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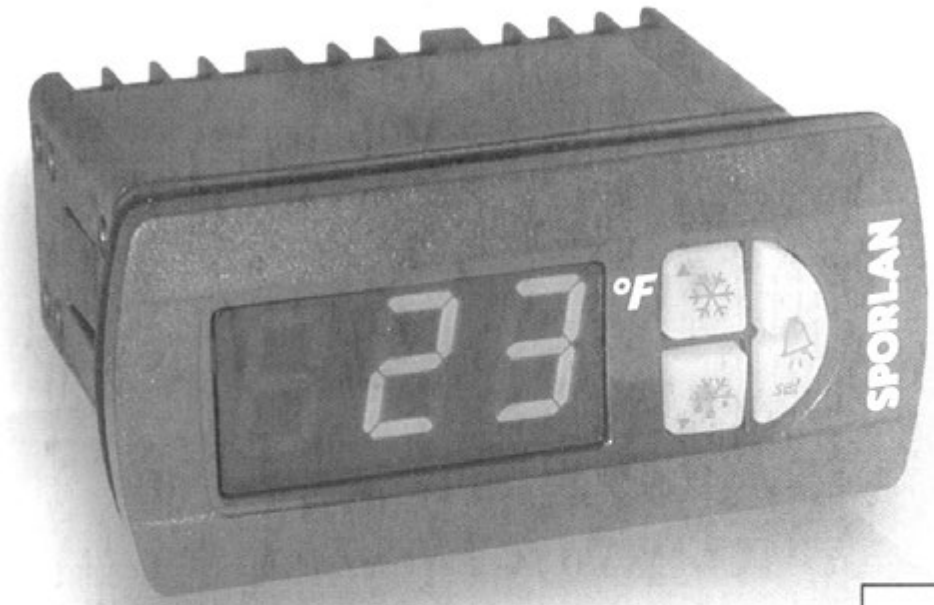


PROGRAMMING KEY

OMNI STAT®

Temperature and Defrost Controller with Digital Display

Ideally suited for self-contained food service equipment, the OmniStat controller consolidates several system control functions and provides a visible display of the operating temperature. The OmniStat is a small package loaded with features:

All control parameters are either programmed with the front mounted backlit push buttons or an optional programming key. The programming key is convenient and efficient for programming multiple controllers with the same setting in the field or on the manufacturing floor.

The front push buttons are also utilized to manually initiate a defrost, silence an alarm, or start the compressor.

Low temperature OmniStat models feature relays for fans, defrost heaters, and the compressor.

The low temperature controllers also provide an added temperature probe connection to accommodate temperature defrost termination along with time termination.

All OmniStat controllers have the ability to supply HACCP data to an external recording module.

SPECIFICATIONS

ITEM NUMBER	MODEL	OUTPUTS			INPUTS			PLUS				
		COMPRESSOR	DEFROST	FANS	TEMPERATURE	*OTHER	DEFROST TERM TEMP	HACCP OUTPUT	PROGRAMMING KEY	QUICK MOUNTING	BACKLIT KEYPAD	REMOVABLE TERMINALS
952889	**OmniStat** Low Temperature, 120 Volt AC	6A (2FLA)	5 Amp	1FLA	X		X	X	X	X	X	X
952908	**OmniStat** Low Temperature, 230 Volt AC	6A (2FLA)	5 Amp	1FLA	X		X	X	X	X	X	X
952895	**OmniStat** Medium Temperature, 120 Volt AC	1/3Hp			X	DB		X	X	X	X	X
952910	**OmniStat** Medium Temperature, 230 Volt AC	3/4Hp			X	DB		X	X	X	X	X
952896	**OmniStat** Medium Temperature, 120 Volt AC 1HP	1Hp			X	PR		X	X	X	X	X
952911	**OmniStat** Medium Temperature, 230 Volt AC 2HP	2Hp			X	PR		X	X	X	X	X
952891	**OmniStat/MultiStat** Programming Key											
952898	Temperature Probe 10 ft., Stripped Ends											
952899	Temperature Probe 5 ft., Stripped Ends											

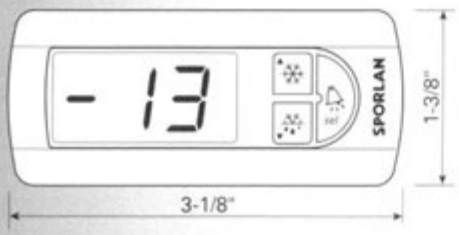
*DI is a digital input for external defrost switch or night setback, PR is an additional product temperature probe

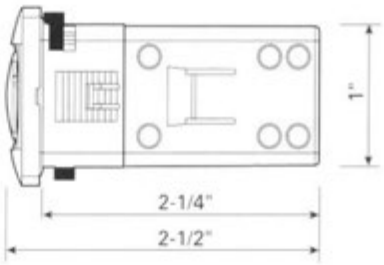
Ordering Instructions: all items are sold separately. Components for a low temperature installation with time/temperature defrost and 120 volt supply would consist of :

1 each 952889 OmniStat low temperature, 120 volt

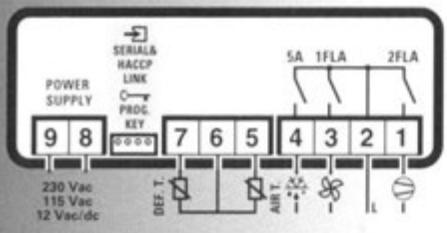
2 each 952898 Temperature Probes (assuming 10 foot length is required)

DIMENSIONS





WIRING DIAGRAM - LOW TEMPERATURE



952889-120VAC
952908-230VAC

APPLICATION NOTES:

1. Relays may control voltages different from the controller supply voltage, e.g. OmniStat 952895 is powered by 120 volt but may be used to control a 230 volt AC 2 hp. compressor.

2. Compressor relay may be used to control a liquid line solenoid in applications where the compressor is cycled with a pressure control.

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15-503

TECHNICAL SPECIFICATIONS

power supply (*)	12Vac +10/-15% 50/60Hz; 12Vdc from 11 to 16Vdc 230Vac +10/-15% 50/60Hz ; 115Vac +10/-15% 50/60Hz		
power consumption	3VA		
inputs (*)	NTC or PTC probes, 1 or 2 inputs. Digital input: alternative to the second probe		
Relay output s(*)	voltage max. 250 Vac, current depending on the models:		
2FLA relay model		UL: 8A Res. 2FLA 12LRA	EN60730-1: 6(2)A
5FLA relay model		UL: 12A Res. 5FLA 30LRA	EN60730-1: 12(2)A
1FLA relay model		UL: 5A Res. 1FLA 6LRA	EN60730-1: 5(1)A
defrost command with relay 12FLA		UL: 14A Res. (6,000 cycles)/ 12A Res. (30,000 cycles)	EN60730-1: 14(2)A
fan command with relay 2FLA		UL: 2A Res. 2FLA 12LRA	EN60730-1: 2(2)A
Compressor 12FLA Model		UL: 12A Res. 12FLA 72LRA**	EN60730-1: 10(10)A
probe type (*)	Sporlan NTC 10K Ω at 25°C, Sporlan PTC 985 Ω at 0°C		
connections (*)	fixed screw terminals for cables with 14 AWG max. and 24 AWG min. section. Plug-in terminals for screw or clamp connectors (max 10 AWG) Maximum nominal current for each terminal 12A. Max. current on spade connection 16A. On the three power supply terminals with screws 30A each		
mounting (*)	terminal: by means of screws on the front panel or bracket on the back. interface: wall mounting through screws with 4, 101x151mm centers		
display	LED display 2 1/2 digits and sign -99÷199, three status LEDs.		
operating conditions	10 to 120°F - humidity <90% rH not condensing.		
storage conditions	-5 to 160°F - humidity <90% rH not condensing.		
range of measurement	from -50 to +127°F - resolution 1°F		
front panel - index of protection:	front panel mounting with gasket inserted: IP65 (o-ring IP54)		
relay board enclosure	8x6x4 Inches		
classification for electric shock	Class II for appropriate installation		
environmental pollution	normal		
PTI of insulating materials	250V		
period of electrical stress of the insulating parts	long		
categ. of resist. to heat and fire	D (UL94 - V0)		
immunity against voltage surges	Category 1		
action type of the device	relay contact 1C		
No. of automatic operating cycles relay (*)	EN60730-1: 6(2)A, 2(2)A, 5(1)A and 10(10)A: 100,000, 14(2)A: 30,000 UL: (250Vac) 30,000 operations		
software class and structure:	class A		
cleaning the instrument	Use only neutral detergents and water		

WARNING: keep line voltage cables at least 1/8" away from probe wiring.
(*) All the characteristics are different according to the model.

** Compressor relay ratings based on 1 minute minimum off time.

Thank you for your choice. We trust you will be satisfied with your purchase.

SAFETY STANDARD: in compliance with the European laws.

Installation precautions:

- **the connection cables should be suitable for up to 195°F operation;**

Caution: Low voltage and probe wiring must be properly separated from high voltage wiring

DISPLAY

During normal working conditions, the display shows the value measured by the air regulation probe or by the second probe (parameter /4). In case of active alarm, the temperature flashes alternately to the code alarm.

ALARMS AND SIGNALS

Alarm code	Description
E0	fault air regulation probe
E1	evaporator product/food probe fault digital input alarm
IA	immediate external alarm (A4 and A7 parameters)
LO	low temperature alarm (AL, Ad and A0 parameters)
HI	high temperature alarm (AH, Ad and A0 parameters)
EE	data acquisition failure (see the manual for the default procedure)
Ed	timeout-ended defrost (dt, dP and r3 parameters)
dF	defrost in progress

OPERATING INDICATIONS ON THE DISPLAY

- LED Button indicates compressor ON;
- LED Button indicates defrosting ON;
- LED Button indicates presence of alarms.

The blinking indicates that controller is waiting for a time delay to expire.

SET-POINT (desired temperature value)

- Press the SET button for one second to display the Set-Point value;
- After few seconds, the set value blinks;
- Press UP or DOWN to increase or decrease the set-point value; press the button once/more to confirm the new value.

MANUAL DEFROST

Besides the automatic defrost; it is possible to activate a manual defrost by pressing the button for more than 5 seconds (it occurs only in the appropriate temperature conditions).

ACCESS AND MODIFICATION OF THE FREQUENT PARAMETERS (F TYPE)

1) Press the button for more than 5 seconds (in case of alarm, first silence the buzzer);
2) the display displays PS;
3) Press or to show the parameter whose value has to be changed; press to display the associated value;
4) Press or to change the value;
5) Press to temporarily confirm the new value and go back to display the parameter code; In order to modify the other parameters, start back from point 3.

Storage of the new values: press at least for 5 seconds to store the new value and exit the "PARAMETERS MODIFICATION" procedure. For timing parameters only: switch off and switch on the controller in order to make them immediately effective without waiting for the following cycle. **To exit without modifying any parameter:** do not press any button for at least 60 seconds (TIME OUT).

LIST OF PARAMETERS TYPE F

	Parameter	Type	Min	Max	Unit	Default	Value*
PS	PASSWORD	F	00	199	-	22	
/	PROBE PARAMETERS						
/C	ambient probe calibration(x 0.1°C/°F)	F	-127	127	°C/°F	0.0	
r	REGULATOR PARAMETERS						
rd	Regulating differential (hysteresis 0=0.5°C/°F)	F	0	19	°C/°F	2	
d	DEFROST PARAMETERS						
dI	Time interval between two defrost cycles	F	0	199	hours	8	
dt	End defrost temperature	F	-50	127	°C/°F	4	
dP	Max defrost duration or effective duration if d0=2 or 3	F	1	199	min	30	
dd	Dripping time after defrost	F	0	15	min	2	
dA	Alarm delay after defrost	F	0	15	hours	1	
dr	Temperature defrost probe display	F	-	-	°C/°F	-	
A	ALARM PARAMETERS						
AL	Low temperature alarm (max. variation as to the Set-Point). AL=0 excluded Low temperature alarm	F	0	127	°C/°F	0	
AH	High temperature alarm (max. variation as to the Set-Point). AH=0 excluded High temperature alarm	F	0	127	°C/°F	0	
F	FAN PARAMETERS						
F1	Fan power on temperature	F	-50	127	°C/°F	5	
Fd	Stop after dripping ON for each F1 value	F	0	15	min	1	
H	OTHER SELECTIONS						
1	External parameter programming	F	-99	199	-	-	
H6	Identification code for programming key (programmed by supervisor)	C	-99	99	-	0	

ACCESS AND MODIFICATION OF THE CONFIGURATION PARAMETERS (C TYPE)

Configuration parameters (type C in the table): a PASSWORD is required to enter.

1) Press for more than 5 seconds, after the set-point, PS will be displayed;
2) Press , then using or select 22 value (PASSWORD); press to confirm;
3) Press or to show the parameter that has to be changed; press to display the associated value;
4) Press or to change the value;
5) Press to temporarily confirm the new value and go back to the parameter code display;

Storage of the new values: press at least for 5 seconds to store the new value and exit the "PARAMETERS MODIFICATION" procedure. For timing parameters only: switch off and switch on the controller in order to make them immediately effective without waiting for the following cycle. **To exit without modifying any parameter:** do not press any button for at least 60 seconds (TIME OUT).

LIST OF PARAMETERS TYPE C

	Parameter	Type	Min	Max	Unit	Default	Value*
/	PROBE PARAMETERS						
/2	Measurement stability	C	1	15	-	4	
/4	probe display: 0 = regulation probe, 1 = product food probe (second probe)	C	0	1	flag	0	
/5	°C /°F (0=°C, 1=°F)	C	0	1	flag	0	
r	REGULATOR PARAMETERS						
r1	Minimum allowable set	C	-50	r2	°C/°F	-50	
r2	Maximum allowable set	C	r1	127	°C/°F	60	
r3	Enabling Ed alarm: max duration of defrost is reached (0=no, 1=yes)	C	0	1	flag	0	
r4	Automatic variation of the Set-Point with closed curtain-switch (A4=4)	C	-20	20	°C/°F	3	NU*
c	COMPRESSOR PARAMETERS						
c0	Delay in the compressor start-up after switch-on	C	0	15	min	0	
c1	Minimum time between two following compressor start-ups	C	0	15	min	0	
c2	Compressor shutdown minimum time	C	0	15	min	0	
c3	Compressor operation minimum time	C	0	15	min	0	
c4	Safety compressor (0=OFF, 100=ON)	C	0	100	min	0	
cc	Continuous cycle duration	C	0	15	hours	4	
c6	Alarm delay after continuous cycle	C	0	15	hours	2	
d	DEFROST PARAMETERS						
d0	defrost type (0=heater, 1=hot gas, 2= time resistance, 3= time hot gas)	C	0	3	flag	0	
d4	Defrost after start-up (0=no, 1=yes)	C	0	1	flag	0	
d5	Delay defrost after control Switch-On or from digital input (A4 or A5=4)	C	0	199	min	0	
d6	Block temperature display during defrost (0=no, 1=yes)	C	0	1	flag	1	
d9	defrost priority over compressor protection (0=no, 1=yes)	C	0	1	flag	0	
dC	Time base (0=hours/min, 1=min/s) Only for dI and dP	C	0	1	flag	0	
A	ALARM PARAMETERS						
A0	Alarms and fans differential (0=0.5 °C/°F)	C	0	19	°C/°F	0	
Ad	Temperature alarm delay	C	0	199	min	0	
A7	Measurement delay time for the input "delayed alarm" (A4 or A5=2)	C	0	199	min	0	NU*
F	FAN PARAMETERS						
F0	Management of fans: 0=fans ON, specific phases excluded (F2, F3 and Fd) 1=fans ON (dependent on parameter F1) specific phases excluded	C	0	1	flag	0	
F2	Fans OFF when the compressor is OFF (0=no, 1=yes)	C	0	1	flag	1	
F3	Fans OFF during defrost (0=no,1=yes)	C	0	1	flag	1	
H	OTHER SELECTIONS						
H0	Serial address	C	0	199	-	1	
H1	Selection of the alarm relay operation: 0=alarm ON, energized relay, 1= alarm ON, disenergized relay.	C	0	1	flag	1	
H2	0=disabled buttons; 1=enabled buttons	C	0	1	flag	1	

* show the set value

NU*: not used parameter, leave the default value

Please contact Sporlan Valve Company for further information. www.sporlan.com

Display Dimensions (mm)

READ AND SAVE THESE INSTRUCTIONS

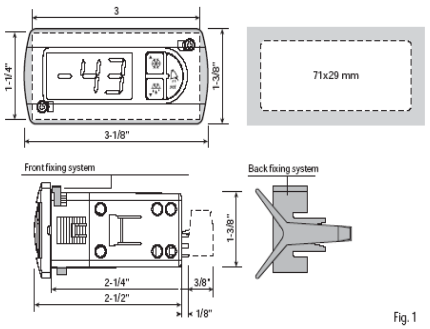
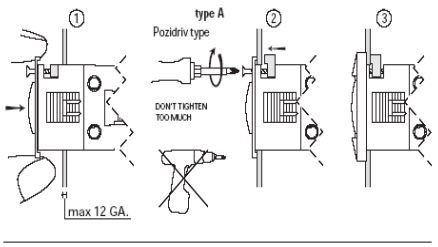


Fig. 1

Panel Mounting



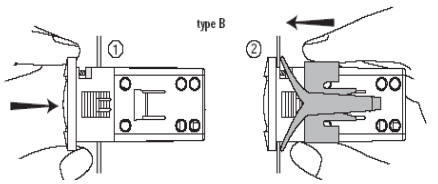


Fig. 2

Wiring Diagram - OmniStat - Medium Temperature

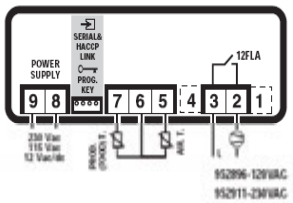


Fig. 4

Wiring Diagram - OmniStat - Low Temperature

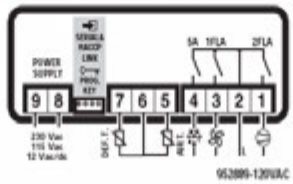


Fig. 5

Wiring Diagram - OmniStat Plus

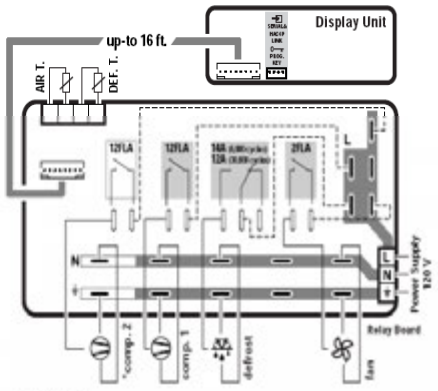


Fig. 3

--------- Field Wiring

Warning: Maintain proper separation between high voltage and low voltage wiring.

* Special order only