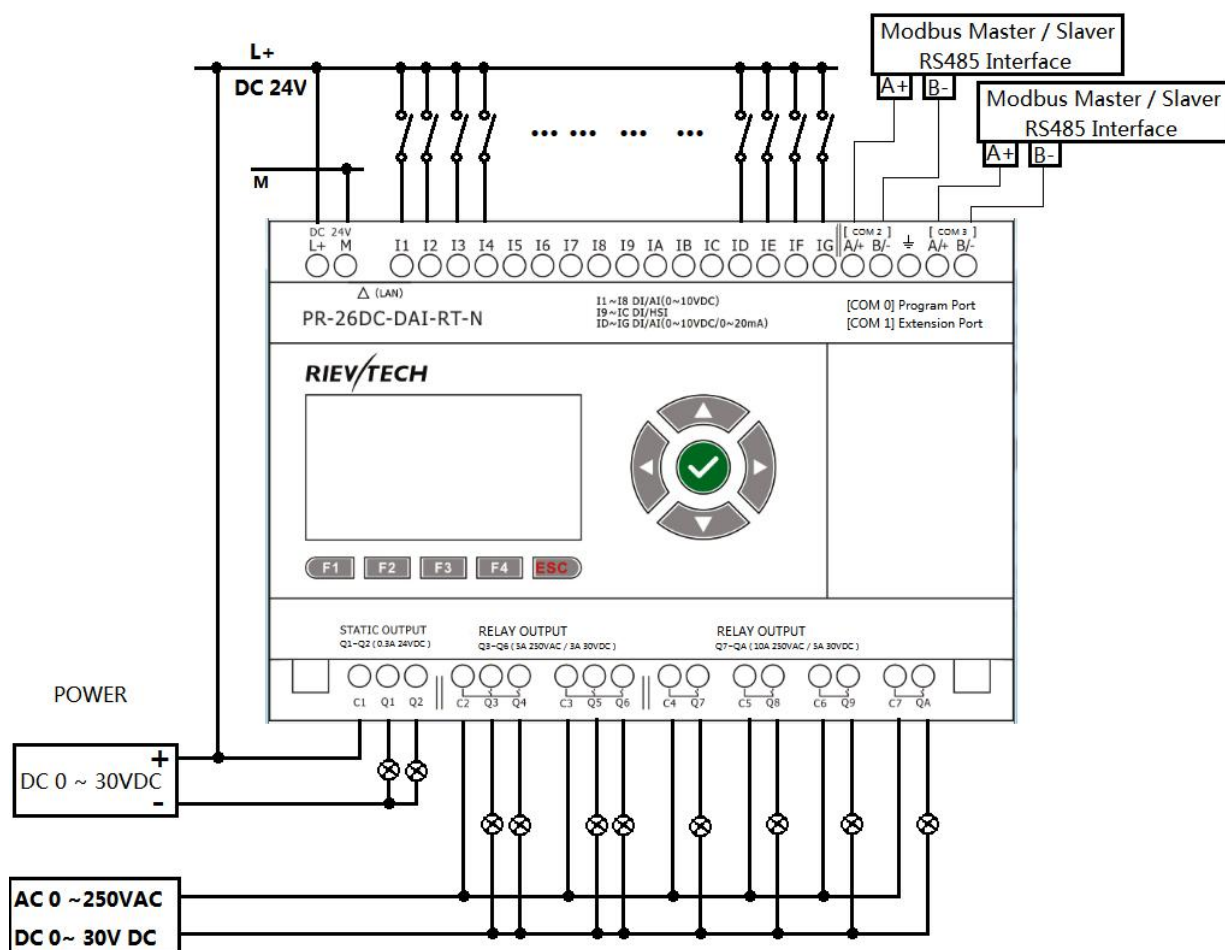
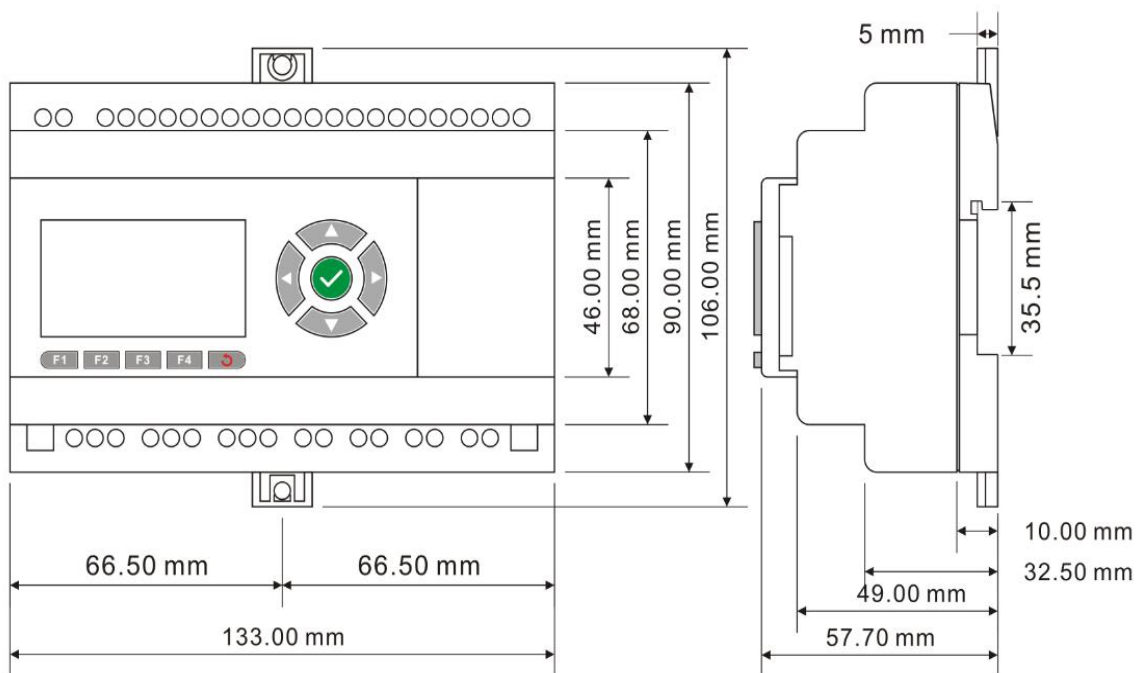
<b>Power supply:</b>	
Nominal voltage	DC 24V
Operating limits	DC 20.4-28.8V
Immunity from micro power cuts	Typ.5 ms
Max. Startup current	Max. 0.3A
Max. absorbed power	10W
Protection against polarity inversions	Yes
<b>Input parameters:</b>	
Input No	16 ( I1-IG)
Digital input	16 ( I1-IG)
Analogue input	8 ( I1-I8)(0..10V DC) +4(ID-IG)(0...20mA OR 0..10V DC)
<b>Digital input and analog inputs (0...10V)10bits( I1-I8 )</b>	
<b>Inputs used as digital inputs( I1-I8 )</b>	
Input voltage	DC0-28.8V
Input signal0	< 5V DC;<0.08mA
Input signal1	> 8 V DC;>0.12mA
Input current	0.16mA @ 10.8V dc 0.18mA @ 12.0 V dc 0.34mA @ 24 V dc 0.41mA @ 28.8 V dc
Response time	0 to 1 : Typ. 10.5 ms ; 1 to 0 : Typ. 1.5 ms

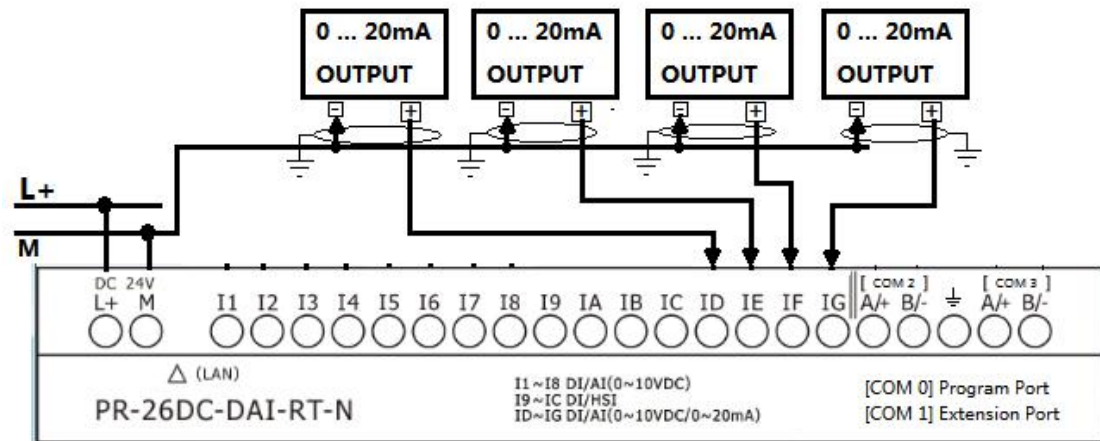
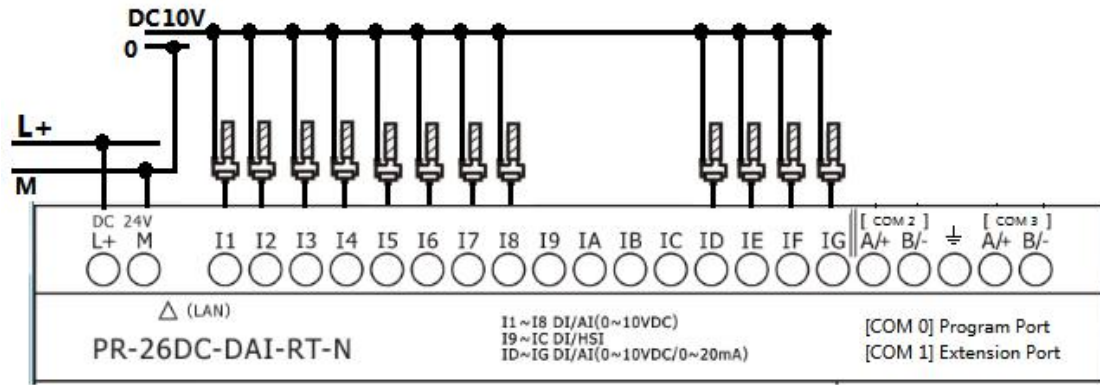
Maximum counting frequency	Typ.: 4 HZ
Sensor type	Contact or 3-wire PNP
Input type	Resistive
Isolation between power supply and inputs	None
Isolation between inputs	None
<b>Inputs used as analog inputs(0..10V)( I1-I8 )</b>	
Measurement range	DC 0---10V
Input impedance	Min, 24K $\Omega$ ; Max. 72K $\Omega$
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
<b>Digital and high speed inputs(I9--IC)</b>	
<b>Digital inputs( I9-IC )</b>	
Input voltage	DC0-28.8V
Input signal0	< 5V DC; <1mA
Input signal1	> 8 V DC;>1.6mA
Input current	2.1mA @ 10.8V dc 2.3mA @ 12.0 V dc 4.6 mA @ 24 V dc 5.5 mA @ 28.8 V dc
Response time	0 to 1 : <1 ms ; 1 to 0 : <1 ms
<b>High speed inputs( I9-IC )</b>	
Maximum counting frequency	60kHz(I9--IC)
<b>Digital and analog(0--10V)&amp;analog(0...20mA)(ID-IG)</b>	
<b>Inputs used as digital inputs( ID-IG )</b>	
Input voltage	DC0-28.8V
Input signal0	< 5V DC;<0.08mA
Input signal1	> 8 V DC;>0.12mA
Input current	0.16mA @ 10.8V dc 0.18mA @ 12.0 V dc 0.34mA @ 24 V dc 0.41mA @ 28.8 V dc
Response time	0 to 1 : Typ. 10.5 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
<b>Inputs used as analog inputs(0..10V)( ID-IG )</b>	
Measurement range	DC 0---10V
Input impedance	Min, 24K $\Omega$ ; Max. 72K $\Omega$
Input voltage	28.8 V DC max

Resolution	10bit ,0.01V
Accuracy at 25 °C	± (Max.0.02)V
Accuracy at 55 °C	± (Max.0.04)V
Isolation between analog channel and power supply	None
Cable length	10 m max. shielded and twisted
Input signal0	< 5V DC;<0.08mA
Input signal1	> 8 V DC;>0.12mA
Input current	0.16mA @ 10.8V dc 0.18mA @ 12.0 V dc 0.34mA @ 24 V dc 0.41mA @ 28.8 V dc
Response time	0 to 1 : Typ. 10.5 ms ; 1 to 0 : Typ. 1.5 ms
Sensor type	Contact or 3-wire PNP
Input type	Resistive
Isolation between power supply and inputs	None
Isolation between inputs	None
<b>Inputs used as analog inputs(0..20mA)( ID-IG )</b>	
Analogue signal	0/4....20mA current
Input impedance	260Ω
Resolution	0.02mA
Accuracy at 25 °C	0.05mA
Cycle time for analog value generation	Typ. 50 ms
Protection against polarity inversions	yes
Overvoltage protection	Yes, if the input voltage is >6.5V, this one is automatically switched on 0--10V configuration
Isolation between power supply and inputs	No
Cable length	<=30M with shielded twisted cable(sensor not isolated)
<b>Output</b>	
<b>Digital/Transistor output(PNP) - Q1,Q2</b>	
Breaking voltage	DC 5--30V
Nominal voltage	≤ 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 ≤ 1 ms Release ≤ 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 % → 80 %) load at 10 mA
Max. Breaking current PWM	50 mA
Max. cable length PWM	20m

<b>5A Relay 4 outputs from Q3 to Q6</b>	
Max. breaking voltage	CE:AC 250 V/DC 30 V 5A UL:AC 250 V/DC 30 V 3A
Electrical durability Expectancy	10 <sup>5</sup> Operations at Rated Resistive Load
Mechanical life	10 <sup>7</sup> 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
<b>10A Relay 4 outputs from Q7 to QA</b>	
Max. breaking voltage	CE:AC 250 V/DC 30 V 10A UL:AC 250 V/DC 28 V 5A
Max. Allowable Power Force	1250VA
Electrical durability Expectancy	10 <sup>5</sup> Operations at Rated Resistive Load
Mechanical life	10 <sup>7</sup> 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
<b>Communication ports parameters:</b>	
COM0_TTL port	Can be used as program port with PR-RS232&PR-USB; Also can be convert to RS232 port with PR-RS232 Can be convert to RS485 port with PRO-RS485 Note:Need move away the expand cover to use it Can be used as modbus master or slave
Built-in RS485 COM2	1 built-in RS485 port (Terminal A+,B-) Can be used as modbus master or slave
Built-in RS485 COM3	1 built-in RS485 port (Terminal A+,B-) Can be used as modbus master or slave
Ext RS485 COM1	Need use with PR-E-RS485 module Can be used as modbus master or slave
Ethernet port:	Built-In(10M/100M), 1.Can be used as program or communication 2.Can be used as modbus master or slave
Monitoring webserver page	Yes
Xlogic<--->Xlogic(by Ethernet)	1 xlogic works as tcp server can connect with 8 tcp client xlogics or other tcp devices.
Xlogic<--->Ethernet/Internet:	1 xlogic works as TCP clients can connect with 8 different tcp servers separately in maximum
<b>Other parameter</b>	
Weight	Approx.400g

# Dimension and wiring





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				
Timing Ranges	10ms--99 h59m				
Counters					
Maximum Number	1024				
Highest Count	99999999				
Resolution	1				
RTC					
Number available	1024				
Resolution	1 min				
Time span available	Week/year-month-day-hour-min				
Flags					
Digital flags	256				
Analog flags	256				
PI Functions					
Number available	30				
Parameter Ranges	1-32767				
Analog Math					
Number available	1024				
Function	ADD, Subtract,Multiply, Divide				
Analog Ramp Function					
Number available	55				
Compare Function					
Number available	1024				
HMI Screens					
Number available	128				
Display/Edit	Preset Current value and Free text				
PWM Functions					
Number available	1024, (2 fast output for Transistor)				
Communication Functions					
Number available	1024(Only CPU works as Master need these 2 blocks, slave does not need)				
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		
<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>					