

SEC611 SERIES**ELECTRONIC
EXPANSION VALVE
CONTROLLER**

Electronic Expansion Valve Controller SEC611 series is the controller with enhanced features for the refrigeration applications, A/C and HP applications.

**FEATURES**

- ADVANCED PID ALGORITHM TO ENSURE ACCURATE AUTOMATIC ADJUSTMENT OF SUPERHEAT;
- QUICK-SAFE PREVENTION OF LOW AND HIGH SUPERHEAT TO ENSURE THE SYSTEM OPERATING WELL AT ANY CONDITIONS;
- SMALL SIZE, RAIL MOUNTING DESIGN, EASY TO INSTALL;
- ENERGY EFFICIENT, ACHIEVING THE MOST EFFICIENT USE OF THE EVAPORATOR.

GENERAL SPECIFICATIONS

- Applicable for various refrigerants
- Operating temperature: -25~60°C
- Storage temperature: -30~60°C
- Relative humidity: ≤95%RH
- Certification: UL, CE Declaration according to EMC
- Installation method: DIN railsnap-in or wall mounting with screws
- Compatible with Sanhua DPF and LPF valves

ELECTRICAL PARAMETERS

- Power supply: 24Vac/24Vdc (+10%/-15%, 50/60Hz)
- Requested transformer: ≥ 15VA
- Inputs: 1 Pressure sensor input
1 Temperature sensor input
1 Communicationinput (RS485 Modbus)
- Output: 1 Auxiliary relay output (30Vdc/5A)
1 EEV output (12V DC±10%), rectangular wave

ELECTRONIC EXPANSION VALVE CONTROLLER



MODEL DESIGNATION LEGEND

NO.				Model Designation Legend
1	2	3	4	
SEC	6	11	R4	SANHUA electronic Expansion valve Controller
SEC	6	11	R4	Digital means the sixth-generation product
SEC	6	11	R4	Odd means voltageP-sensor, even means current type
SEC	6	11	R4	R4 means with RS485 modbus communication

ORDERING METHOD

All the models are compatible with the main refrigerants on the market :

R22, R404A, R410A, R134a, R407C, R507, R1234ze, R1234yf, R290, R450A, R513A, R448A, R449A, R452A, R744(CO2), R744(N2O), R32, R245fa, R23, R407A, R407F, R124, R717, R407H, R454C, R455A.

All the models get a RS485 port for communication.

NO.	Item	Model	Part Number	Details		
				Item	Qty.	
1	Controller Package ¹⁾	SEC611-R4	10680001002	Voltage pressure sensor	°C/Bar+2m Temp. Sensor	1
		SEC613-R4	10680001202		°F/Psi+2m Temp. Sensor	1
		SEC612-R4	10680001102	Current pressure sensor	°C/Bar+2m Temp. Sensor	1
		SEC614-R4	10680001302		°F/Psi+2m Temp. Sensor	1
2	Temp. Sensor ²⁾	NTC2A1	10665000102	2m Temp. Sensor		
3		NTC5A1	10665000202	5m Temp. Sensor		
4		NTC9A1	10665000402	9m Temp. Sensor		
6	Pressure Sensor ³⁾	YCQB02H01-1	10185001502	Ratio with Solder connection, 2m cable length		
7		YCQB02L12-1	10185015502	Ratio with Thread connection, 2m cable length		
8		YCQB02H18-1	10185015402	Ratio with Solder connection, 4.9m cable length		
9		YCQB02L28-1	10185015602	Ratio with Thread connection, 4.9m cable length		
10		YCQC02L18	10185017102	Current with Thread connection, Packard connection		
11	Packard cable	YCQB02-013054	20185016702	For YCQC02L18with 6m cable length		
12		YCQB02-013055	20185016802	For YCQC02L18with 9m cable length		

- Notes:** 1) The controller packages already contain 2m temperature sensor.
 2) The temperature & pressure sensors should be ordered separately.
 3) The pressure sensor is not included in the packages and should be ordered separately.



TEMPERATURE SENSOR

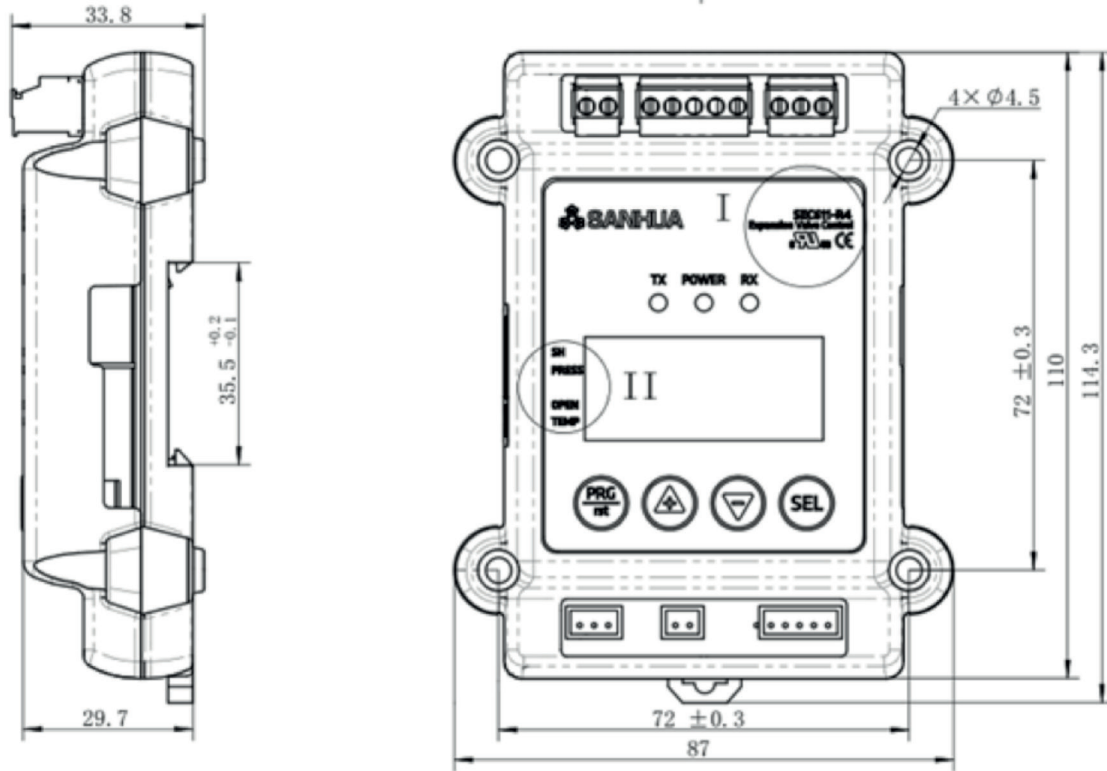
Item	Description	
Temperature Sensor	Type	NTC 5KΩ
	Wire	2C×0.5mm ²
	Protection class	IP 67
	Accuracy	±0.3°C (below25°C)
	Temperature Range	-50 ~50°C

PRESSURE SENSORS

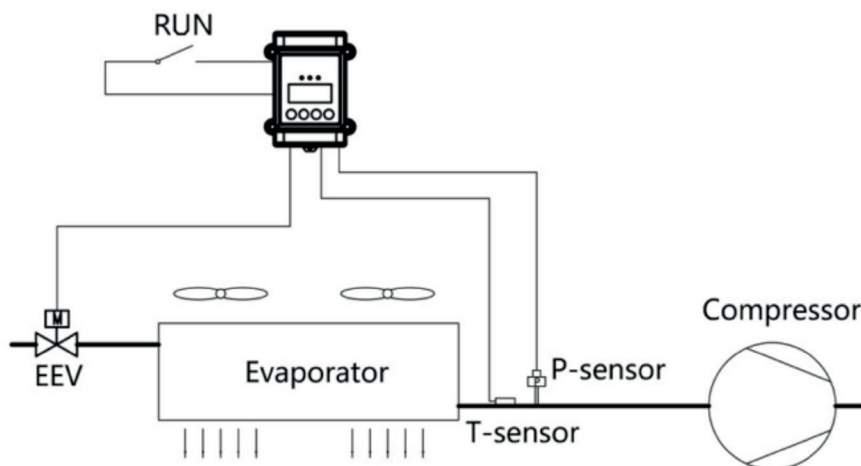
Item	Description		
Pressure sensor	Voltage supply	YCQB: 5±0.25 Vdc YCQC: 10-30 Vdc	
	Output	YCQB: 0.5~3.5 Vdc YCQC: 4-20mA	
	Pressure range	0~20 Bar -1~12 Bar	
	Test Pressure	52.5Bar	
	Accuracy	±0.8% F.S.(-40~40°C)	
	Protection class	IP 67	
	Connection Type	Solder 1/4" Thread SAE - 1/4" 7/16-20UNF	
	Wire	black, white, red	
	Electrical connector	JST-XHP connector Packard connector	



DIMENSIONS AND INSTALLATION



INSTALLATION DIAGRAM



For complete product family information please visit us at www.sanhuaeurope.com and download the full range of datasheet at TECHNICAL INFORMATION LINK.