

Transfer Latching DC to 18 GHz Electro-Mechanical Relay Switch, Self Cut Off, Indicators, up to 90W, 28V, SMA

The FMSW6401 is a Transfer (DPDT) electromechanical relay switch that operates across a wide frequency range of DC to 18 GHz and can handle up to 90 Watts of CW input power in a break before make condition. The design features a Latching actuator and is rated for 5M life cycles for high reliability operation. Impressive performance includes insertion loss less than 0.2 dB typical and isolation greater than 60 dB min. The Latching Self Cut Off actuator includes Indicators and a +28 Vdc bias voltage, and operates over a temperature range of -25°C to +70°C. The rugged and compact package assembly supports SMA Female connectors and Solder Pins for DC Control. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

Electrical Specifications

Switch Type	Transfer
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	Self Cut Off, Indicators
Indicator Rating	1 Watts / 32 Volts / 125 mA

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Current @ 28 Volts		90		mA
VSWR		1.2:1	1.4:1	
Insertion Loss		0.2	0.5	dB
Insertion Loss Repeatability				
Isolation	60	70		dB
Input Power (CW)			60	Watts
Switching Time			20	ms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12	12 - 18			GHz
VSWR, Max	1.2:1	1.3:1	1.4:1			
Insertion Loss, Max	0.2	0.3	0.5			dB
Isolation, Min	70	60	60			dB
Power In, Typ (CW)	90	75	60			Watts

Mechanical Specifications

Size	
Package Type	Connectorized
Operating Life	5,000,000 Cycles



Features:

- Transfer (DPDT)
- DC to 18 GHz Frequency Range
- Isolation greater than 70 dB typical
- 5M Cycle Min Operating Life
- +28 Volt DC
- 90 Watt average Power
- Latching Actuator
- Self Cut Off
- 1 Watt Indicators
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.2 dB Max
- VSWR as low as 1.2:1 max
- SMA Female RF connectors
- Solder Pins for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

Applications:

- High Performance Relay Switch
- Military Communications
- Communications Systems
- Test & Measurement

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Connectors

RF Connector Type
Control Connector

SMA Female
Solder Pin

Environmental Specifications

Temperature

Operating Range
Storage Range

-25 to +70 deg C
-55 to +100 deg C

Shock
Vibration

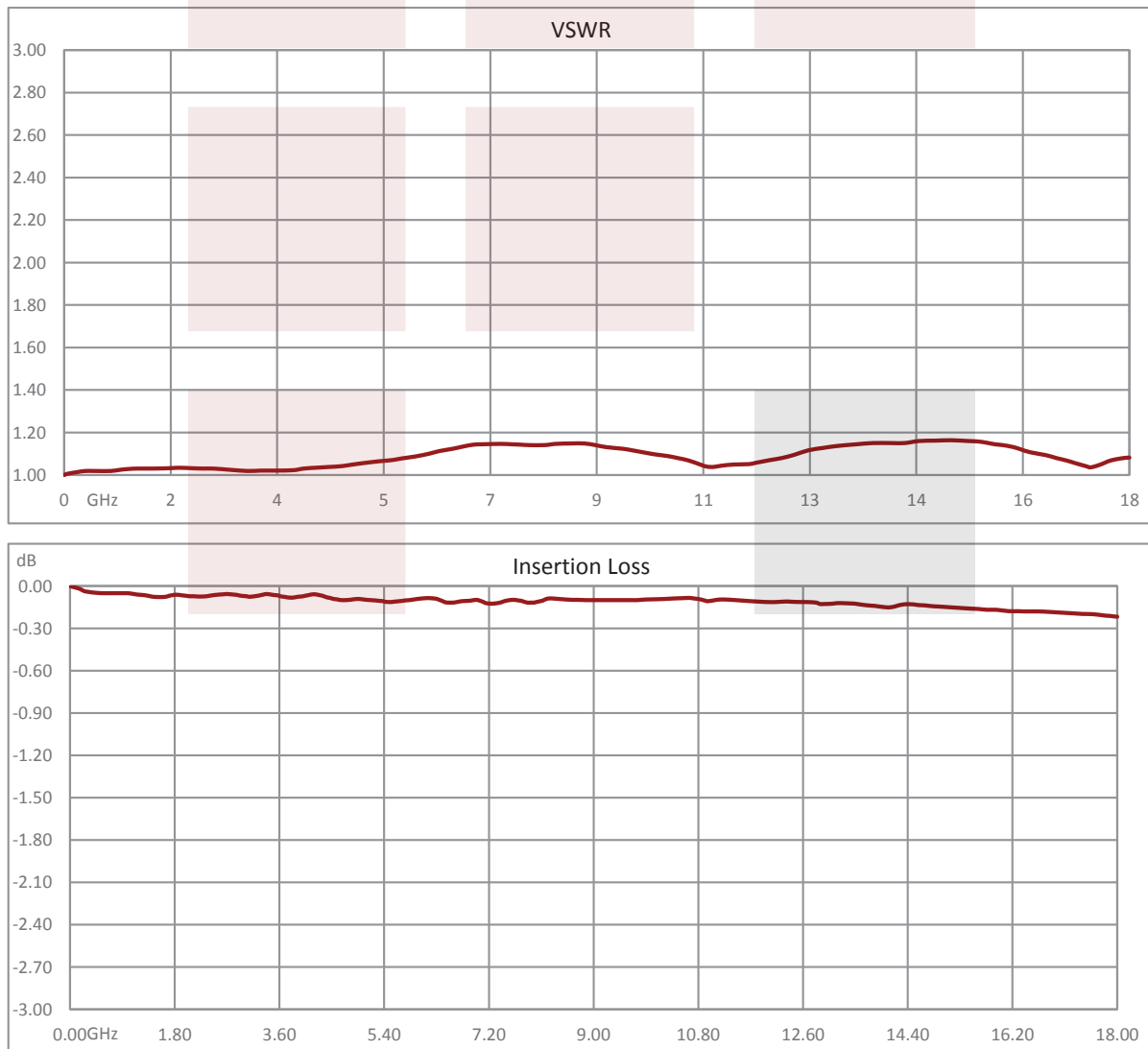
MIL-STD-202 Method 213, Cond. D 500G Non Operating
MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

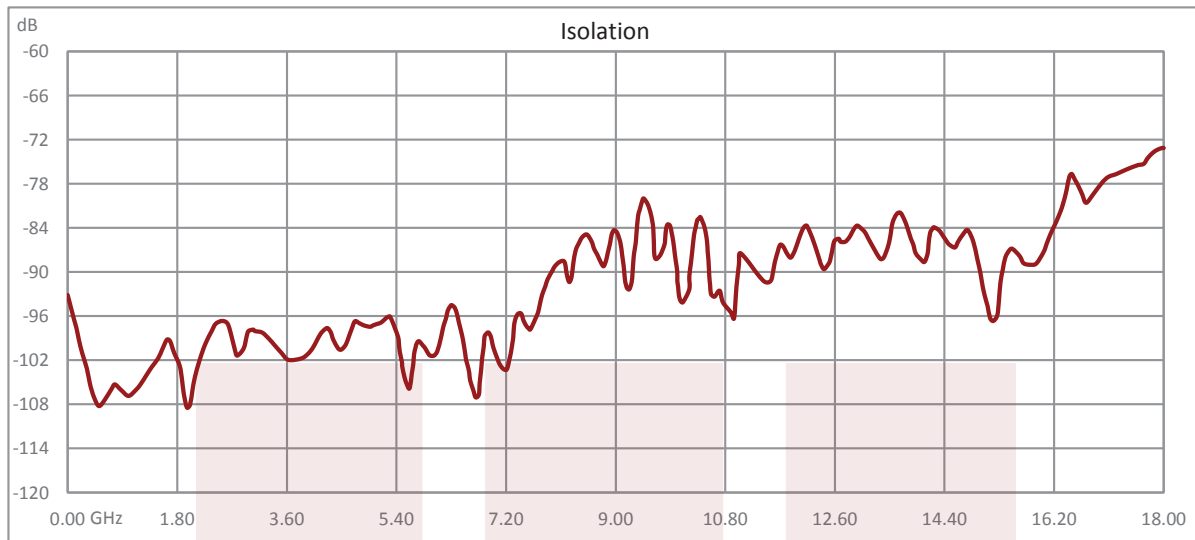
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



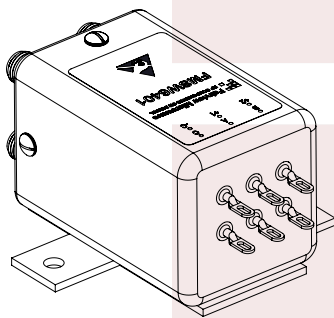
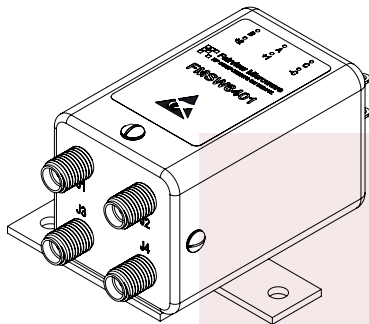


Transfer Latching DC to 18 GHz Electro-Mechanical Relay Switch, Self Cut Off, Indicators, up to 90W, 28V, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Transfer Latching DC to 18 GHz Electro-Mechanical Relay Switch, Self Cut Off, Indicators, up to 90W, 28V, SMA FMSW6401](https://www.fairviewmicrowave.com/transfer-latching-18-ghz-electro-mechanical-relay-switch-indicators-60w-28v-sma-fmsw6401-p.aspx)

URL: <https://www.fairviewmicrowave.com/transfer-latching-18-ghz-electro-mechanical-relay-switch-indicators-60w-28v-sma-fmsw6401-p.aspx>

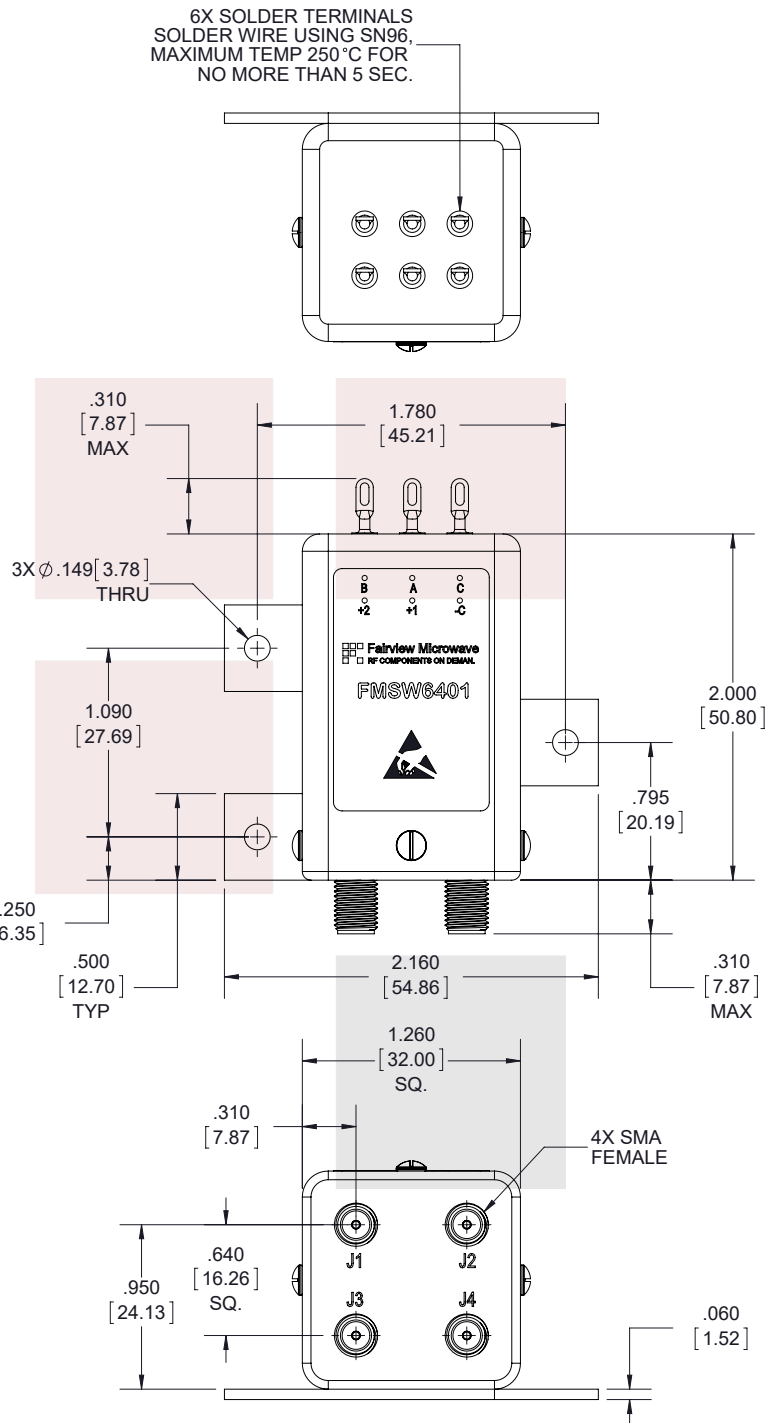
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



STANDARD TOLERANCES

.X ± 0.2
.XX ± 0.01
.XXX ± 0.005

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



FAIRVIEW MICROWAVE INC.

ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

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NOTES:

1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

DWG NO

FMSW6401

CAGE CODE

3FKR5

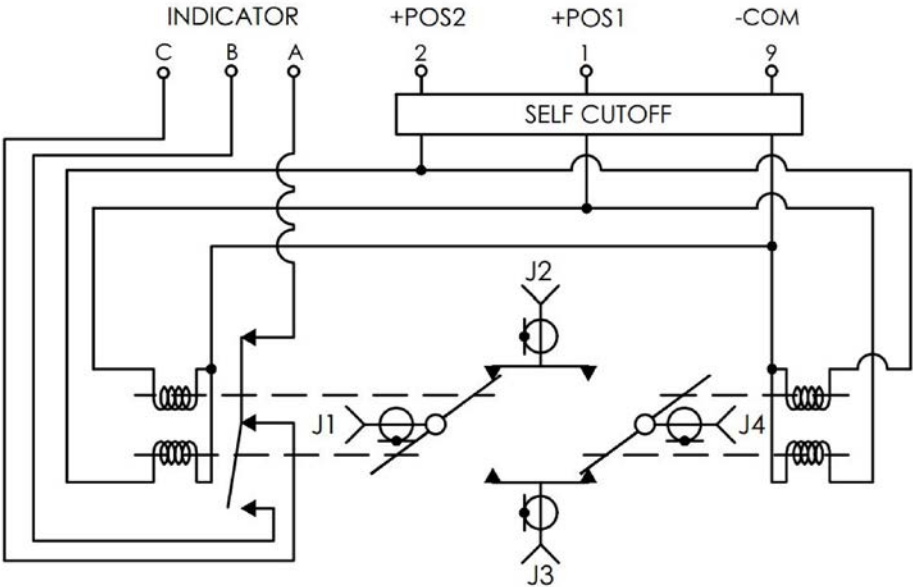
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SHEET 1 OF 2

SCALE N/A

SIZE A

7361



SCHEMATIC SHOWN IN LATCHING POSITION

POS	VOLTAGE	RF PATH	INDICATOR PATH
POS 1	1-9	J1-J2, J3-J4	A-C
POS 2	2-9	J1-J3, J2-J4	B-C

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.X ±0.2
.XX ±0.01
.XXX ±0.005

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