TC-900E
Digital Controllers & Remote Monitoring

RANCO®

TC-900E-2HP

TC-900E-LOG

2 Year Limited Warranty

RoHS COMPLIANT

NSF

c (UL) US

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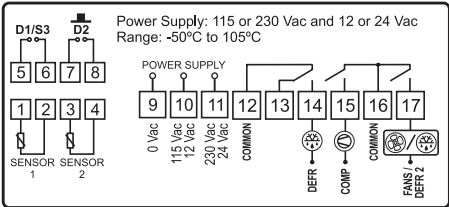HVACCustomerService
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Description

The Ranco® TC-900E Digital Controllers automate the defrost process according to the needs of facilities defrost cycles while providing energy savings. The TC-900E Controllers operate with two sensors, one for room temperature and the other fastened to the evaporator to control defrost and fan functions. The room temperature control has a normal setpoint, an economy setpoint, fast freezing functionality and an alarm for the open-door indicator. These controllers feature up to two digital inputs. One of these inputs may be configured as a third sensor to monitor the condenser temperature and disconnect control outputs in case of an alarm. The digital filter feature simulates an increase in mass of the room temperature sensor, increasing its response time, and avoiding unnecessary compressor activations. The 16 amp relay output can control compressors up to 1 HP and the defrost output has a current capacity of 10 amps. The TC-900E-LOG Digital Controllers have additional features including a built-in memory, a real-time clock to enable defrost schedules for each day of the week, an hour-meter to count the compressors operating hours to indicate predictive maintenance, and a light intensity sensor to trigger the economy setpoint. With the help of an internal auxiliary power supply, the clock keeps working 72 hours in the event of a power failure. Free Sitrad® Remote Management software allows for connectivity to monitor and control your system from any location.

Features and Benefits

TC-900E-2HP and TC-900E-LOG
- Adaptive defrost capable for energy savings
- Adaptive defrost can be less harsh on inventories eliminating unneeded defrost cycles
- Fast freezing better protects inventories

TC-900E-LOG only
- Sitrad® App based software for remote operation and monitoring
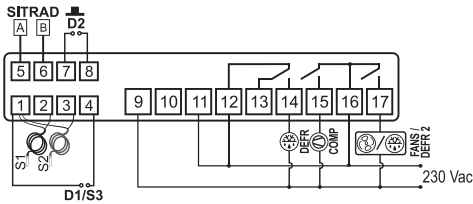- Log data for temperature compliance

Applications

- Low Temperature Cases
- Chest/Upright/Reach-In Freezers
- Walk-in Freezers

Wiring Diagrams

TC-900E-2HP

TC-900E-LOG

Specifications

Part Number	TC-900E-2HP	TC-900E-LOG
Description	Digital controller for freezer applications with three relay outputs and two temperature sensors (Comp/Fans/Defrost)	Digital Controller for Freezer Applications with three relay outputs, two sensors, two digital inputs, buzzer, normal and economical setpoints
Relays	3 Relays	3 Relays
Electrical Rating	115 or 230 VAC, 50/60 Hz	115 or 230 VAC, 50/60 Hz
Temperature Range	-58°F to 221°F (-50°C to 105°C)	-58°F to 221°F (-50°C to 105°C)
Dimensions (WxHxD)	77 x 34 x 77 mm	77 x 34 x 77 mm
Maximum Load Current	COMP: 16(12) 2HP 240VAC DEFR: 10A / 240 VAC 2400W FANS: 5(3)A / 240 VAC	COMP: 12(8)A / 240 VAC 1HP DEFR: 10A / 240 VAC 2400W FANS: 5(3)A / 240 VAC
Maximum Load Power	2HP	1HP
Protection	IP65 (Frontal)	IP65 (Frontal)
Sitrad® Compatible	No	Yes

RANCO®