



CONTROL SYSTEMS LACE Universal Coldroom Controller



For pulsed expansion valve applications incorporating all common defrost types.



- Stand alone or networked product
- Registered for Enhanced Capital Allowance (ECA)
- Option to control liquid line valve or condensing unit
- Evaporator fan control
- Datalogging at board level
- Door switch input
- Plant alarm input
- Man trapped alarm input
- Set up parameters maintained for restart
- JTL PREDICT defrost enabled

Product Data

Temperature Control

LACE controls the coldroom temperature by measuring upto two air temperatures and operating a pulsed expansion valve, liquid line solenoid valve or condensing unit. The pulsed expansion valve is controlled using a pressure transducer and suction temperature sensor.

Defrost Control

Defrost can be initiated by JTL Network communications, external input or by real time clock within the controller. Self detect defrost is available when using gas defrost systems.

This controller supports JTL PREDICT (defrost on demand) and coordinated defrost scheduling.

In the event of a communications failure, the controller initiates a "learned defrost" strategy. Upto 12 defrosts per day can be scheduled.

Alarms

LACE will monitor and alarm on high temperature and if defrosts are not detected. Temperature alarms are inhibited during defrost and defrost recovery. The LACE monitors coldroom door operation and will alarm if a pre-defined door open delay period is exceeded. Alarm parameters and delay periods are configurable on site or remotely. Man trapped alarms can be monitored using the LACE controller.

Datalogging

Provides comprehensive alarm reporting and datalogging when connected to a JTL Network.

Display

Coldroom temperature, defrost and alarm messages can be indicated locally on a JTL display.

Remote Access

If operating within a JTL Network, alarm parameters and alarm settings can be viewed and adjusted remotely.

Hardware

Temperature sensor inputs	5
Temperature sensor types supported	5 kohm NTC thermistor
Pressure sensor input (0-7 bar)	4-20 mA
Pressure sensor supply voltage	15 V dc
Pressure sensor load impedance	250 ohms
Temperature display drives	1
Temperature display types	LED1 or LED5
Voltage-free contact outputs	5
Optically isolated high voltage inputs	2 (240 V max)
Datalogging memory capacity	800 points on 4 channels

Technical Specification

Temperature sensor input 1	Air On
Temperature sensor input 2	Air Off
Temperature sensor input 3	Evaporator
Temperature sensor input 4	Suction Line
Temperature sensor input 5	Defrost termination
Pressure sensor input 7	Suction pressure
Output 1	Pan heater control
Output 2	Fan control
Output 3	Suction valve control
Output 4 (changeover contact)	Defrost control
Output 5 (solid state relay)	Liquid solenoid or pulsed expansion valve
Relay output rating (outputs 1-4)	5 A resistive (240 V max)
Input 1	Door Switch
Input 2	Plant alarm, defrost input, man trapped, shutdown (selectable)
Communications port	RS485 2 wire
Communications data rate	4800 baud
Communications protocol	JTL Jnet zone protocol
Unit dimensions unboxed (L x W x H)	208 x 167 x 43 mm
Unit weight unboxed	0.52 kg
Controller dimensions boxed (L x W x H)	248 x 176 x 56 mm
Controller weight boxed	1.56 kg
Power supply (standard)	230 V 48-62 Hz

Ordering Information

LACE	Controller unboxed
LACE-B	Controller boxed



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



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