The test normally takes a few seconds, when it is finished the display will switch off.

1. Install following the instructions given in the section 4.1 Switching the device on/off
- Door switch/multi-purpose input.
- Controller for normal temperature units.

if the display shows an alarm code, see the section ALARMS.

5. Make the electrical connection as shown in the section ELECTRICAL CONNECTION
- Power supply for TC3X21N7V: 230 VAC.
- Ensure that the working conditions are within the limits stated in the TECHNICAL SPECIFICATIONS section.
The thickness of the panel must be between 0.8 and 2.0 mm (1/32 and 1/16 in)

4.1 Switching the device on/off
1.  Touch the DOWN key for 4 s.
2.  Touch the SET key for 4 s.
3.  Touch the UP key for 2 s.
4.  Touch the UP or DOWN key within 15 s to set the value within the limits stated.
5.  Touch the UP or DOWN key to select a parameter.
6.  Touch the SET key.
7.  Touch the UP or DOWN key within 15 s to set the value.
8.  Touch the SET key.
9.  Touch the UP or DOWN key within 15 s to set the value.
10. Touch the SET key for 4 s (or do not operate for 60 s) to exit the procedure.

5.2 Restore the factory settings (default) and store customized settings as default.

5.3 setting configuration parameters
1.  Touch the DOWN key for 4 s: the display will show the label "PF12".
2.  Touch the SET key.
3.  Touch the UP or DOWN key within 15 s to set the value within the limits stated.
4.  Touch the SET key.
5.  Touch the UP or DOWN key to select a parameter.
6.  Touch the SET key.
7.  Touch the UP or DOWN key within 15 s to set the value.
8.  Touch the SET key for 4 s (or do not operate for 60 s) to exit the procedure.

4. ALARMS
- Door switch/multi-purpose input alarm
- Controller for normal temperature units.

6. USER INTERFACE AND MAIN FUNCTIONS

3.  Touch the DOWN key for 4 s.
4.  Touch the SET key for 4 s; the display will show the label "PF12".
5.  Touch the UP or DOWN key to select a parameter.
6.  Touch the SET key.
7.  Touch the UP or DOWN key within 15 s to set the value.
8.  Touch the SET key.
9.  Touch the UP or DOWN key within 15 s to set the value.
10. Touch the SET key (or do not operate for 15 s) to exit the procedure.

7. CONFIGURATION PARAMETERS

2.  Touch the DOWN key for 4 s: the display will show the label "PF12".
3.  Touch the SET key.
4.  Touch the UP or DOWN key within 15 s to set the value within the limits stated.
5.  Touch the SET key.
6.  Touch the UP or DOWN key to select a parameter.
7.  Touch the SET key.
8.  Touch the UP or DOWN key within 15 s to set the value.
9.  Touch the SET key.
10. Touch the UP or DOWN key within 15 s to set the value.

4.1 Switching the device on/off
1.  Touch the DOWN key for 4 s.
2.  Touch the SET key for 4 s.
3.  Touch the UP key for 2 s.
4.  Touch the UP or DOWN key within 15 s to set the value within the limits stated.
5.  Touch the UP or DOWN key to select a parameter.
6.  Touch the SET key.
7.  Touch the UP or DOWN key within 15 s to set the value.
8.  Touch the SET key for 4 s (or do not operate for 60 s) to exit the procedure.

4.4 Activate manual default (if r5 = 0, default)
Check that the keypad is not locked.
1.  Touch the DOWN key for 4 s.
2.  Touch the SET key.
3.  Touch the UP key for 2 s.
4.  Touch the UP or DOWN key within 15 s to set the value within the limits stated.
5.  Touch the DOWN key for 4 s: the display will show the label "PF12".
6.  Touch the SET key.
7.  Touch the UP or DOWN key to select a parameter.
8.  Touch the SET key.
9.  Touch the UP or DOWN key within 15 s to set the value.
10. Touch the SET key.
11. Touch the UP or DOWN key within 15 s to set the value.
12. Touch the SET key for 4 s (or do not operate for 60 s) to exit the procedure.
Measurements

- Heights: 75.0 x 33.0 x 39.5 mm (2 15/16 x 1 5/16 x 1 9/16 in)

Mounting methods for the control device

- To be fitted to a panel, snap-in brackets provided

Degree of protection provided by the covering

- IP65 (front)

Connection method

- Fixed screw terminal blocks for wires up to 2,5 mm²

Maximum permitted length for connection cables

- Power supply: 10 m (32.8 ft)
- Analog inputs: 10 m (32.8 ft)
- Digital inputs: 10 m (32.8 ft)
- Digital outputs: 10 m (32.8 ft)

Operating temperature

- From -13 to 158 °F (from -25 to 70 °C)

Operating humidity

- Relative humidity without condensate from 10 to 90%

Pollution status of the control device

- 2

Compliance

- Europe: PENN declares product compliance meets requirements of EMC, LVD, and RoHS Directives.
- USA: UL Recognized Component, SDFY2.SA516; FCC Part 15 Subpart B Class A
- Canada: UL Recognized Component, SDFY8.SA516; ICES-003 Class A

Power supply

- 115 VAC (+10% -15%), 50/60 Hz (±3 Hz), max. 2 VA

Grounding methods for the control device

- None

Over-voltage category

- II

Software class and structure

- A

Analog inputs

- 1 for NTC probes

NTC probes

- Sensor type: β3435 (10 KΩ @ 77 °F, 25 °C)

Measurement field

- From -40 to 221 °F (from -40 to 105 °C)

Resolution

- 1 °F (0.1 °C)

Digital outputs

- 1 electro-mechanical relay (compressor relay)

Type 1 or Type 2 Actions

- Type 1

Additional features of Type 1 or Type 2 actions

- C

Displays

- 2 digit custom display, with function icons

10 PRODUCT WARRANTY

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

11 SOFTWARE TERMS

Use of the software that is in (or constitutes) this product, or access to the cloud, or hosted services applicable to this product, if any, is subject to applicable terms set forth at www.johnsoncontrols.com/techterms. Your use of this product constitutes an agreement to such terms.

12 SINGLE POINT OF CONTACT

APAC

- JOHNSON CONTROLS

Europe

- C/O CONTROLS PRODUCT MANAGEMENT

NA/SA

- JOHNSON CONTROLS

13 CONTACT INFORMATION

Contact your local branch office:

www.johnsoncontrols.com/locations

Contact Johnson Controls:

www.johnsoncontrols.com/contact-us

Johnson Controls

507 E. Michigan St.

Milwaukee, WI 53202-5211

USA

www.penncontrols.com

Important

The device must be disposed of according to local regulations governing the collection of electrical and electronic wastes.