

***F Series***  
**DIGITAL CONTROLLERS**



# F Series Digital Controllers

A new quality range of low-cost microprocessor controlled digital panel instruments designed for a wide variety of applications within the refrigeration, H&V and air conditioning industries. A unique step-by-step menu system makes setting up quick and easy — all control parameters being accessible via the front panel. Programmed data is verified before storage in the units internal memory — safe from mains spikes and power failures. An internal switch can be set to prevent unauthorised tampering of control settings. Manufactured using the latest surface-mount technology, the F Series of controllers is a significant advance in size and reliability. All units are housed in a black ABS case with scratch-proof polycarbonate front panel, and connections are made to a rising clamp terminals for simple installation.



**F200T**  
Digital Thermometer

Measures and displays temperature for any heating or cooling application. Range:  $-50^{\circ}$  to  $+99^{\circ}\text{C}$ . Complete with a remote temperature probe and 1.5 metre cable, easily extended up to 100 metres.



**F210T**  
Single Stage Thermostat  
with Temperature Readout

Provides accurate temperature regulation of heating or cooling installations within the range:  $-50^{\circ}$  to  $+99^{\circ}\text{C}$ . Maximum and minimum setpoints within the range can be preset and locked. The differential can be set to between  $1^{\circ}$  and  $10^{\circ}\text{C}$ . An anti-shortcycle timer is included, which can be set from 0 to 10 minutes.



**F220T**  
Two Stage Thermostat with  
Temperature Readout

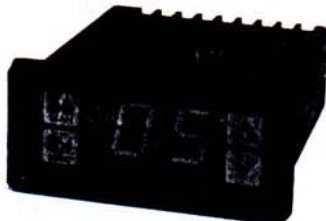
Designed for applications requiring two stages of control over regulated temperature within the range:  $-50^{\circ}$  to  $+99^{\circ}\text{C}$ . The menu system provides access to all control parameters, enabling the user to configure the system for: 2 stages of heating, 2 stages of cooling or a single stage of both heating and cooling. Other features include: presetable max. and min. setpoints, programmable anti-shortcycle timer, front panel calibration and non-volatile memory.

- All settings and adjustments made from front panel
- Presets automatically stored in memory
- Security switch prevents unauthorised tampering
- Simple set-up using control menu system
- 'Professional' quality terminals for reliability
- Surface-mount electronics for consistently reliable operation



**F210A**  
Digital Temperature Alarm

Warns against temperature drift in critical heating and cooling applications, within the range  $-50^{\circ}$  to  $+99^{\circ}\text{C}$ . Upper and lower temperature limits are programmable. An isolated relay output has a built-in delay time, selectable from 1 to 90 minutes. All parameters are accessed via the step-by-step menu system and stored in the units memory.



**F210TD / F220TD**  
Defrost Controller

Designed for cooling applications to maintain an efficient plant by control of defrost cycles and temperature control. Exceptional value, the controller has digital temperature readout with control between  $-50^{\circ}$  and  $+99^{\circ}\text{C}$ . Limits can be preset for operation over a small temperature span. Switching differential is adjustable from  $1^{\circ}$  to  $10^{\circ}\text{C}$  with an off-cycle timer settable from 1 to 10 min. to prevent short cycling. The defrost timer is time initiated/time terminated; interval between defrosts settable to 1–24 hr; defrost duration settable 1–30 min. Manual defrost override can be initiated at anytime. Probe faults can be programmed to switch the compressor either permanently on or off. An optional model F220TD provides an additional relay to give control over the type of defrost required, hot gas, electric or natural.

## TECHNICAL SPECIFICATION

Measurement range: (temperature)	$-50^{\circ}$ to $+99^{\circ}\text{C}$
Accuracy: (temperature)	$\pm 0.5^{\circ}\text{C}$ @ range centre
Digital display	2 digit 13 mm LED
Resolution	$1^{\circ}\text{C}$
Sensor: (temperature)	PTC1000 (EDC type ET8-1500)
(humidity)	EDC type EH8-1500
Power consumption	2 VA max
Relay type	SPDT, 250 V 8A resistive
Connections	Rising clamp terminal block
Wire acceptance	$3.5\text{ mm}^2$
Dimensions	$62 \times 30 \times 66\text{ mm}$
Panel cut out	$58 \times 26\text{ mm}$
Operating temperature	$0^{\circ}$ to $60^{\circ}\text{C}$
Storage temperature	$-30^{\circ}$ to $80^{\circ}\text{C}$



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