

◆ **Technical Data:**
Model: PR-26DC-DAI-RA-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

Supported programming language: FBD & Ladder

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 – RS232 Cable), 3 RS485 port (COM1 available via SR-RS485, COM2&COM3 - 2 built-in RS485 port), 1Ethernet port.

Communication protocol: Modbus RTU/ASCII, Modbus TCP, MQTT, BACnet



Technical Index

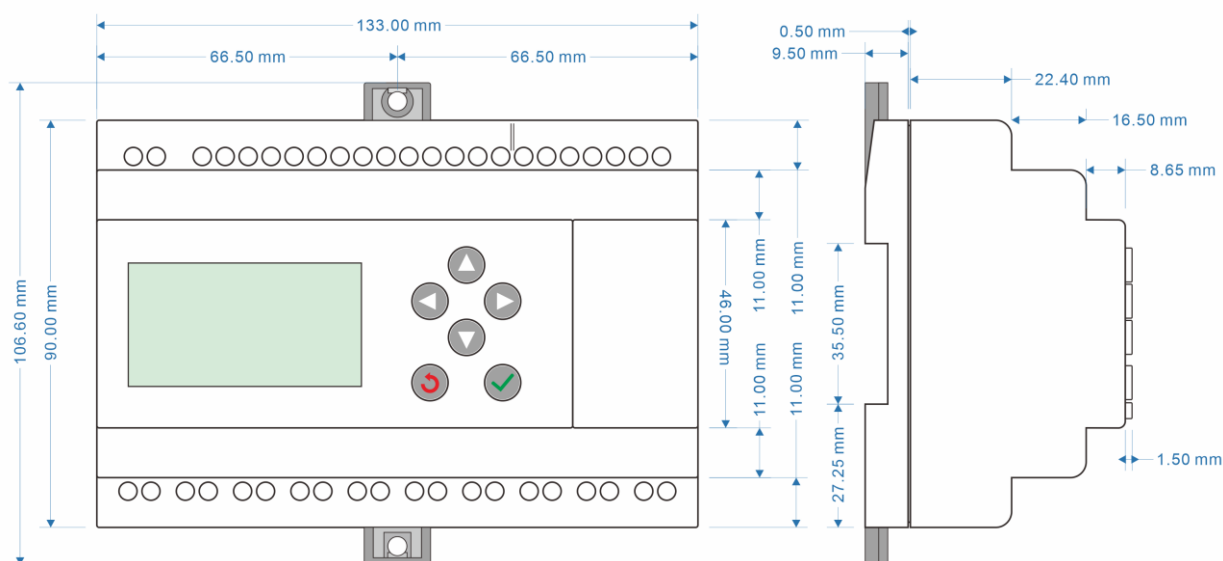
Power supply:	
Nominal voltage	DC 24V
Operating limits	DC 20.4-28.8V
Immunity from micro power cuts	Typ.5 ms
Max. Startup current	Max. 0.5A
Max. absorbed power	10W
Protection against polarity inversions	Yes
Input parameters:	
Input No	16 (I1-IG)
Digital input	16 (I1-IG)
Analogue input	8 (I1-I8) (0..10V DC) +4(ID-IG)(0...20mA OR 0..10V DC, Switch on the programming software)
Digital input and analog inputs (0...10V)10bits (I1-I8)	
Inputs used as digital inputs (I1-I8)	
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
Inputs used as analog inputs (0..10V)(I1-I8)	
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
Digital and high-speed inputs(I9--IC)	
Digital inputs (I9-IC)	
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
High speed inputs (I9-IC)	
Maximum counting frequency	60kHz(I9--IC)
Digital and Analog(0--10V) & Analog (0...20mA) (ID-IG)	
Inputs used as digital inputs (ID-IG)	
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
Inputs used as analog inputs (0..10V)(ID-IG)	
Measurement range	DC 0---10V

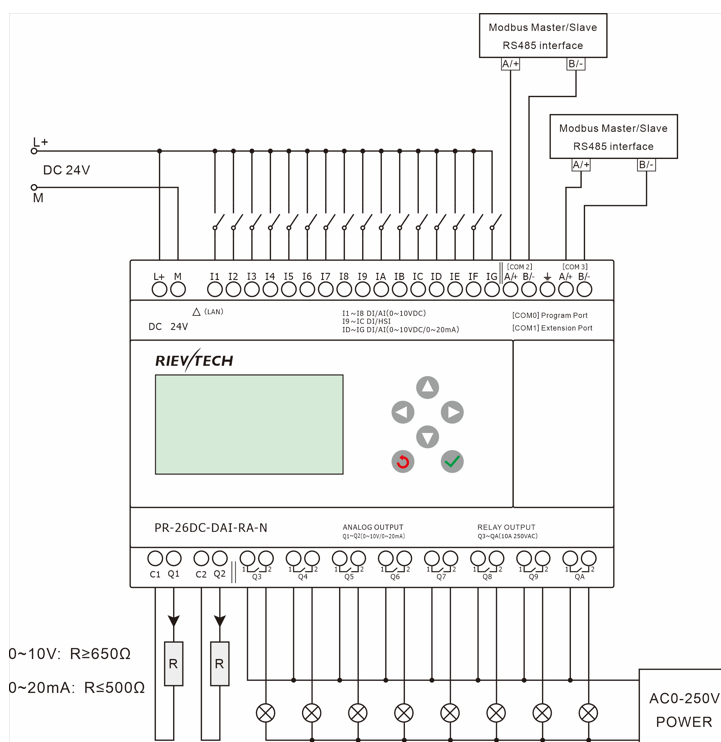
Input impedance	Min, 24K Ω ; Max. 72K Ω
Input voltage	28.8 V DC max
Resolution	10bit ,0.01V
Accuracy at 25 °C	$\pm$ (Max.0.02)V
Accuracy at 55 °C	$\pm$ (Max.0.04)V
Isolation between analog channel and power supply	None
Cable length	10 m max. shielded and twisted
Inputs used as analog inputs (0..20mA)(ID-IG)	
Analogue signal	0/4....20mA current
Input impedance	260 Ω
Resolution	0.02mA
Accuracy at 25 °C	0.1mA
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)
Output (2 Analog outputs + 8 Relay outputs)	
2 Analog outputs from AQ1 to AQ2 (0...10V / 0...20mA)	
Output No.	2
Output signal	0...10V or 0...20mA (Switch on the programming software)
Internal value and signal relationship	(0..1000)= (0...10V) = (0...20mA)
Resolution	0.01V / 0.02mA
Accuracy at 25 °C	0.02V / 0.05mA
10A Relay 8 outputs from Q3 to QA	
Safety certified load (resistive)	10A 250V AC
Min switching load	6V 1A
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 overvoltages and overloads: None
Communication ports parameters:	
COM0_TTL port	Can be used as program port with RS232 Cable & USB Cable; Also can be convert to RS232 port with RS232 Cable. 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 SR-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
Other parameter	
Weight	Approx.400g

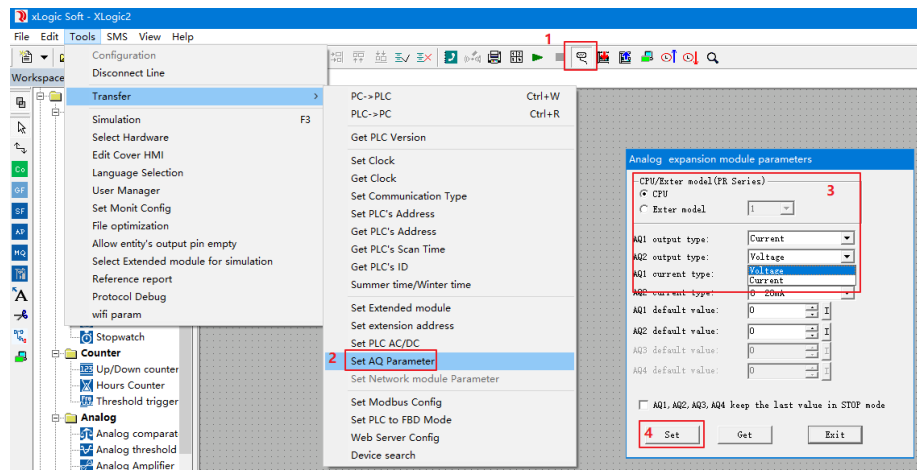
Dimension and wiring



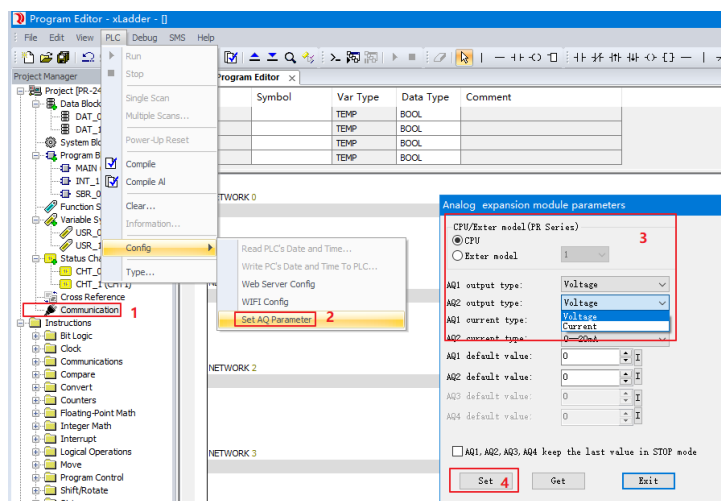
Digital Input / Output



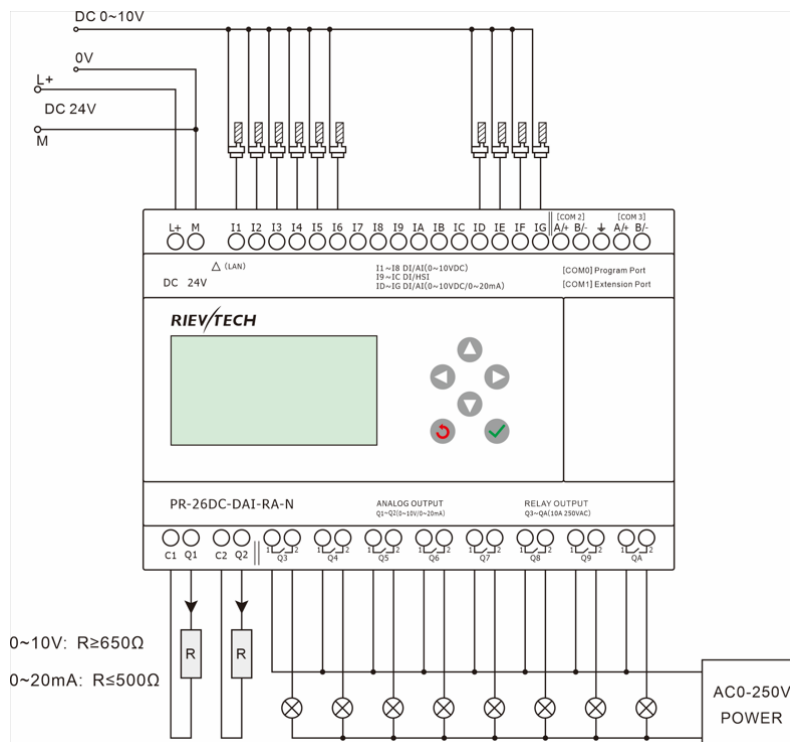
Set the output signal (voltage/current) of AQ1 and AQ2 on the programming software, as shown below:
xLogic:



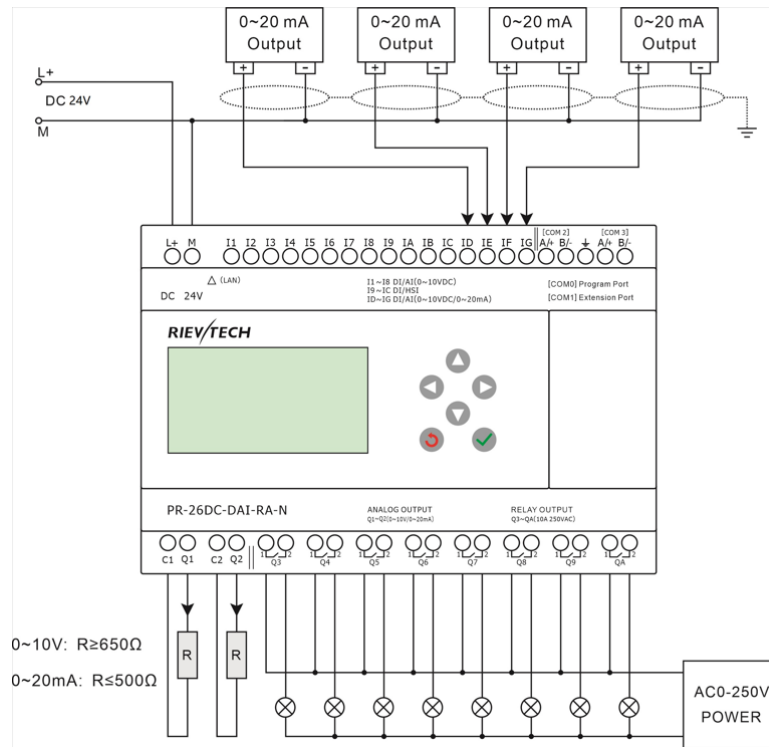
xLadder:



0~10V analog input

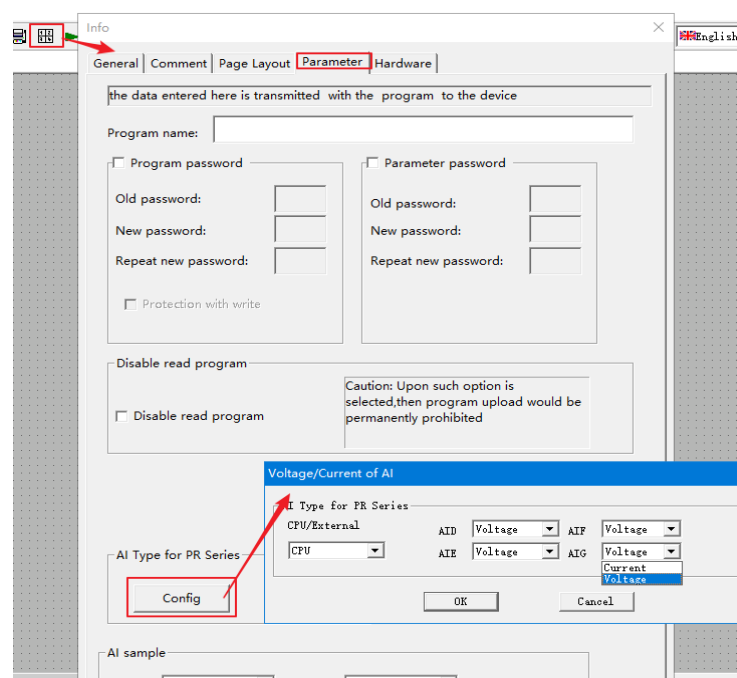


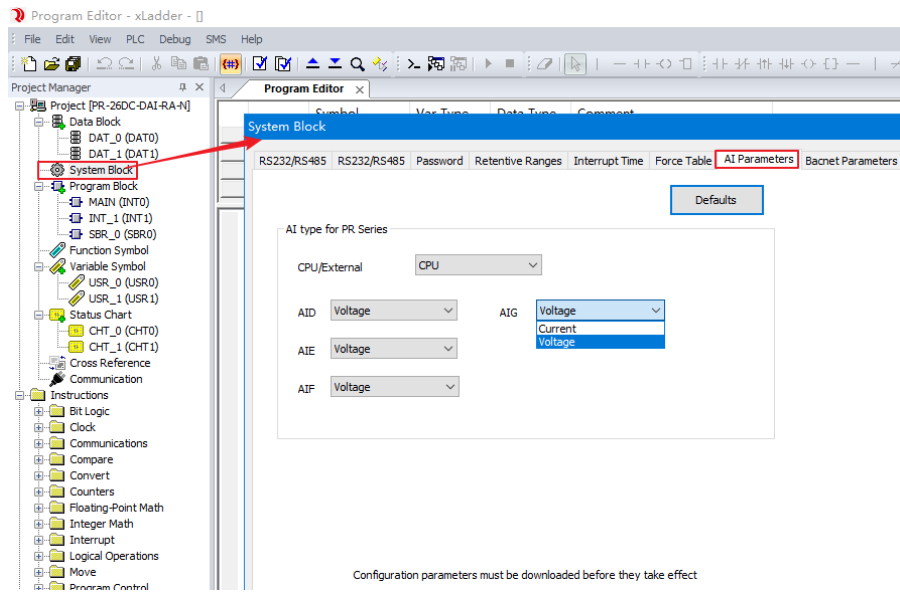
0/4~20mA analog input

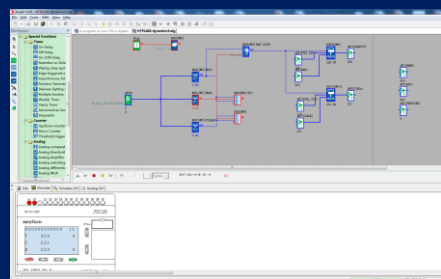


Switch the analog input signal of ID~IG on the programming software, as shown below:

xLogic





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.							

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.

