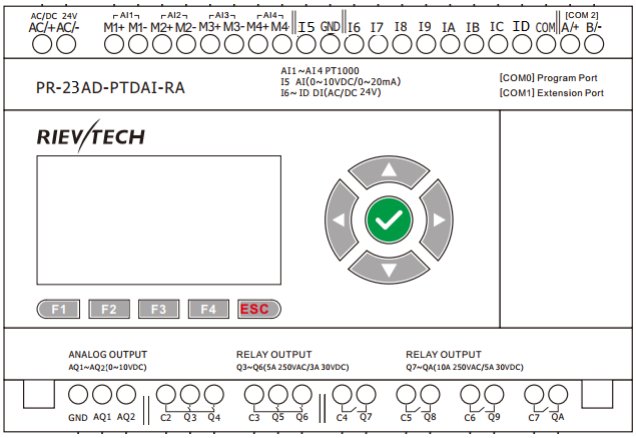
◆ Technical Data:

Model: PR-23AD-PTDAI-RA

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

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, 1 built-in RS485 (C0M2)

Communication protocol: Modbus RTU/ASCII

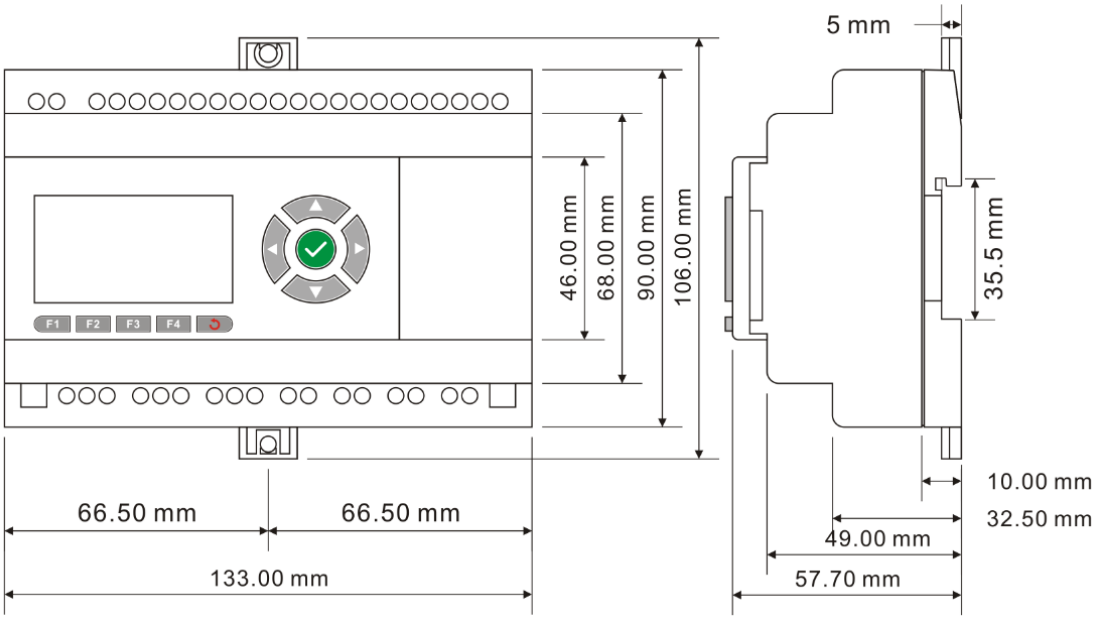
Technical Index

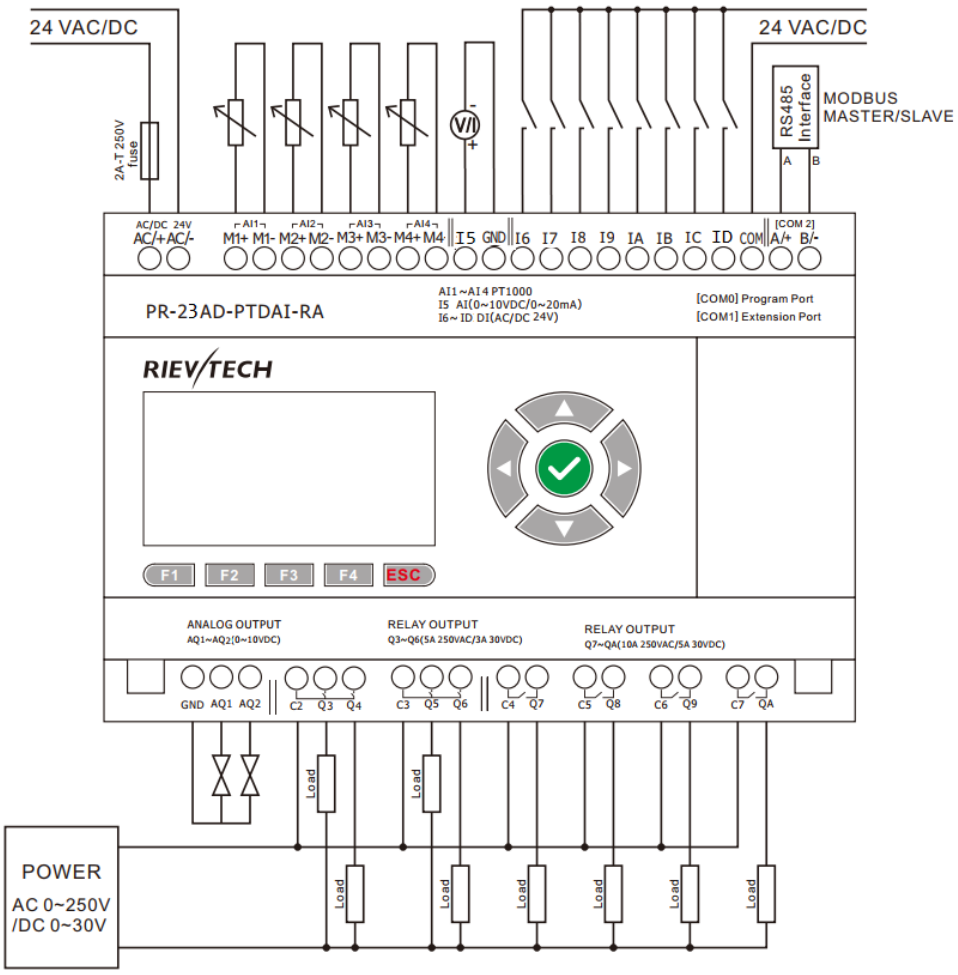
Power supply:	
Nominal voltage (not insulated)	AC/DC 24V
Operating limits	AC 24V; DC 22-28V
Immunity from micro power cuts	Typ. 300ms
Input parameters:	
Input No	13 (AI1-AI5, I6 - ID)
Digital input	8 (I6-ID)
Analogue input	4 PT1000(-50…200℃) + 1(I5)(0...20mA OR 0…10V DC)
PT1000 inputs (AI1-AI4)	
Analog input	4 channels PT1000
Resolution	0.3℃
Measuring range	-50℃ to +200℃
Cable length	10m max. shielded and twisted
Digital input (I6-ID)	
Input voltage	24 VAC/DC, 50/60 Hz opto-isolated

Number of high-speed inputs	0
COM	common digital inputs
Isolation between power supply and inputs	None
Isolation between inputs	None
Analog inputs I5 **Voltage (0..10V)**	
Measurement range	DC 0---10V
Input impedance	Min, 24KΩ; Max. 72KΩ
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
Analog inputs I5 **Current (0..20mA)**	
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. 300 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	
Analog output(0...10V): AQ1--AQ2	
Output No	2 AQ1-AQ2
Output signal	DC 0…10V
Internal value and signal relationship	AQ1/AQ2 (0..1000)= V1(0...10V)
Resolution	0.01V
Accuracy at 25 °C	0.02V
5A Relay 4 outputs (Q3 -- Q6)	
Max. breaking voltage	CE:AC 250 V/DC 30 V 5A UL:AC 250 V/DC 30 V 3A
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

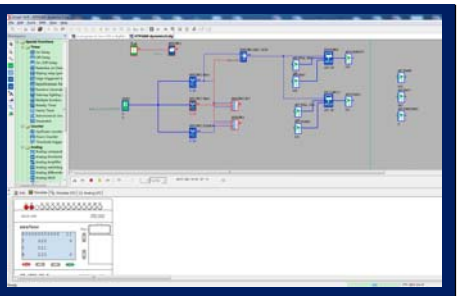
	Against overvoltages and overloads: None
10A Relay 4 outputs (Q7 -- QA)	
Max. breaking voltage	CE:AC 250 V/DC 30 V 10A UL:AC 250 V/DC 28 V 5A
Max. Allowable Power Force	1250VA
Electrical durability Expectancy	10^5 Operations at Rated Resistive Load
Mechanical life	10^7 Operations at No Load condition
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 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 or BACNET MSTP
Ext RS485 COM1	Need use with PR-E-RS485 module Can be used as modbus master or slave
Other parameter	
Weight	Approx.400g

Installation Dimensions & Wiring Dimensions





Program(xlogicsoft) Specification

SYSTEM	Operating System requirements	Windows /2000/XP/WIN7/WIN8			
	Programming languages	Function block			
	Program Memory	512			
	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	512			
	Timing Ranges	10ms--99 h59m			
	Counters				a.Up/down Counter b.Hours Counter c.Frequency Threshold Trigger
	Maximum Number	512			
	Highest Count	99999999			
	Resolution	1			
	RTC				a.Weekly Timer b.Yearly Timer
	Number available	512			
	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	512			
	Function	ADD, Subtract,Multiply, Divide			
	Analog Ramp Function				a. Analog Ramp
	Number available	55			
	Compare Function				a.Analog compactor
	Number available	512			b.Comparison of 2 values
Special Functions	HMI Screens				a.Message texts
	Number available	128			
	Display/Edit	Preset Current value and Free text			
	PWM Functions				a.PWM
	Number available	512			
	Communication Functions				a.Modbus write b.Modbus read
	Number available	512(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.				