

Title: DISCRETE OUTPUT DEVICE FOR 32MP SENSORS

Number: C8813

Date: 9/26/88

Models Affected: ALL 17 & 19 SERIES CHILLERS

Supersedes: new

Date:

PURPOSE

The purpose of this bulletin is to provide information on the use of a discrete on/off output device in conjunction with 32MP thermister temperature sensors for interfacing with 32SM and earlier version controls.

BACKGROUND

The 32MP microprocessor control uses NTC thermister temperature sensors for all temperature control and protection functions. This includes motor temperature, bearing temperature and discharge temperature. If it is desired to use a new style motor or compressor having thermister sensors in conjunction with an old style control system which requires a discrete on/off safety input, a temperature control module may be used as an interface.

CONTROL MODULE

The recommended control modules have a simple solid state circuit which takes the standard 32MP sensor resistance as an input and actuates a relay output at a preset temperature of 220 F, (318 Ohms). The trip point is preset at the factory. A separate module is required for each thermister sensor. The module requires input power at 120/240 V +/- 15%, 50/60 Hz.

INSTALLATION

The control modules are approximately 3.25 W x 6.0 L x 2.5 H. The control boards are mounted in a snap-track which can be mounted with two screws to any flat surface. Electrical connections are by means of screw terminals (Athena) or 1/4 inch quick-connects (Fenwal). The Fenwal module has a single pole, single throw output relay. The Athena module has a single pole, double throw output relay, use the common and NO contacts.

If two sensors to be monitored have a common lead, it is permissible to connect the common to both modules.

FILE KEY

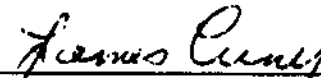
MAIL KEYS: 2.23R, 2.33B&D, 2.40B, 2.44, 2.45, 2.46A&B, 2.53, 5.14A&B

Prepared By:



Lee Mount

Approved By:



James Cuny

ORDERING INFORMATION

Control modules are not available from Carrier. They are a standard offering from two manufacturers and have been checked out for correct operation and compatability with Carrier controls.

ATHENA CONTROLS, INC. PART NUMBER: 83AB-124 (318 OHMS)

ORDER FROM: Thermal Systems of Syracuse, Inc.
5858 E. Molloy Road
Mattydale, NY 13221
Phone (315) 455-5544

FENWAL INCORPORATED PART NUMBER: 19-524005-701

ORDER FROM: Fenwal Incorporated
400 Main Street
Ashland, MA 01721
Phone (617) 881-2000

Fenwal also has agents in many states and countries.

