



333 Pfingsten Road
Northbrook, Illinois 60062-
(708) 272-3800
FAX No. (708) 272-8129
MCI Mail No. 254-3343
Cable ULINC NORTHBROOK
Telex No. 6502543343

File E63615
Project 90NK21771A

January 25, 1991

REPORT

on

COMPONENT - INDUSTRIAL CONTROL EQUIPMENT, SWITCHES

Fujitsu Ltd.
Component Group
Kawasaki, Japan

Copyright © 1991 Underwriters Laboratories Inc.

Underwriters Laboratories Inc. authorizes the above named company to reproduce this Report provided it is reproduced in its entirety.

Underwriters Laboratories Inc. authorizes the above named company to reproduce that portion of this Report consisting of this Cover Page through Page 2.

DFH/VRB:lar
PC lbry /cl

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

Type 211 Series, with or without FBR, may or may not be followed by S or N, followed by A, B or C, E, followed by D, followed by 001 through 024, followed by U, followed by -P or -M with or without additional suffix numbers, with or without -B.

GENERAL:

These devices are open SPDT magnetically operated switches with printed circuit terminals. They are intended to be used in office equipment and business machines where the suitability of the combination has been determined by Underwriters Laboratories Inc.

Ratings -

*Contact Ratings - Not specified, relay for use in Class 2 circuits. At the manufacturer's request, Cat. No. FBR211 with M suffix denoting silver clad copper nickel with gold overlay contacts was tested for the following ratings: 0.5A Resistive, 120 Vac (100,000 cycles) 1.0A Resistive, 28 Vac (100,000 cycles)

Coil Ratings - 1.5 V through 24 V dc

Nomenclature - They are designated:

<u>FBR211</u>	<u>S</u>	<u>A</u>	<u>D</u>	<u>012</u>	<u>U</u>	<u>-P</u>	<u>16</u>	<u>-B</u>
<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	<u>VII</u>	<u>VIII</u>	<u>IX</u>

I - Basic type number, with or without FBR.

II - Structure

S - Automated soldering type.

N - Automated soldering and immersion cleanable type.

III - Coil specifications and schematic

A - Standard Type A

B - Standard Type B

C - High sensitivity Type C

E - High sensitivity Type E

IV - Coil

D - DC - Drive coil

V - Coil voltage

001 - 1.5 V

003 through 024 - Indicates voltage.

- *VI - Indicates UL 114 type
- *VII - Contact material
 - P - Gold overlay silver palladium alloy clad copper-nickel.
 - M - Gold overlay silver-clad copper-nickel.
- *VIII - Nonelectrical features
 - 1 - 99: Mean special characteristics, for example, coil resistance, pick-up and drop-out voltages, etc., required by customers.
- *IX - Cover
 - No marking - Standard cover
 - B - "Black" cover

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

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

Conditions of Acceptability -

1. These devices are only for use in Class 2 energy where electrical spacings are not specified.