



## CONTROL SYSTEMS LACI Coldroom Controller



**For pulsed expansion valve applications incorporating all common defrost types.**



- Stand alone or networked product
- 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

LACI controls the coldroom temperature by measuring up to two air temperatures and operating a pulsed expansion valve. The pulsed expansion valve is controlled using a pressure transducer and suction temperature sensor.

#### Defrost Control

Defrost can be initiated by JTL Network communications or by real time clock within the controller.

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. Up to 12 defrosts per day can be scheduled.

#### Alarms

LACI will monitor and alarm on high temperature and if defrosts are not detected. Temperature alarms are inhibited during defrost and defrost recovery. The LACI 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 LACI 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 .....	PT1000 resistor
Pressure sensor input (-1 to 7 bar) .....	4-20 mA
Pressure sensor supply voltage .....	15 V dc
Pressure sensor load impedance .....	47 ohms
Temperature display drives .....	1
Temperature display types .....	LCD13
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) .....	Pulsed expansion valve

Relay output rating (outputs 1-4) ..... 5 A resistive (240 V max)

Input 1 .....	Plant fault
Input 2 .....	Man Trapped, Door switch

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

LACI .....	Controller unboxed
LACI-B .....	Controller boxed



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



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