

LFE18 IMPULSE-TYPE MODULATING CONTROL

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**BASIC LFE18
2 RPM 8% 220/60 MODEL**

ACCESSORIES

Description	Code
None	0
201 Weather Resistant (requires inverted scale)	1

HOW TO ORDER

First select the proper ordering number for the LFE18 unit. Next consult element selection matrix, see Page 62. Select dial part number, see page 65, and specify as a separate line item. The dial selected must correspond to specific range of sensing element selected. The LFE18 instrument requires a hollow (L-Type) element plunger (code 51 or 52). High ambient temperature head assembly (code 51) is used when the instrument will be located in ambient temperatures between 32°F but not greater than 150°F. Low ambient head assembly should be called out (code 52) when the instrument will be located in ambient temperatures between -30°F and 125°F. If the solution the sensing bulb is being immersed in is of a corrosive nature, see Form 3052, "Guide for use in Corrosive Applications".

Sample Order:

Description	Required Number
LFE18 Unit	LF070
with Dial	00601739 (from page 65)
with element	109510520 (from page 62 and 63)

For pricing see Form 3028, Mechanical Price Book, page 11.

ABOUT THIS INSTRUMENT

Indicating
Controls

Description

Electric modulating impulse-type controller designed to provide straight line control of electric heaters. Change in electrical input is automatically proportioned by a change in temperature within the modulating range. This anticipatory characteristic of the instrument reduces heat input as process temperature approaches set point, eliminating the over and under shoot of conventional on-off control of electric heaters. UL and CSA listed. Flush or wall mount. Twelve optional ranges within -30°F to 1100°F.

Operation

Control point is set by turning the setting knob until red set pointer, which moves with the knob, is positioned at desired temperature on the scale.

The indicating pointer moves up or down scale in response to the expansion or contraction in the thermal sensing element. A stiff leaf snap-acting switch, mounted on the pointer assembly, is actuated by a constantly-turning cam mounted on the set pointer assembly.

The rotating cam contacts the switch at the start of the modulating range. Contacts are actuated for longer and longer periods as temperature continues to rise, each contact breaking the control circuit and interrupting the heating as set point is approached. When the precise proportion of circuit cycle is attained, the balance of heat input and process requirements is maintained.

Specifications

Dimensions	8 5/8" W x 8"H x 4 9/32" D
Flush Mount Cutout	7" W x 7 3/4" H
Surface Mounting	Mounting brackets included.
Switch Type	#18A, SPDT, stiff leaf. Only the normally closed and common terminals are used for control circuit.
Cam Motor	2 rpm (for other speeds, consult factory)
Electrical Hookup	Terminal block accessible through top cover hatch.
Conduit Openings	1/2 inch NPS holes on each side of the case for 1/2 inch conduit fitting; drill guide hole spotted in the rear of the case showing optional rear opening location.
Electrical Rating	50VA inductive, 500VA non-inductive; AC only.
Rated Accuracy	± 1% of element range.
Agency Listings	UL and CSA.
Warranty	One year, see page 80 for details.
Approx. Net Weight*	7 lbs.
Approx Ship. Weight*	10 lbs.

*Weight may vary depending on element length.

