



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



- Stand alone or Networked product
- Cabinet lighting/night blind control
- Fan control
- Datalogging at board level
- Multiple temperature control (2 temperature ranges)
- Keyswitched case clean mode
- Set up parameters maintained for restart
- JTL PREDICT defrost enabled

**Product Data**

**Temperature Control**

LAPI controls the display cabinet temperature by measuring 2 air temperatures and operating a pulsed expansion valve. The pulsed expansion valve is controlled using a pressure transducer and suction temperature sensor. 2 cabinet operating temperatures can be selected when using the LAPI in conjunction with an LCD9 keyswitched display.

**Defrost Control**

Defrost can be initiated by JTL network communications or by real time clock within the controller. Suitable for use with all common defrost methods.

This controller supports JTL PREDICT and co-ordinated defrost scheduling.

In the event of a communications failure, the controller initiates a “learned defrost” strategy or a preprogrammed schedule.

Up to 12 defrosts per day can be scheduled.

**Trim Heater Control**

There are 4 separate strategies for trim heater control.

- Controlled with an adjustment received from the network.
- Controlled to a fixed percentage output which can vary in and out of trading hours.
- Controlled to set percentage output.
- Switched off when controller shutdown using display keyswitch.

**Alarms**

LAPI will monitor and alarm on high temperatures and if defrosts are not detected. Temperature alarms are inhibited during defrost and defrost recovery. Alarm parameters and delay periods are configurable on site or remotely.

**Datalogging**

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

**Display**

Cabinet temperature, defrost and alarm messages can be indicated locally on a JTL display with or without keyswitch operation.

**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 inputs .....                 | 1                         |
| 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 outputs .....            | 1                         |
| Temperature display types .....              | LCD8 & LCD9               |
| Voltage-free contact outputs .....           | 4                         |
| Solid state relay output .....               | 1                         |
| Optically isolated high voltage inputs ..... | 2 (240 V max)             |
| Datalogging memory capacity .....            | 1000 points on 3 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 .....                   | Suction pressure              |
| Output 1 .....                                | Blind closed/Lights off       |
| Output 2 .....                                | Fan Control or heater control |
| Output 3 .....                                | Trim heater control           |
| Output 4 (changeover contact) .....           | Defrost control               |
| Output 5 (solid state relay) .....            | Pulsed valve control          |
| Relay output rating (Outputs 1-4) .....       | 5 A resistive (240 V max)     |
| Solid state output rating (Output 5) .....    | 2 A resistive (240 V max)     |
| Input 1 .....                                 | Plant fault                   |
| Input 2 .....                                 | Lighting and Blind override   |
| 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 .....                            | 230 V 48-62 Hz                |

## Ordering Information

|              |                    |
|--------------|--------------------|
| LAPI .....   | Controller unboxed |
| LAPI-B ..... | Controller boxed   |



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

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