

# COLDROOM CONTROLLER WITH TIME CLOCK

LCCE

Type LCCE is a unit suitable for the control of coldrooms where defrosts are controlled locally according to time of day. The unit controls the coldroom temperature by measuring two air temperatures and operating the evaporator solenoid valve or condensing unit. The LCCE can control 2 evaporators working together with independent defrost termination.

Up to 4 defrosts per day can be achieved by setting a schedule of defrost start times and durations in the unit. Defrosts are terminated when the temperature of the defrost termination sensor(s) exceed(s) an adjustable defrost termination value, or when an adjustable time is reached.

Evaporator fans are run while refrigerating and are stopped during defrost and defrost recovery. The pan heater output is turned on during defrost, remains on for an adjustable drain-down period and is off at all other times.

The unit detects and indicates high temperatures. The alarm level and its response time are adjustable.

The fans may be stopped when the coldroom door is open and an alarm is raised if the door remains open beyond an adjustable time limit.

Coldroom temperature together with simple alarm and defrost mode messages can be indicated locally using a JTL display unit. Pushbuttons on the display unit can be used to allow the display to indicate the individual probe temperatures and other useful data.

A plant alarm input is provided for local and remote indication. The controller can be isolated remotely providing capability for standby unit operation.

Type LCCE provides comprehensive alarm reporting, data-logging and remote access when connected to a JTL Communications Unit. Type LCCE is ideal for use with electric defrost or "3rd pipe" gas defrost systems.

## FEATURES

- ◆ Up to 4 timed defrosts per day
- ◆ Temperature measurement inputs
- ◆ Temperature display drive
- ◆ Relay outputs
- ◆ Maintenance Unit socket
- ◆ External alarm input for plant
- ◆ Remote isolation facility
- ◆ Remote shutdown facility
- ◆ Communications socket
- ◆ Default data set-up switches
- ◆ Non-volatile set-up memory
- ◆ Watchdog to ensure reliable operation
- ◆ Battery supported data-logging memory
- ◆ Battery supported real-time clock



## HARDWARE

◆	Temperature probe inputs	6
◆	Probe types supported	JTL, Elm (selectable)
◆	Temperature display drives	1
◆	Temperature display type	LED5
◆	Voltage-free contact outputs	5
◆	Optically isolated high voltage inputs	2 (230 V ac max)
◆	Data-logging memory capacity	800 points on 4 channels

## TECHNICAL SPECIFICATION

Temperature probe input 1	Air On
Temperature probe input 2	Air Off
Temperature probe input 3	Evaporator
Temperature probe input 4	Suction Line
Temperature probe input 5	Defrost termination 1
Temperature probe input 6	Defrost termination 2
Output 1	Pan heater control
Output 2	Fan control
Output 3	Liquid valve control (Normally closed valve)
Output 4 (changeover contact)	Defrost control 1
Output 5 (changeover contact)	Defrost control 2
Relay output rating	2 A resistive (230 V max)
Communications port	RS485 2 wire
Communications data rate	600/4800 baud (auto selected)
Communications protocol	JTL zone protocol
Input 1	Door Switch
Input 2	Plant alarm
Unboxed dimensions(LxWxH)	208 x 167 x 43 mm
Unboxed weight	0.52 kg
Power supply (standard)	230 V 48-62 Hz
(optional)	110 V

## ORDERING INFORMATION

LCCE ..... printed circuit board only

### Power Supply Options:

For 110 V append - 110 to order code

For suitable enclosures see appropriate datasheet.



This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions

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## JTL SYSTEMS LTD

Sales: 41 Kingfisher Court, Hambridge Road, NEWBURY, Berkshire, RG14 5SJ  
Service: 1 Petre House, Petre Street, SHEFFIELD, S. Yorks, S4 8LJ

Tel: (01635) 263646  
Tel: (0114) 256 0908

