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Beta ELECTRONICS
□ Temperature Control

digital thermostats and contr. for refrigeration
BL32

APPLICATION FIELD: the BL32 is an electronic controller suitable for refrigeration applications, conceived in particular for low temperature refrigerating static units. The measuring range varies between -55 χ +55 °C (-67 χ +131 °F).

CARRIED OUT ACTION: the BL32 operates as an ON/OFF cooling regulator. This means that the compressor stops when set point temperature is reached and restarts at a temperature equal to the set point one plus a differential. The BL32 allows managing defrost cycles by time by simple compressor stop. The 2nd PTC probe near the evaporator allows terminating defrost cycles by temperature too.

SETTING: the set point temperature and the differential (hysteresis), are set by the user. Defrost cycle duration, the interval between two consecutive cycles and cycle-out temperature are settable too. Users are allowed to manage operating parameters (max./min. temperature alarms, °C/°F choice, probe error correction, keyboard locking, etc.).

USER-FRIENDSHIP: the BL32 stands out for the innovative design of the ColorLine series, based on the only push button on the frontal mask and on the new alphanumerical system to visualize parameters that permits a quick and intuitive controller setting. Available on request the version with the "ENCO" push button, a new and exclusive tool to have access to the instrument configuration in a practical and intuitive way, by simply pressing and rotating the knob on the frontal mask.

INPUT: the BL32 is provided with 2 inputs for PTC standard probe for medium-low

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TECHNICAL SPECIFICATIONS
Housing: self-extinguish UL94V0 ABS
plastics, black colour
Size: frontal 32 x 74 mm; depth 78 mm
(incl. terminal cover)
Mounting: flush-panel on hole 28 x 70
mm (with "fast-lock" sliding brackets)
Protection: IP 64 for the frontal
panel
Connections: on screw terminal board
for wires with cross section area <
2,5 mm2

Display: LED, 3 digits, 12.5 mm high

Data storing: on EEP-ROM not volatile
memory
Operating temperature: -5 χ +65 °C
(+23 χ +149 °F)
Stocking temperature: -30 χ +75 °C (-
22 χ +167 °F)
Relative humidity: 20 χ 85 % (not
condensing)
Measure range: -55 χ +55 °C (-67 χ
+131 °F) for PTC probe
Outputs: 1 on a SPDT 16(8) A 250 Vac
relay; 1 on a SPST 5(2) A 250 Vac
relay

Analogue inputs: 2 for PTC probes

Resolution: 1 °C (1 °F)

Accuracy: better than 0.5% f.s. ± 1
digit
Power supply: standard 12 Vac/dc ±
15%; available 230 Vac +5/-10% 50/60
Hz through built-in transformer
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temperatures. Furthermore, it can manage 1 digital input to check door state (open/close), for energy saving, etc. The "Quick-Key" programming connector is also available; through it users can quickly and easily reset default values of operating parameters.

OUTPUT: it is provided with 2 relays. The main (compressor) one is for 16 A load. The secondary one is for 5 A load. The alarm condition can be managed through an internal buzzer, or through a 5 A relay, for external drive (also combined).

POWER SUPPLY: it can be connected directly to the supply mains with 230 Vac voltage (115 Vac on request) through the internal transformer. It can be supplied with switching-mode facility (12-24 Vac/dc). This feature is a decisive factor for the automotive field, where voltage rushes can be relevant.

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