# **DIN NANO 5CK**

The DIN NANO 5CK is a 5 relays electronic regulator DIN rail designed to control refrigerated counters, display windows and static or ventilated refrigeration units with off-cycle or electrical defrosting in real time (RTC). It is fitted with three analogue inputs for NTC temperature probes, three digital inputs, five relays for the compressor control, fans, defrosting function, light and alarm (2 configurable relays). The buzzer is a standard and the controller can also be configured for applications call hot.

The remote console of control (5 meters, RS485) is a standard.

As option the connection to an echo temperature repetition.



### **APPLICATIONS**

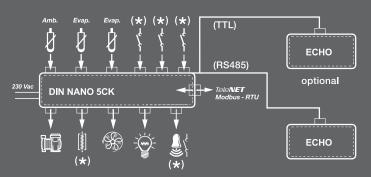
- Control of refrigerated counters, display windows and refrigeration units.
- Control of two evaporators with two temperature probes of end defrost.

## MAIN CHARACTERISTICS

- Remote console of control (5 meters, RS485).
- Integrated console of control (optional).
- A temperature repeater echo display is available as an option.
- IP65 remote display protection.
- Can be configured for hot or cold applications.
- Can be configured for managing day / night (automatic modification of the setpoint for energy saving) activated by time mode (real time clock) or by means of the digital input.

# **CONNECTION DIAGRAM**

(\*) = Configurable function



- Can be configured to manage two evaporators with dual temperature sensor for defrost termination.
- Relay managing compressor, fans of evaporator and light (3 non-configurable relays) and defrosting resistances, alarm, pump down start, room light and compressor output (2 configurable relays).
- Defrosting activation in real-time, up to 6 starts in 24h.
- Defrosting can be configured for off-cycle, heating element or cycle inversion and frequency and duration can be set. End-of-defrosting can be based on time or temperature.
- Key operated manual START/STOP defrosting.
- Key operated ON/OFF.
- Cold room light ON/OFF switch with key or by means of door switch.
- 3-figure LED display sign, decimal point and plant status icons.
- Internal buzzer for acoustic signals.
- PEGO programming philosophy guaranteeing immediate start-up.
- RS485 serial connection with Modbus-RTU or Telenet protocol.
- Power supply 230 V AC.
- HACCP function with memory and visualization of the last alarm.



# ELECTRONIC REGULATORS DIN NANO SERIES

**ECHO** 

### **DIN NANO 5CK**

121,50



-37

— 93 ——

28,30 (X70)

23,1

• 105 ·

**←** 71 **←** 

| TECHNICAL CHARACTERISTICS           | DIN NANO 5CK   |
|-------------------------------------|--|
| DIMENSIONS                          | DIN NANO 5CK: 105 x 121,5 x 71 mm<br>ECHO: 93 x 37 x 23,1 mm |
| WEIGHT                              | 0,5 kg   |
| PROTECTION RATING<br>(DISPLAY ECHO) | IP65 with front board installation                           |
| POWER SUPPLY                        | 230 V AC ±10% 50-60 Hz                                       |
| ABSORBED POWER                      | 5 VA max   |
| WORKING TEMPERATURE                 | -5 ÷ +50 °C  |
| STORAGE TEMPERATURE                 | -10 ÷ +70 °C   |
| RELATIVE AMBIENT HUMIDITY           | < 90% RH   |
| DISPLAY                             | 3-Digit with sign, decimal point and LED status indicators   |
| RESOLUTION                          | 0,1 °C   |
| PROBE PRECISION (electronic)        | ±0,5 °C  |
| READING RANGE                       | -45 ÷ 99 °C  |
| CONNECTION                          | Screw removable clamps                                       |
| SOFTWARE CLASS                      | A / parameters saved on non-volatile memory (EEPROM)         |
| CLOCK (RTC)                         | PRESENT  |
| INPUTS                              |  |
| ANALOGUE                            | 3 inputs for NTC probes (10 k $\Omega$ 1% at 25 °C)          |
| DIGITAL                             | 3 configurable inputs (free voltage contact)                 |
| OUTPUTS                             |  |
| COMPRESSOR RELAY                    | (DO1) N.O. 16(6)A / 250V~                                    |
| HEATINGS ELEMENTS RELAY             | (DO2) N.O. 16(6)A / 250V~                                    |
| FAN RELAY                           | (DO3) N.O. 16(6)A / 250V~                                    |
| LIGHT                               | (DO4) N.O. 8(3)A / 250V~                                     |
| ALARM/AUX RELAY                     | (DO5) N.O. 8(3)A / 250V~                                     |
| BUZZER                              | PRESENT  |
| SUPERVISION SYSTEM                  | TELENET / MODBUS-RTU   |
| ACCESSORIES                         |  |
| ACCESSORIES AVAILABLE               | NANO BOX I NANO ADAPTER                                      |
|                                     |  |

