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File E63614
Project 96SC13469

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REPORT

ON

COMPONENT - MOTOR CONTROLLERS, MAGNETIC

Fujitsu Takamisawa Component Ltd.
Tokyo, Japan

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D E S C R I P T I O NPRODUCT COVERED:

* Component - Magnetic Motor Controllers, Type F1, with or without prefix FTR -, followed by C or A, followed by A or D, followed by 005 through 110, followed by V or T, may or may not be followed by -01 through -99.

GENERAL:

These devices are double-pole double throw magnetically operated switches with DC operating coil and with normally open and normally closed contacts. Some of these devices have double-pole single throw contacts arrangement with normally open contact. These devices are provided with terminals for direct printed circuit mounting.

This component is intended for use in industrial applications and/or temperature-indicating and-regulating applications.

NOMENCLATURE:

Part No.	<u>FTR-F1</u>	<u>C</u>	<u>A</u>	<u>005</u>	<u>V</u>	<u>01</u>
	I	II	III	IV	V	VI

Note A: Part No. may be split and appear on two lines.

- I. Indicates Relay type.
FTR-F1: Type number, with or without prefix FTR-
- II. Indicates contact arrangement.
C: 2 Form C
A: 2 Form A

III. Indicates coil sensibility.

A: General.

D: High sensitive, only for General (V) Position V of
Nomenclature.

*IV. Indicates coil rated voltage.

005 through 048: 5 through 48 V dc, only for high sensitive (D),
position III of nomenclature.

005 through 110: 5 through 110 V dc.

V. Indicates contact rating.

V: General.

T: TV (TV-3), only two Form A (FTR-F1AA or F1AA).

VI: Indicates minor constructive variation.

01 through 99 : additional two digits used for special.

A) Variation of coil construction.

B) Variation of pick-up voltage, non-pick-up voltage, drop
voltage, or hold voltage.

C) Variation of operate or release time.

*D) Variation of coil voltage rated within 5 through 110 V dc.

E) Variation of dielectric strength.

Ratings -

Contact Ratings:

For Types FTR-F1CA () V, FTR-F1AA () V, FTR-F1AA () T:

5 A, 24 V dc, 100,000 cycles

5 A, 24 V dc/250 V ac, Resistive, 100,000 cycles

1/6 hp, 125 V ac, 30,000 cycles

1/4 hp, 250 V ac, 30,000 cycles

Pilot Duty: C300, 30,000 cycles

Pilot Duty: R300, (except FTR-F1AA () T and FTR-F1AA () V),
30,000 cycles.

TV-3 (only for FTR - F1AA () T), 25,000 cycles

For Types FTR-F1CD () V, FTR-F1AD () V:

5 A, 24 V dc

6000 cycles

5 A, 24 V dc/250 V ac, Res.

6000 cycles

1/6 hp, 125 V ac

1000 cycles

1/4 hp, 250 V ac

1000 cycles

Pilot duty, Code C300, R300

6000 cycles

*Coil Ratings: 5 V through 48 V dc, only for high sensitive (D),
position III of nomenclature 5 V through 110 V dc.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in complete equipment or applications where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Evaluated for use in Temperature, Indicating and Regulating Applications.

Conditions of Acceptability -

1. These devices should be used within their Recognized ratings as specified above.
2. Open type devices should be mounted in enclosures having adequate strength and thickness in the intended manner and with acceptable spacing being provided.
3. When open type devices are mounted in enclosures, it should be determined if tests need to be repeated, giving particular attention to heating.
4. The terminals are to be factory wired only and the suitability of the connection shall be determined.
5. These devices are to be used for same polarity sources.