



# INSTALLATION DATA

## 5225 SERIES

### REMOTE BULB LIMIT CONTROLLER

The Robertshaw® 5225 Remote Bulb Limit Controllers are fixed temperature limit controls with special hydraulic sensing elements. This sensing element is designed to activate the controller if a fluid loss should occur in the hydraulic element. The controller will then react the same as if a high limit condition existed. Individual models are available for either automatic (cycling) or manual reset applications.

#### ELECTRIC OR GAS FRYER APPLICATIONS REQUIRING MANUAL RESET

Manual reset models have SPST switch action. If temperature exceeds fixed setting, the contacts will open. Reset button is a trip-free design, and contacts cannot be latched closed by depressing reset button as long as over-temperature condition exists.

Temperature must drop approximately 50°F below fixed setting before contacts will reset. Contacts on cycling models will reset automatically. Manual reset models require the reset button to be depressed before contacts will close.

#### GAS FRYER APPLICATIONS REQUIRING AUTOMATIC RESET

Automatic reset or cycling models have SPDT switch action. If temperature exceeds fixed setting, N.C. contacts will open to provide a shut down circuit. N.O. contacts will close and permit use of an alarm system to signal the condition.

#### ELECTRICAL RATINGS

##### Model LCH - Manual Reset

Switch action - SPST

30 Amps (resistive load) at 125, 250 or 480V AC

##### Model LCC - Automatic Reset

Switch Action - SPDT

25 Amps (resistive load) at 125, 250 or 480V AC

125 VA Pilot Duty at 125, 250V AC

#### 5225 MANUAL RESET MODELS (LCH)

UNI-LINE® NUMBER	TEMPERATURE RANGE (FIXED)	BULB O.D. & LENGTH	CAPILLARY LENGTH	COMMENTS		
5225-201	360°F	5/16" x 3-5/8"	36"	Has 3/8" Stuffing Box		
5225-006* UNI-KIT	425°F	5/16" x 4" Nickel	60"	Includes Case		
5225-106* UNI-KIT						
5225-105	440°F	1/4" x 4-7/8" Nickel	24"			
5225-002	450°F	5/16" x 4" Nickel	60"	Includes Case		
5225-102						
5225-202				1/4" x 6-1/2" Nickel	30"	
5225-001* UNI-KIT						Includes Case
5225-101* UNI-KIT		5/16" x 4" Nickel	60"			
5225-005	490°F	1/4" x 6-1/2" Nickel	30"			

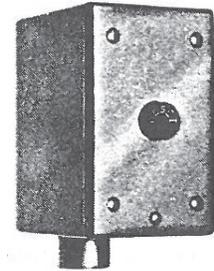
#### 5225 AUTOMATIC RESET MODELS (LCC)

5225-007* UNI-KIT	425°F	5/16" x 4" Nickel	60"	Includes Case	
5225-107* UNI-KIT					
5225-004	450°F	5/16" x 4" Nickel	60"	Includes Case	
5225-104					
5225-003* UNI-KIT					Includes Case
5225-103* UNI-KIT					

\*Uni-Kit includes 30" wire leads and a 1922 adaptor for gas applications.

#### MODEL LCH - MANUAL RESET

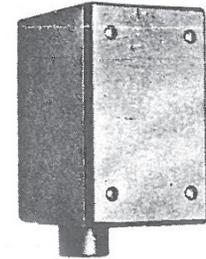
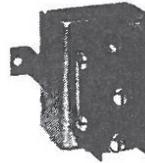
Without Case



With Case

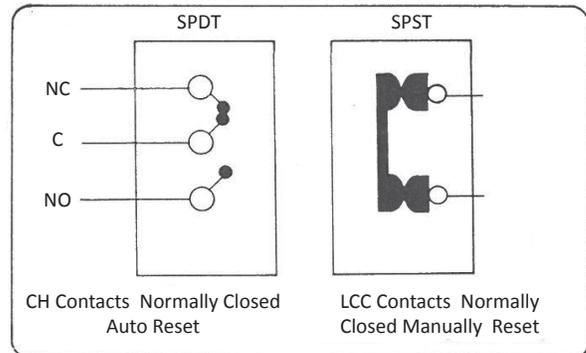
#### MODEL LCC - AUTOMATIC RESET

Without Case



With Case

#### WIRING - CONTACT ACTION





#### CAUTION

THIS DEVICE SHOULD BE INSTALLED BY A QUALIFIED SERVICE TECHNICIAN WITH DUE REGARD FOR SAFETY AS IMPROPER INSTALLATION COULD RESULT IN A HAZARDOUS CONDITION.

EACH APPLICATION SHOULD BE EVALUATED BY A COMMERCIAL SERVICEMAN BEFORE ATTEMPTING AN INSTALLATION. SELECT THE CORRECT MODEL TO SUIT THE APPLICATION. MOUNT CONTROL IN AN AREA THAT WILL NOT EXCEED 150°F.

### ELECTRIC OR GAS FRYER APPLICATIONS REQUIRING MANUAL RESET

**Model LCH** is ideal for gas or electric fryers. Control has manual reset and SPST switch action. Reset Button is a trip-free design and contacts will reset only when the button is released after being depressed. Should the temperature exceed the fixed setting, contacts will open. Temperature must drop approximately 50° before depressing reset button to return the contacts to the latched closed position.

**NOTE:** The LCH manual reset type is the recommended model to use for electrical applications as it requires the reset button to be depressed after an over temperature condition, letting the operator know there is an overheat problem.

With electric elements, the Limit Control is wired in series with the operating temperature thermostat. The Limit Control usually cannot carry the load circuit (see electrical rating); therefore, it must be wired in the solenoid coil side of the contactor circuit.

### BULB LOCATION AND MOUNTING

**CAUTION:** Exposing the bulb to temperatures above 575°F will destroy the diastat and voids the warranty.

Bulb location - next to the fryer thermostat bulb. A few short pieces of stainless or nickel wire could be used to strap bulbs together.

Bulb and capillary may be installed by having capillary over top edge of the tank or install a new opening through the side of the tank.

Should a new opening in the side of the tank be desired, care must be used to have a good fit. The 4650-003 Stuffing Box and Tank Adaptor Kit is available to ease the problem of sealing a new opening.

### GAS FRYER APPLICATIONS REQUIRING AUTOMATIC RESET

**Model LCC** is automatic reset or cycling type (no reset button) with SPDT switch action. If temperature exceeds fixed setting, N.C. contacts will open. The N.O. contacts would, in turn, close and could be used to signal the over temperature condition if desired. Temperature must drop approximately 25° before contacts will reset.

**NOTE:** The LCC automatic reset type is the recommended model to use for gas applications as the electromagnet in the system will have a reset button.

Install the 1922 Adaptor between the electromagnet and the thermocouple.

Using a low-resistance wire, connect the spade ends to the 1922 Adaptor and the other ends to the N.C. terminals on the Limit Control.

### BULB LOCATION AND MOUNTING

**CAUTION:** Exposing the bulb to temperatures above 575°F will destroy the diastat and voids the warranty.

Bulb location - next to the fryer thermostat bulb. A few short pieces of stainless or nickel wire could be used to strap bulbs together.

Bulb and capillary may be installed by having capillary over top edge of the tank or install a new opening through the side of the tank.

Should the new opening in the side of the tank be desired, care must be used to have a good fit. The 4650-003 Stuffing Box and Tank Adaptor Kit is available to ease the problem of sealing a new opening.

*Robertshaw*

Customer Service Telephone 1.800.304.6563  
Customer Service Facsimile 1.800.426.0804  
HVACCustomerService@robertshaw.com

For Technical Service  
Telephone 1.800.445.8299  
TechnicalService@robertshaw.com

Robertshaw®, Ranco® and Paragon® are trademarks of Robertshaw, its subsidiaries and/or affiliated companies. All other brands mentioned may be the trademarks of their respective owners.

www.robertshaw.com  
©2024 Robertshaw  
04/24 -1-166 RevE