

# Standard Step Control Devices



## PC44

PC44 devices are 48 x 48 mm in size. Temperature, pressure, speed, level, humidity, current, voltage, resistance and other physical units of many process variables in industrial environments can be measured. Designed for on / off and PID control, 1 program and 10 steps can be entered. They are fully modular and each module can be configured as self-contained devices.



## PC77

PC77 devices are 72 x 72 mm in size. Temperature, pressure, speed, level, humidity, current, voltage, resistance and other physical units of many process variables in industrial environments can be measured. Designed for on / off and PID control, 1 program and 10 steps can be entered. They are fully modular and each module can be configured as self-contained devices.



## PC99

PC99 devices are 96 x 96 mm in size. Temperature, pressure, speed, level, humidity, current, voltage, resistance and other physical units of many process variables in industrial environments can be measured. Designed for on / off and PID control, 1 program and 10 steps can be entered. They are fully modular and each module can be configured as self-contained devices.

### Device Features

- 2 pcs 4 Digit Numeric Indicator
- 3 pcs LED Indicator
- 1 pcs Transmitter Supply Output (24V)
- 1 pcs Universal Input (TC,RT,mV,V,mA)
- 1 pcs Analog Output (0/4-20mA,0/2-10V)
- 1 pcs RS485 Communication Unit
- 2 pcs Relay or Logic Output
- 100-240Vac/dc or 24Vac/dc Power Supply
- Isolation between Input/Output Modules
- 10 step 1 program Step Kontrol
- 2 different power-up behavior
- ON/OFF, P, PI, PID Control Options
- Auto-Tuning
- Sensor Error Detection
- 9 Different Relay Functions
- Linear and time-proportional control output
- 100ms Sampling and Control Cycle
- Standard MODBUS RTU
- Configuration via Computer

### Device Features

- 2 pcs 4 Digit Numeric Indicator
- 4 pcs LED Indicator
- 1 pcs Transmitter Supply Output (24Vdc)
- 1 pcs Universal Input (TC,RT,mV,V,mA)
- 1 pcs Analog Output (0/4-20mA,0/2-10V)
- 1 pcs RS485 Communication Unit
- 3 pcs Relay or Logic Output
- 100-240Vac/dc or 24Vac/dc Power Supply
- Isolation between Input/Output Modules
- 10 Step 1 Program Step Control
- 2 Different power-up Behavior
- ON/OFF, P, PI, PID Control Options
- Auto-Tuning
- Sensor Error Detection
- 9 Different Relay Functions
- Linear and time-proportional control output
- 100ms Sampling and Control Cycle
- Standard MODBUS RTU
- Configuration via Computer

### Device Features

- 2 pcs 4 Digit Numeric Indicator
- 5 pcs LED Indicator
- 1 pcs Transmitter Supply Output (24Vdc)
- 1 pcs Universal Input (TC,RT,mV,V,mA)
- 1 pcs Analog Output (0/4-20mA,0/2-10V)
- 1 pcs RS485 Communication Unit
- 4 pcs Relay or Logic Output
- 100-240Vac/dc or 24Vac/dc Power Supply
- Isolation between Input/Output Modules
- 10 Step 1 Program Step Control
- 2 Different power-up Behavior
- ON/OFF, P, PI, PID Control Options
- Auto-Tuning
- Sensor Error Detection
- 9 Different Relay Functions
- Linear and time-proportional control output
- 100ms Sampling and Control Cycle
- Standard MODBUS RTU
- Configuration via Computer

## Technical Specifications

Supply Voltage ( PS )	100-240Vac/dc=+10%-15%	24Vac/dc=+10%-20%	Power Consumption = 6W,10VA
Universal Sensor Input( S1 )	Thermocouple = B, E, J, K, L, N, R, S, T, U	Resistance Thermometer = Pt-100	Current = 0/4-20mA
Transmitter Supply ( TX )	Two Wired Transmitter = 4-20mA	Voltage = 0-50mV, 0/2-10V	
Analog Input Impedance	24Vdc ( I <sub>sc</sub> = 30mA )		
Analog Output ( O1,O2 )	Thermocouple, mV = 10MΩ	Current = 10Ω	Voltage = 1MΩ
Relay Output ( R1,R2,R3,R4 )	Current = 0/4-20mA ( RL≥500Ω )		Voltage = 0/2-10V ( RL≥1MΩ )
Contact Lifetime	Contact = 250VAC 10A		Logic Output = 24Vdc 20mA
Memory	No Load = 10.000.000 Switching		250V,10A Resistive Load = 1.000.000 Switching
Accuracy	100 Years, 100.000 Renewals		
Sampling Time	+/- 0,2%		
Environment Temperature	Working = -10...+55°C	Storage = -20...+65°C	
Protection Class	Front Panel = IP54	Trunk = IP20	
Panel Cutting Dimensions	45 +/- 0,5 mm x 45 +/- 0,5 mm	68 +/- 0,5 mm x 68 +/- 0,5 mm	92 +/- 0,5 mm x 92 +/- 0,5 mm
Weight	PC44 = 154 gr	PC77 = 292 gr	PC99 = 430 gr

### PC44 Product Code

PC44 - / 0 / 0

- Power Supply :**  
 0 = 100-240Vac (Universal)  
 1 = 24Vac/dc
- Communication Module :**  
 0 = N/A  
 3 = RS485 (MODBUS) Communication Module
- Analog Output Module :**  
 0 = N/A  
 1 = 0/4-20mA Current Output  
 2 = 0/2-10Vdc Voltage Output
- R1 Output Module :**  
 0 = N/A  
 1 = NO Contact  
 2 = 24V Logic Output ( to drive SSR )  
 3 = NO/NC Contact
- R2,R3 Output Modules :**  
 0 = N/A  
 1 = NO Contact  
 2 = 24V Logic Output ( to drive SSR )

*Note : In this model can't be used with Communication module. Analog output module and R3 output module at the same time. Only one of these modules can be selected.*

### PC77 Product Code

PC77 - / 0 / 0

- Power Supply :**  
 0 = 100-240Vac (Universal)  
 1 = 24Vac/dc
- Communication Module :**  
 0 = N/A  
 3 = RS485 (MODBUS) Communication Module
- Analog Output Module :**  
 0 = N/A  
 1 = 0/4-20mA Current Output  
 2 = 0/2-10Vdc Voltage Output
- R1 Output Module :**  
 0 = N/A  
 1 = NO Contact  
 2 = 24V Logic Output ( to drive SSR )  
 3 = NO/NC Contact
- R2,R3 Output Modules :**  
 0 = N/A  
 1 = NO Contact  
 2 = 24V Logic Output ( to drive SSR )

*Note : If the R3 relay output is coded, the relay outputs R1 and R2 must be coded in the same type. If the relay output R1 is coded as 3 (NO/NC), the R3 module must be 0.*

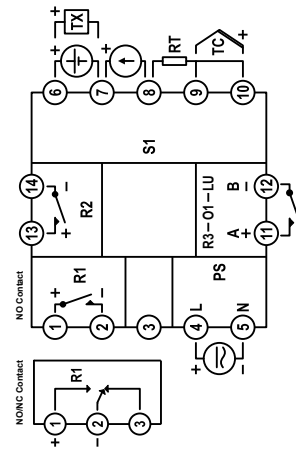
### PC99 Product Code

PC99 - / 0 /

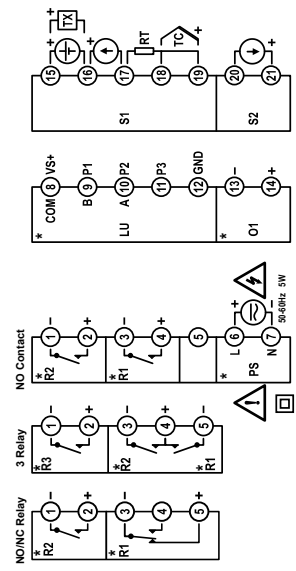
- Power Supply :**  
 0 = 100-240Vac (Universal)  
 1 = 24Vac/dc
- Communication Module :**  
 0 = N/A  
 3 = RS485 (MODBUS) Communication Module
- Analog Output Module :**  
 0 = N/A  
 1 = 0/4-20mA Current Output  
 2 = 0/2-10Vdc Voltage Output
- R1,R2 Output Modules :**  
 0 = N/A  
 1 = NO Contact  
 2 = 24V Logic Output ( to drive SSR )  
 3 = NO/NC Contact
- R3,R4 Output Modules :**  
 0 = N/A  
 1 = NO Contact  
 2 = 24V Logic Output ( to drive SSR )

*Note : If R1 relay is coded as 3 (NO / NC) when relay R2 is selected as contact, it should be coded as NO / NC. When relay R2 is selected as 3 (NO / NC) it must be coded as NO / NC. If R1, R2 module is selected as 3, then R4 module must be coded as 0.*

### PC44 Connection Diagram



### PC77 Connection Diagram



### PC99 Connection Diagram

