

ADVANCED STEP CONTROLLERS

ETRANS – PC700 Datasheet

Precise Measurement,
Ultimate Control

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ADVANCED STEP CONTROLLERS

MODEL Etrans- PC700



Description

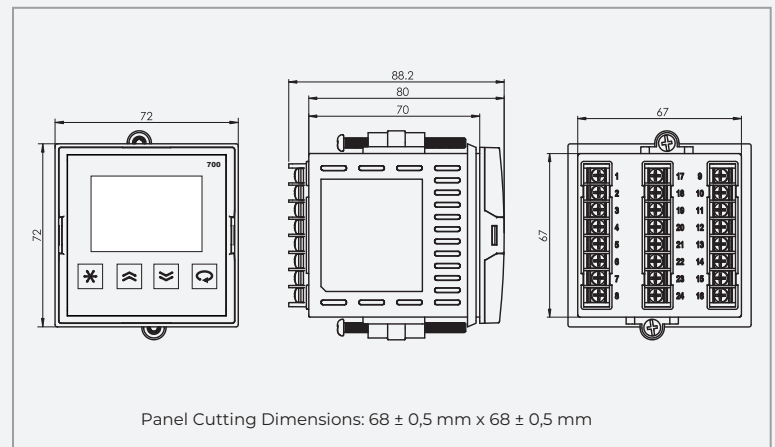
PC700 Model devices are 72x72 mm sized industrial devices. They are completely modular, and each module can be configured independently. They are designed for the measurement, open/closed, and PID control of many process variables such as temperature, pressure, speed, level, humidity, current, voltage, resistance, and other physical units.



General Features

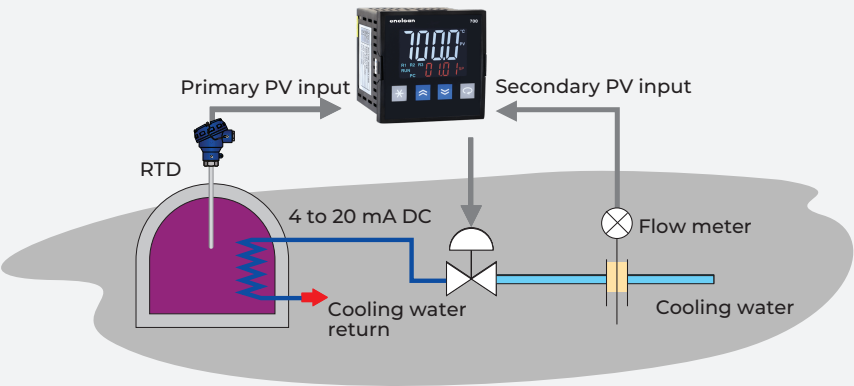
- 2 pieces of 4-digit numeric displays on the LCD.
 - LED displays for relays.
 - 4 pieces of capacitive touch buttons.
 - 1 piece of transmitter supply output (24VDC).
 - 1 piece of universal sensor input (TC, RT, mA, mV, V).
 - 1 piece of auxiliary analog input (0/4-20mA).
 - 3 pieces of digital inputs.
 - 1 piece of analog output (0/4-20mA, 0/2-10V).
 - 1 piece of RS485 communication unit.
 - 3 pieces of relay or logic outputs (24V).
 - 100-240V AC/DC universal or 24V AC/DC supply.
 - Isolation between input and output modules.
 - 800 steps, 100 program step control.
 - Possibility to program relay positions in steps.
 - 7 different power outage behaviors.
 - Control based on the difference of two inputs.
 - Proportional valve control with position feedback, floating control (without feedback), and PID heating/cooling.
 - Auto-Tuning for automatic adjustment of PID parameters.
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- Programmed, automatic, and manual operation modes.
 - Bumpless transfer feature.
 - Sensor fault detection.
 - Remote Set Point with 4 selectable set points.
 - Ramp function.
 - Retransmission for process and set values.
 - 18 different relay functions.
 - ON/OFF, P, PI, PD, and PID control.
 - Linear and time-proportional control output.
 - 100ms sampling and control cycle.
 - Standard MODBUS RTU communication protocol.
 - Master-Slave and Cascade control applications.
 - Configuration via computer.

Device Dimensions



Applications

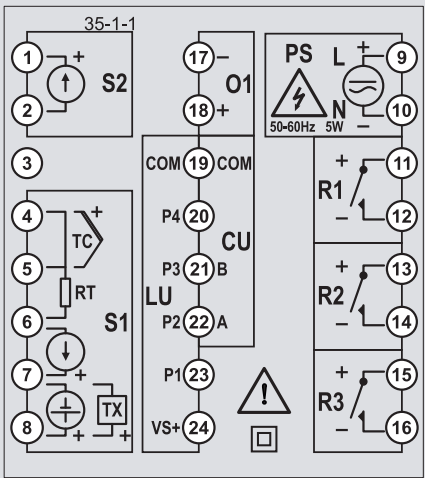
They are used in Food, Plastic, Iron and Steel, Chemistry, Metallurgy, Cement, Ceramics, Petro-Chemistry, Refineries, Glass, and other industrial branches.



Technical Specifications

Supply Voltage (PS)	100-240 Vac/dc +10% -15% Universal; 24 Vac/dc +10% -20% Universal.
Power Consumption	5W, 8VA.
Universal Sensor Input (S1)	Thermocouple = B, E, J, K, L, N, R, S, T, U Two-Wire Transmitter = 4-20mA Resistance Thermometer = Pt-100 Current = 0/4-20mA Voltage = 0-50mV, 0/2-10V
Transmitter Supply (TX)	24Vdc (Isc=30mA)
Analog Input Impedances	Thermocouple, mV: 10MΩ Current: 10Ω Voltage: 1MΩ
Analog Output (O1)	Current = 0/4-20mA (RL ≥ 500 Ω); Voltage = 0/2-10V (RL ≥ 1 MΩ)
Relay Outputs (R1, R2, R3)	Contact: 250VAC 10A; Logic Output: 24Vdc 20mA.
Contact Life	Unloaded = 10,000,000 switching; 250V 10A Resistive Load = 1,000,000 switching.
Other	Memory: 100 years / 100,000 Renewals Accuracy: ± 0.2% Sampling time: 100 ms Operating temperature: -10...+55°C Storage temperature: -20...+65°C
Protection class:	Front panel IP54 / Rear panel IP20
Mechanical Specifications	Width: 72 mm Height: 72 mm Depth: 78.2 mm Weight: 292 gr
Panel Cut-out Dimensions	68 +/- 0.5 mm x 68 +/- 0.5 mm.

Electrical Wiring Diagram



Module	Description
S1	Universal sensor input module. (The sensor used for measuring the process value is connected to the terminals with the corresponding symbol in this module).
S2	0/4-20mA Auxiliary analog input module. (The function of this module can be selected on the device).
LU	Logic input module.
CU	RS485 MODBUS RTU module.
O1	Analog output module. (The content of this module is determined by the product code, and its functions can be selected on the device).
R1,R2,R3	Relay output modules. (The content of this module is determined by the product code, and its function is selected on the device).
PS	Supply voltage input. (The supply voltage is determined by the product code).

Contact us

Enelsan Istanbul Office Address
Şerifali, Barbaros Cd. No: 60, 34775 Ümraniye/İstanbul

Enelsan Factory 1 Address
Çerkeşli OSB Mahallesi İmes 4 Bulvarı No: 11 Dilovası/Kocaeli

Enelsan Factory 2 Address
Çerkeşli OSB Mahallesi İmes 14. Cadde No: 17 Dilovası/Kocaeli

Phone: +90 262 754 63 13
Fax: +90 262 754 93 93
sales@enelsan.com