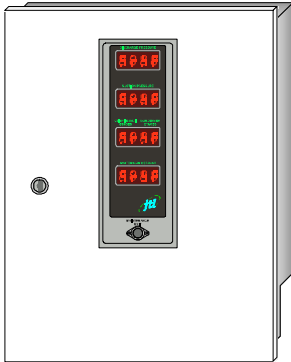


# COMPRESSOR CONTROLLER for screw compressors

## CPSA



Type CPSA is a unit suitable for the control of integrated groups of compressors and associated condensing and defrost systems. The unit measures the **suction pressure** and maintains the pressure within adjustable limits by running or stopping compressors or by including or excluding steps of compression as appropriate. **The discharge pressure** is also monitored and is maintained within adjustable limits by increasing or decreasing steps of condensing as appropriate.

Type CPSA guards against compressor short-cycling, aims to maintain total running hours for the compressors equal throughout the lifetime of the pack and **monitors fault conditions** on each compressor.

Type CPSA is specifically for 2 stage screw compressors and includes oil temperature and level control facilities.

Up to 6 defrosts per day can be achieved on each of the refrigeration systems associated with the pack by setting a schedule of defrost start times, defrost durations and defrost patterns.

**Compressors, condensers** and **defrosts** are controlled and monitored by connecting JTL compressor plant interface units to CPSA (see separate sheet IFx-x for details).

Suction and discharge pressures together with simple alarm messages are indicated locally on the display. Type CPSA provides comprehensive **alarm reporting, data-logging**, remote data access and remote control of defrosts at JTL refrigeration controllers when connected to a JTL Network controller.

The CPSA can be used with off cycle, electric 2, 3 pipe or ring main gas defrost systems.

## FEATURES

- ◆ Controls up to 4 compressors (up to 2 steps per compressor)
- ◆ Unequal capacity compressor control
- ◆ Short cycle prevention
- ◆ Balanced running hours
- ◆ Controlled start up
- ◆ Controls up to 7 steps of condensing (12 with bank switching)
- ◆ Variable fan speed control
- ◆ Controls up to 20 defrost systems
- ◆ 6 defrosts a day/system
- ◆ JTL plant interface communication system
- ◆ Pressure and temperature measurement inputs
- ◆ JTL Network communications
- ◆ Watchdog to ensure reliable operation
- ◆ Non-volatile set-up memory
- ◆ 4 four digit LED displays
- ◆ Battery supported datalogging
- ◆ Battery supported real time clock
- ◆ Maintenance Unit socket



## HARDWARE

- ◆ Pressure transducer inputs ..... 2
- ◆ Temperature sensor inputs ..... 4
- ◆ Temperature sensor types supported ..... JTL
- ◆ Pressure display drives ..... 2
- ◆ Optically isolated high voltage inputs ..... 2 (240V max)
- ◆ Data-logging memory capacity ..... 1000 points on 2 channels

## TECHNICAL SPECIFICATION

Pressure input 1 .....	Suction pressure
Pressure input 2 .....	Discharge pressure
Temperature input 1 .....	Suction gas temperature
Temperature input 2 .....	Discharge gas temperature
Temperature input 3 .....	Saturated gas temperature
Temperature input 4 .....	Oil temperature
Output 1 .....	Liquid pressure differential valve control or gas dump valve (selectable)
Output 2 .....	Saturated gas temperature regulator
Relay output rating .....	2A resistive (240 V max.)
Communications port .....	RS485 2 wire
Communications data rate .....	600/4800 baud (auto selected)
Communications protocol .....	JTL zone protocol
Input 1 .....	Auto/manual control switch
Input 2 .....	Low liquid level
Dimensions .....	347 x 456 x 86 mm
Weight .....	6 kg
Power supply (standard) .....	230 V 48-62 Hz
(optional) .....	110 V

## ORDERING INFORMATION

CPSA-BD ..... Complete unit in enclosure with display

### Power Supply Options:

For 110 V append - 110 to order code



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

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