

# RFP MODULATING TEMPERATURE RECORDER

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## BASIC RFP MODEL

The potentiometer coil kits listed below are available. They must be ordered separately and installed in the field.

Description	Part #
100 Ohm 1/8"	64403504
100 Ohm 5/16"	64403505
135 Ohm 1/8"	64403501

## CHART DRIVES (Counter Clockwise Rotation)

Description		Code
125V/60Hz	24 H	01
125V/60Hz	7 D	02
125V/60Hz	12 H	03
125V/60Hz	48 H	04
125V/50Hz	24 H	05
125V/50Hz	7 D	06
Spring wound	24 H	07
Spring wound	7 D	08
250V/50Hz	24 H	09
250V/50Hz	7 D	10
250V/60Hz	24 H	11

## ACCESSORIES

Description	Code
None	0
Pressure Sensitive Marking Sys.	3

## HOW TO ORDER

First select the proper ordering number for the RFP unit. Next consult element selection matrix, see Page 62. Select chart number, see page 70 and 71, and specify as a separate line item. The chart selected must correspond to specific range of sensing element selected. The RFP 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".

**Note: Availability of charts will limit element selection.**

### Sample Order:

Description	Required Number
RFP Unit	RF04010
with charts	00208004 (from page 71)
with element	109510520 (from page 62 and 63)

For pricing see Form 3028, Mechanical Price Book, page 12.

# ABOUT THIS INSTRUMENT

## Description

This recorder is a potentiometer-type controller designed for use with proportional positioning motors to operate modulating valves or damper systems where extremely close sensitivity or straight-line control is required.

The instrument automatically positions any of a variety of standard motor operators to provide precise temperature control without sawtooth line characteristics of conventional on-off control. Flush or wall mounted, brackets supplied. Available in 12 optional ranges from -30°F to 1100°F. CSA listed.

## Operation

The potentiometer coil, which moves up or down scale in response to the expansion or contraction in the thermal element, also slides the contact finger along the potentiometer coil within the modulating range.

In essence, the coil forms half of a Wheatstone Bridge circuit, while the other half of the bridge is formed by a potentiometer of similar electrical characteristics built into the proportioning motor and driven by the motor shaft.

When the contact finger is located at the low end of the potentiometer coil as in process start-up, the motor drives the device to the fully open position.

With the contact finger at the high end of the coil, the motor moves the drive to the fully closed position.

## Specifications

Dimensions	15 1/8" W x 13 3/16"H x 4 7/8" D		
Chart Diameter	10 inch.		
Chart Marking	Felt Tip Cartridge/optional pressure sensitive charts		
Chart Drive	Electric with toggle switch, or spring wound.		
Chart Rotation Periods	24 and 48 hour, 7 day, other options.		
Flush Mount Cutout	13 1/2" W x 12 11/16" H		
Surface Mounting	Mounting brackets included.		
Electrical Hookup	Terminal block accessible with hinged cover open.		
Conduit Openings	One 7/8 inch diameter hole 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.		
Coil Resistance	135 ohms 5/16" width std; others available as field installable kits.		
Electrical Rating	Max. volts - 30; max. watts - 3.		
Coil Length, Throttling Range Available	5/16" 12%	1/8" 5%	5/8" 24%
Rated Accuracy	1% of element range.		
Agency Listing	CSA		
Warranty	One year, see page 80 for details.		
Approx. Net Weight*	12 lbs.		
Approx Ship. Weight*	17 lbs.		

\*Weight may vary depending on element length.

