SOLLATEK DATA SHEET NO:

10910489

FREOCOM FCZ12EP™
ULTRA LOW COST TEMPERATURE CONTROL WITH DEFROST, BLUETOOTH CONNECTIVITY & VOLTAGE PROTECTION

Description

The FCZ12EP ensures accurate temperature control for your cooler/fridge/freezer with timed and/or temperature controlled defrost and connection to BLE (Bluetooth Low Energy).

The FCZ12EP controls the compressor. It has two sensor inputs that can be used for temperature (air and / or evaporator) and door sensing.

A connection port is provided for programming or a BLE module. Real time controller telemetry data can be viewed and uploaded to an online portal via the Sollatek Smart phone App.

Moreover, the FCZ12EP protects equipment against high and low voltages and is fully encapsulated to be resistant to environmental factors.

All the above make the FCZ12EP the low cost solution for high performance control of all refrigeration equipment.

Features

- Ultra low cost temperature controller

- Highly accurate temperature measurement and control – not affected by barometric pressure

- Small physical size

- Direct retrofit for electro-mechanical thermostats

- Two external remote temperature probes for precise measurement

- Can interface to door switch

- Connects to a Bluetooth module via the Micro USB port

- Bluetooth allows asset identification, telemetry data to be viewed and uploaded and customer engagement

- User-adjustable temperature dial. Range fully customisable by the user

- Time and/or temperature controlled defrost with advanced features

- Switching at zero voltage crossing for long relay life

- Available as 115 or 230 VAC versions

- Encapsulated to give water splash resistance for harsh applications

- 1 Red LED for status indication

- Fully Programmable via PC software or SPP programmer device for in the field upgrades

- Intelligent time delay (TimeSave™)

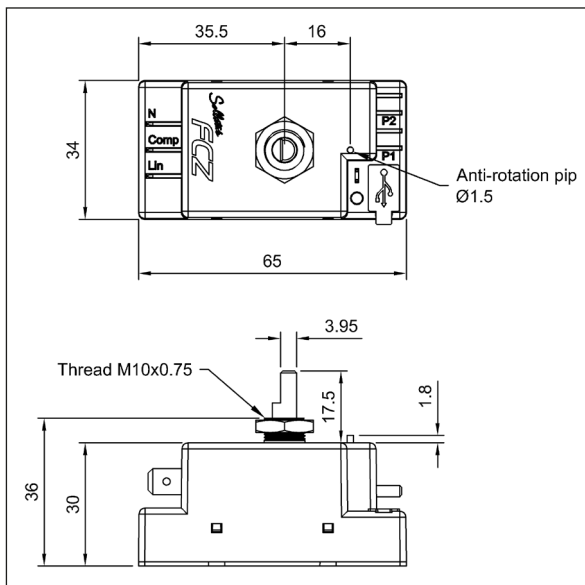- Complete voltage protection (high and low protection)

Features

| MICROPROCESSOR CONTROL | SPLASH PROOF | START UP DELAY | TIMED DEFROST | PROGRAMMABLE | USER ADJUSTABLE | 10 AMPS UP TO | BLUETOOTH |

Technical Specification

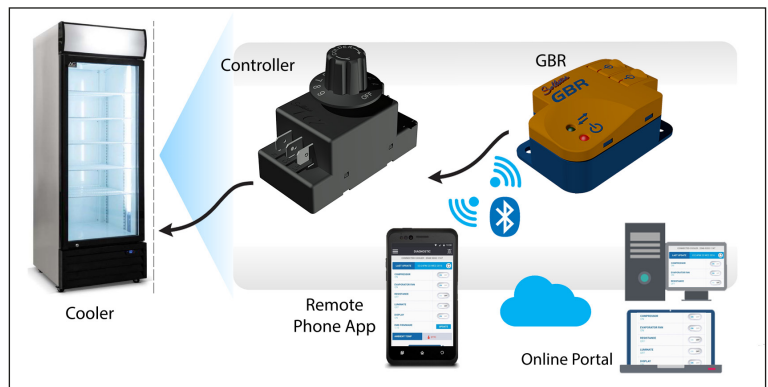|		
Temperature Control Method*	Air or evaporator	
Defrost Control*	Timed or Active	
Timed Defrost*	Real Time, Accumulated Time or Continuous Time	
Duration between Defrost*	1 - 255 Hours	
Defrost Duration*	1 - 255 Mins	
Active Defrost*		
Defrost Start Temperature*	-40℃ to +70℃	
Defrost End Temperature*	-40℃ to +70℃	
Other Defrost Modes	Emergency	
Door Switch	Via second probe input	
Temperature Control Range	-40℃ to +70℃ (-40°F to +158°F)	
Temperature Probe Type	100 KΩ NTC ($\beta_{25/85}$: 4060 K)	
Temperature Probe Length	Variety of lengths available	
Intelligent Time Delay*	30 sec to 10 min - maximise compressor availability	
Output Control	Compressor	
Temperature Blind Time*	1 to 125 sec	
Compressor Relay	IEC 60730 10 (10) A	
Indication	1 off status LED (Red)	
Control knob	0-9 with off position	
Operating Voltage	115 V	230V
Voltage Protection	High voltage and low voltage disconnect	
Immediate Disconnect Voltage	75 / 150 V	150 / 300 V
Low Voltage Blind Time*	0 - 25 sec	
High Voltage Blind Time*	0 - 25 sec	
Working Frequency	Auto-sense 50/60 Hz	
Control	Microcontroller with 10-bit ADC resolution for Temperature sensing and control	
Power / Output Connections	3 x 0.25" (6.35 mm) Fast-On	
Input Connections	2 pairs of 0.11" (2.80 mm) Fast-On for Temperature Sensing and Door Switch	
Programming Connector	Micro USB	
Environmental	Internal Electronics: IP65	
Certifications	CE, CB, IEC - EN 60730	
Mounting	M10 Nut (supplied with controller)	
Unit Dimensions (L x W x H)	65.0 x 34.0 x 30.0 mm (without Dial)	
Unit Weight	Approx. 65 g	

* All the above operational parameters are configurable based on the customer's requirements

Dimensional Drawing

FCZ12EP External Bluetooth Connectivity

Stock No	Description
92335EP1	FreoCom FCZ12EP 115 V 1xO/P 2xI/P
92335EP2	FreoCom FCZ12EP 230 V 1xO/P 2xI/P

Intelligent Controls

MBA	20/06/2018

FCZ12EP Data Sheet
June 2018