

◆ **Technical Data:**

**Model: PR-26DC-DAI-RT-2G**

**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

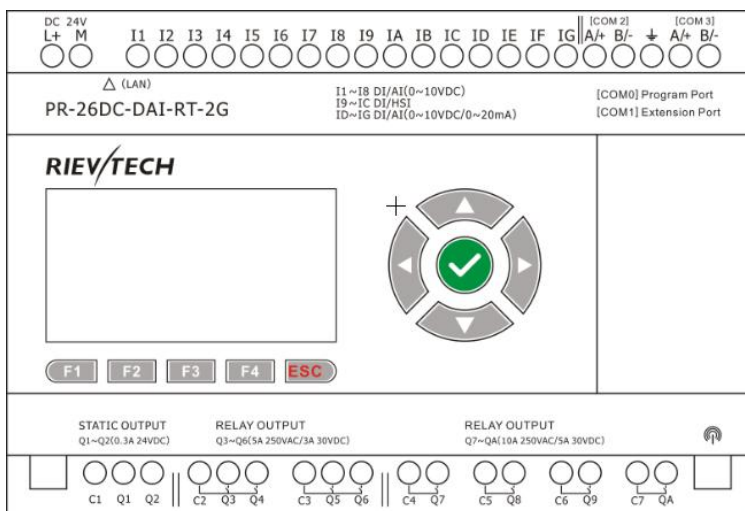
Installation: 35-DIN rail or screw for installation

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), 1 Ethernet port.

Communication protocol: Modbus RTU/ASCII, Modbus TCP



**Technical Index**

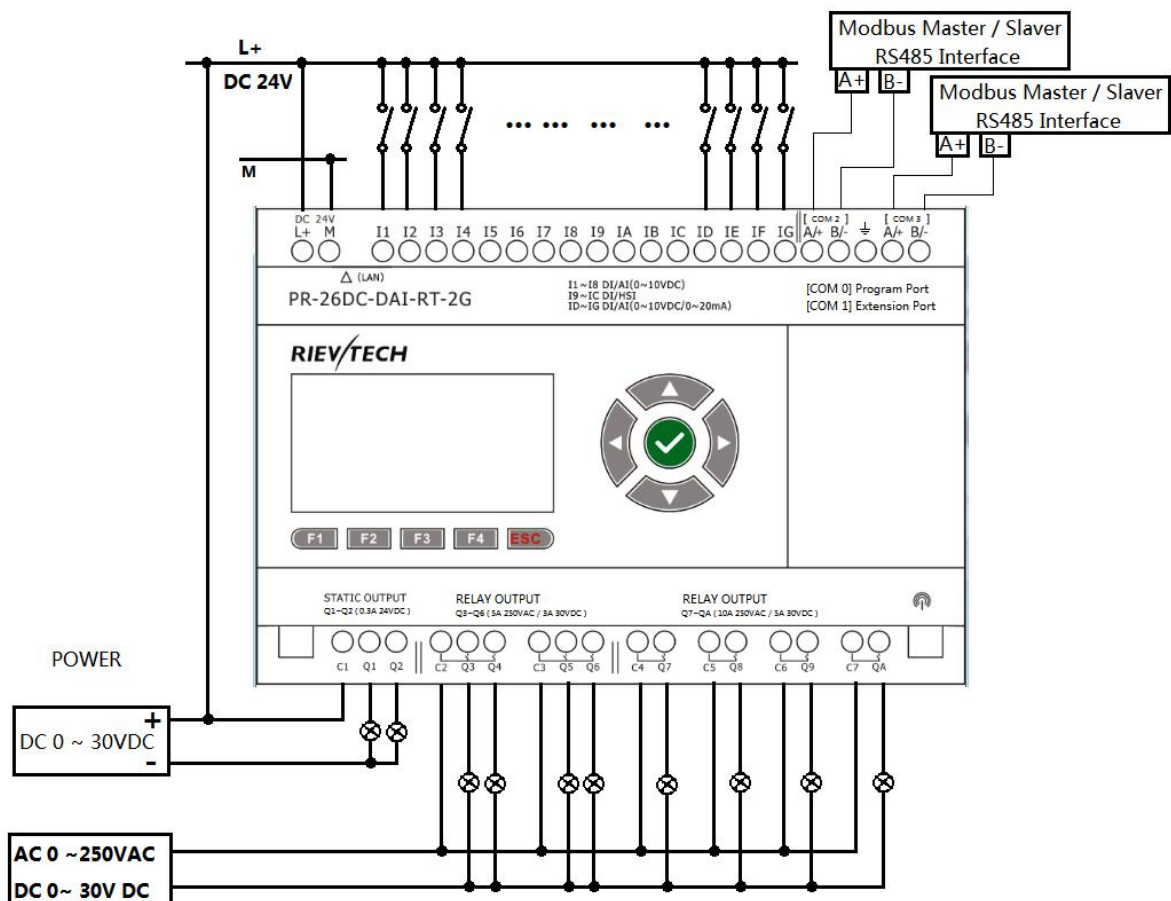
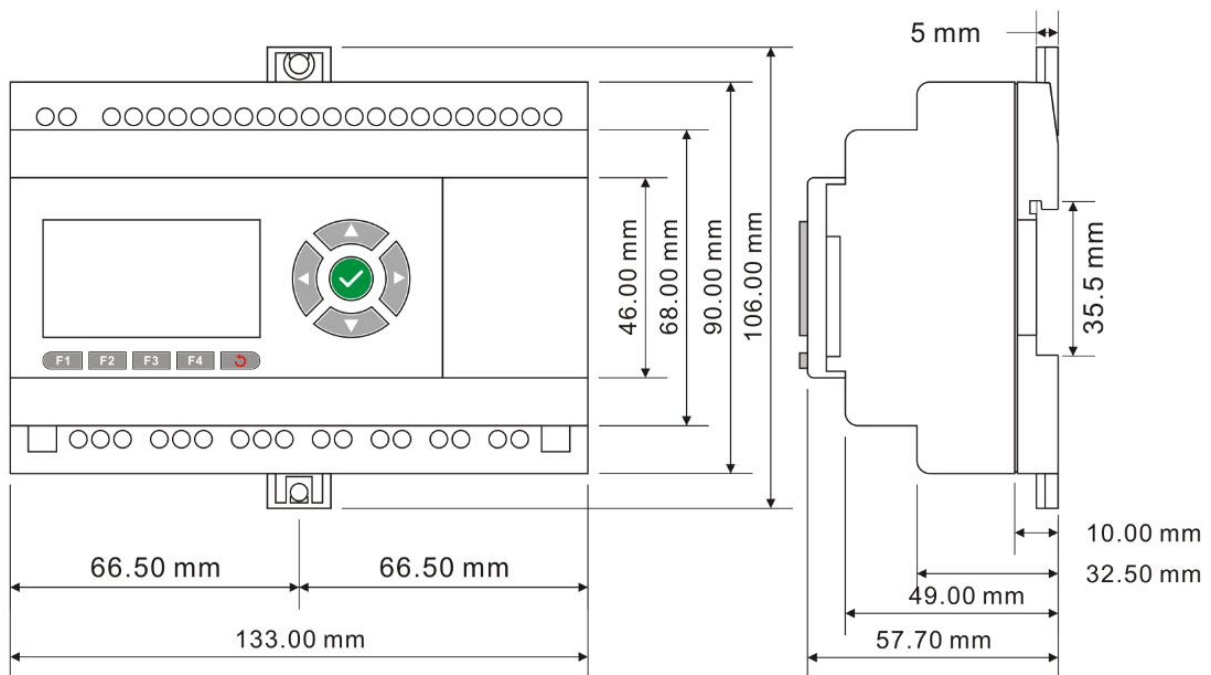
<b>Power supply:</b>	
Nominal voltage	DC 24V
Operating limits	DC 20.4-28.8V
Immunity from micro power cuts	Typ.5 ms
Max. Startup current	Max. 0.3A
Max. absorbed power	10W
Protection against polarity inversions	Yes
<b>Input parameters:</b>	
Input No	16 ( I1-IG)
Digital input	16 ( I1-IG)
Analogue input	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

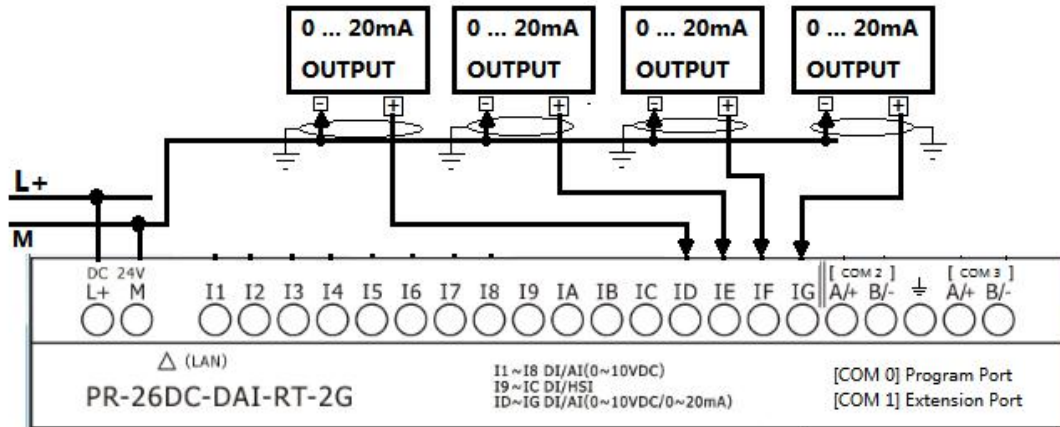
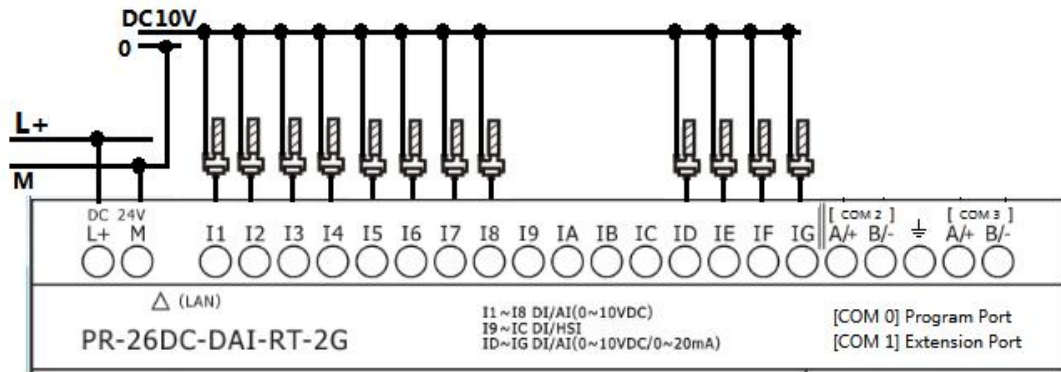
Maximum counting frequency	Typ.: 4 HZ
Sensor type	Contact or 3-wire PNP
Input type	Resistive
Isolation between power supply and inputs	None
Isolation between inputs	None
<b>Inputs used as analog inputs(0..10V)( I1-I8 )</b>	
Measurement range	DC 0---10V
Input impedance	Min, 24K $\Omega$ ; Max. 72K $\Omega$
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>GSM parameter</b>	
Type of mobile wireless service	SMS, GPRS
Operating frequency	850MHz,900MHz,1800MHz,1900MHz,
for GPRS transmission / with downlink / maximum	80 kbit/s
for GPRS transmission / with uplink / maximum	40 kbit/s
<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						a.On-delay; b.Off-delay etc. Up to 12 kind Timers	
	Maximum Number	1024						
	Timing Ranges	10ms--99 h59m						
	Counters						a.Up/down Counter b.Hours Counter c.Frequency Threshold Trigger	
	Maximum Number	1024						
	Highest Count	99999999						
	Resolution	1						
	RTC						a.Weekly Timer b.Yearly Timer	
	Number available	1024						
	Resolution	1 min						
	Time span available	Week/year-month-day-hour-min						
	Flags						a.Digital Flag b.Analog Flag	
	Digital flags	256						
	Analog flags	256						
	PI Functions						a.PI Controller	
	Number available	30						
	Parameter Ranges	1-32767						
	Analog Math						a.Analog Math b.Analog Math Error detection	
Number available	1024							
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	1024							
Special Functions	HMI Screens						a.Message texts	
	Number available	128						
	Display/Edit	Preset Current value and Free text						
	PWM Functions						a.PWM	
	Number available	1024, (2 fast output for Transistor)						
	Communication Functions						a.Modbus write b.Modbus read	
	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					

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.