

## Transfer Failsafe DC to 12 GHz Electro-Mechanical Relay Switch, up to 600W, 28V, N

The FMSW6403 is a Transfer (DPDT) electromechanical relay switch that operates across a wide frequency range of DC to 12 GHz and can handle up to 600 Watts of CW input power in a break before make condition. The design features a Failsafe actuator and is rated for 2M life cycles for high reliability operation. Insertion loss is specified as low as 0.2 dB maximum and Isolation up to 80 dB minimum. The Failsafe actuator has a +28 Vdc bias voltage, and operates over a temperature range of -25°C to +70°C. The rugged and compact package assembly supports N 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 Failsafe  
 Switching Sequence Break before Make

Description	Min	Typ	Max	Units
Frequency Range	DC		12	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Set Current @ 28 Volts		270		mA
VSWR			1.4:1	
Insertion Loss			0.5	dB
Isolation	60	80		dB
Input Power (CW)			200	Watts
Switching Time			20	ms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 2	2 - 4	4 - 8	8 - 12		GHz
VSWR, Max	1.2:1	1.4:1	1.5:1	1.7:1		
Insertion Loss, Max	0.2	0.4	0.5	0.7		dB
Isolation, Min	80	80	70	60		dB
Power In, Typ (CW)	600	300	230	200		Watts

### Mechanical Specifications

#### Size

Weight 0.5395 lbs [244.71 g]  
 Body Material and Plating Aluminum  
 Package Type Connectorized  
 Operating Life 2,000,000 Cycles



### Features:

- Transfer (DPDT)
- DC to 12 GHz Frequency Range
- 2M Cycle Min Operating Life
- +28 Volt DC
- 600 Watt Power
- Failsafe Actuator
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.2 dB Max
- VSWR from 1.2:1 Max
- N Female RF connectors
- Solder Pin DC control

### Applications:

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

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**Connectors**

RF Connector Type	N Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material & Plating	Aluminum, Nickel
Control Connector	Solder Pin

**Environmental Specifications**

**Temperature**

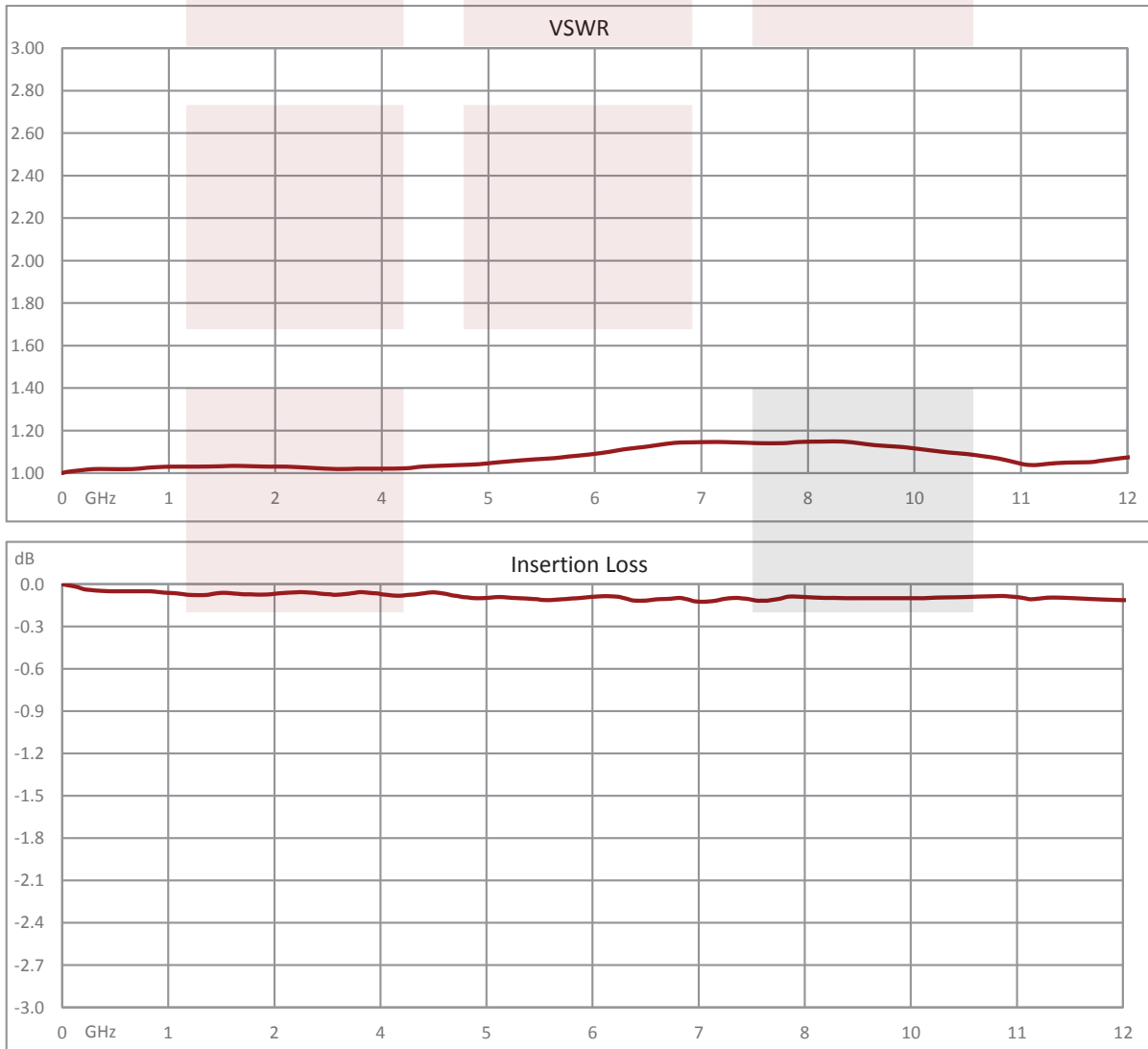
Operating Range	-25 to +70 deg C
Storage Range	-55 to +100 deg C

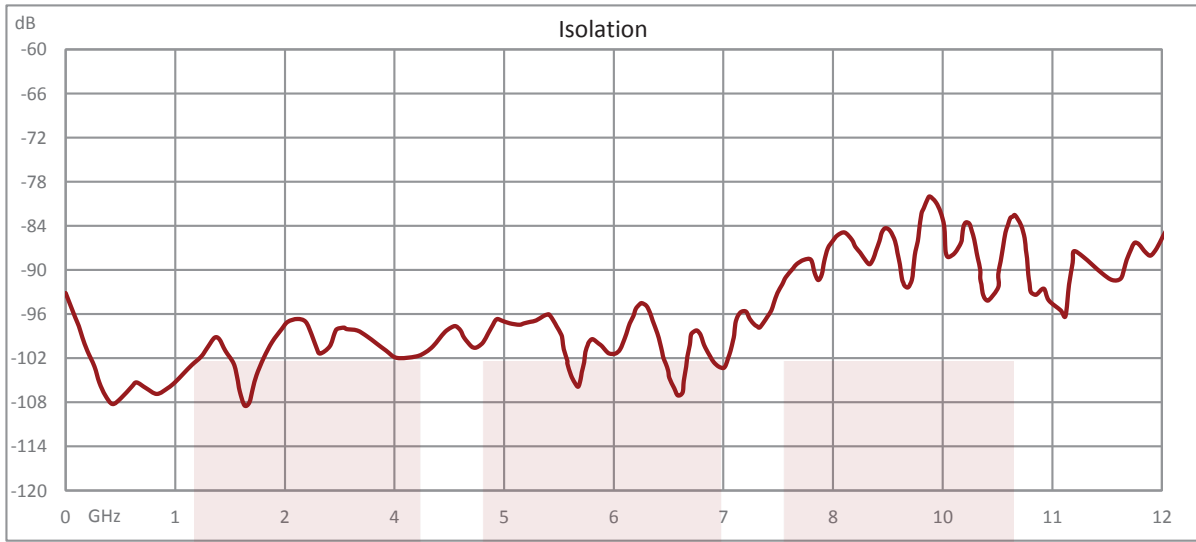
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

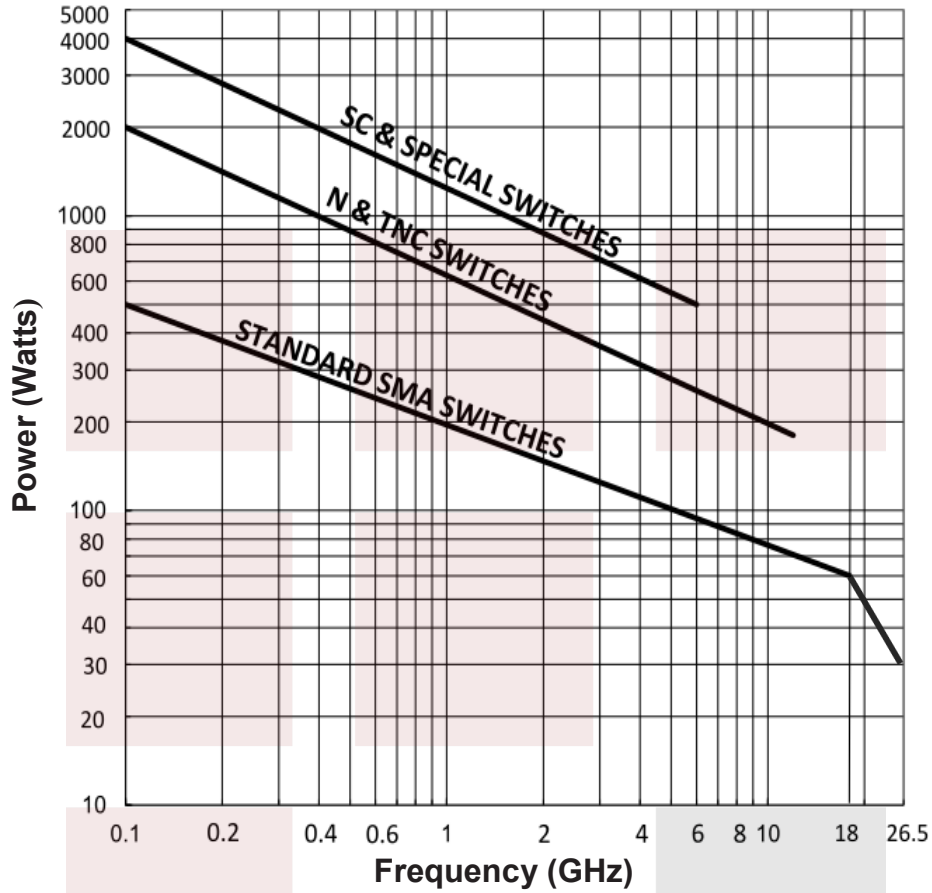
Notes:

**Typical Performance Data**





**Power Handling vs. Frequency & Connector Type**



**Environmental and Test Conditions:**

- Ambient temperature of 25°C or less
- Altitude: Sea Level
- Load VSWR: 1.20:1 max.
- Cold Switching

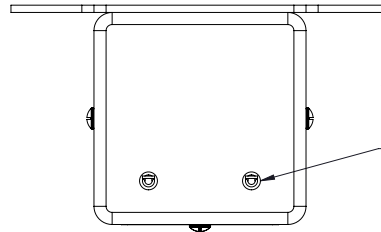
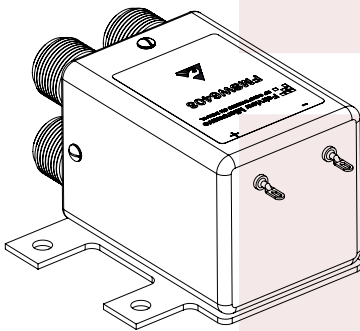
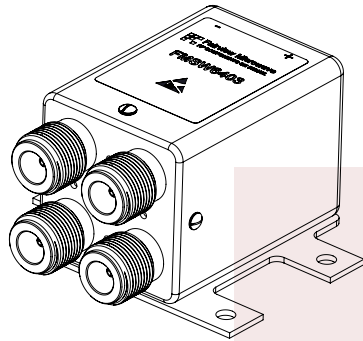
Transfer Failsafe DC to 12 GHz Electro-Mechanical Relay Switch, up to 600W, 28V, N from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Transfer Failsafe DC to 12 GHz Electro-Mechanical Relay Switch, up to 600W, 28V, N FMSW6403](#)

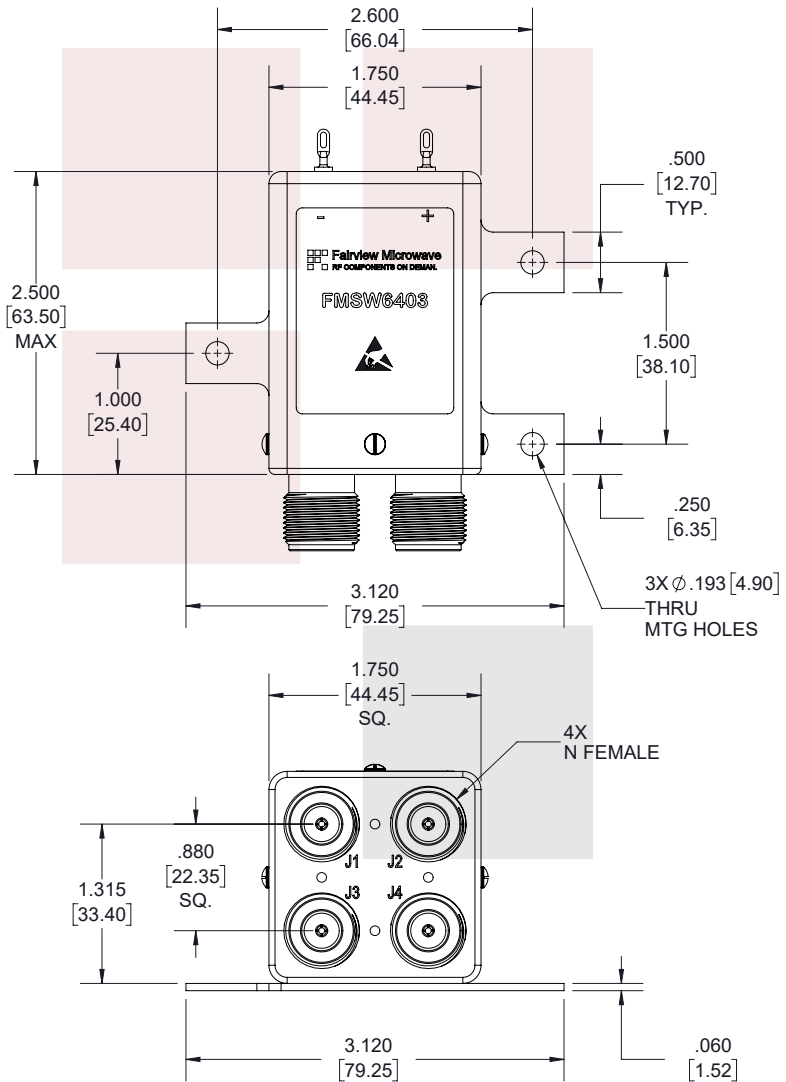
URL: <https://www.fairviewmicrowave.com/transfer-failsafe-12-ghz-electro-mechanical-relay-switch-200w-28v-n-fm-sw6403-p.aspx>

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2X SOLDER WIRE TO  
D.C. TERMINALS FOR  
ALL RoHS SWITCH  
WE WILL USE Sn96  
MAX TEMP 430°F FOR  
NO MORE THAN 5 SEC.

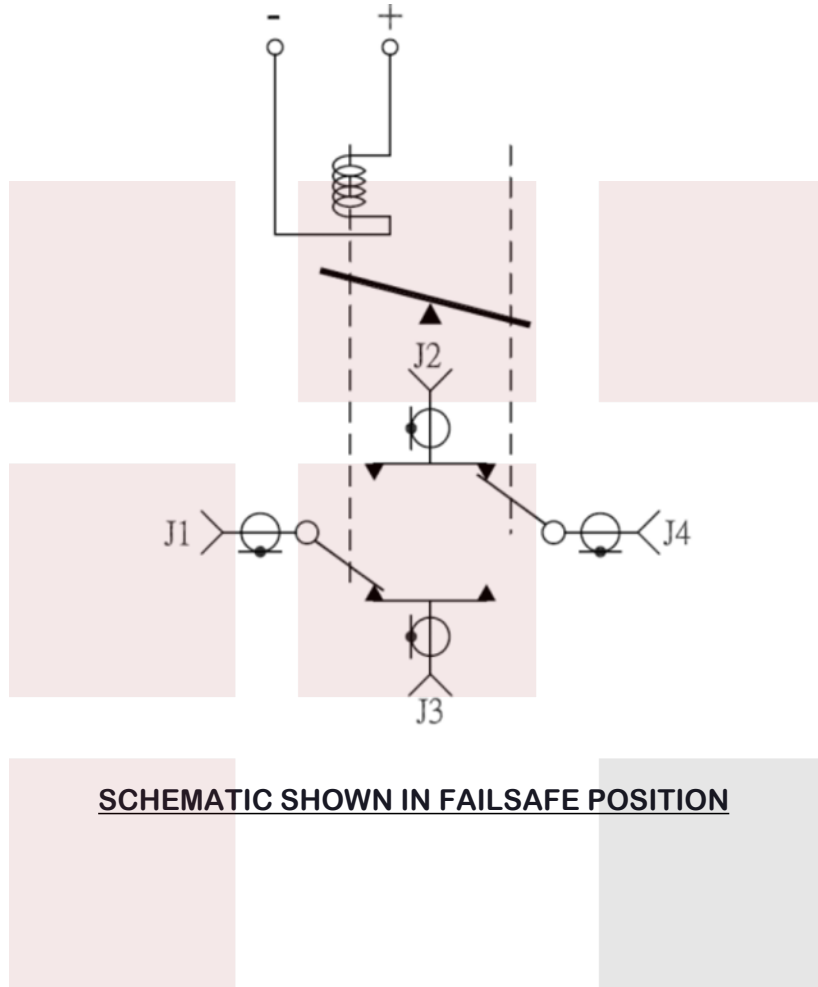


**STANDARD TOLERANCES**

- .X ±0.2
- .XX ±0.01
- .XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE Transfer Failsafe DC to 12 GHz Electro-Mechanical Relay Switch, up to 600W, 28V, N		DWG NO <b>FMSW6403</b>		CAGE CODE <b>3FKR5</b>				
CAD FILE	102317	SHEET	1 OF 2	SCALE	N/A	SIZE	A	7361



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.XX	±0.01
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