

**SPDT Failsafe Electro-Mechanical Relay
 Switch From DC to 4 GHz, 275 Watts, N**

The SR4-N1 is a SPDT Electromechanical Relay Switch that operates from DC to 4 GHz with up to 550 Watts of input power (CW) handling capability. Rated for 1M Life Cycles, this design uses a Failsafe Actuator with a break before make configuration. The switch exhibits exceptional electrical performance specified from 0.1 dB max for insertion loss and from 80 dB min for isolation, and is guaranteed over -40 deg C to +85 deg C. The assembly requires an operating DC voltage of +20 Vdc and is certified as RoHS and REACH compliant. External connectors include solder terminals and N female connectors.

Electrical Specifications

Switch Type	SPDT, Reflective
Actuator Type	Failsafe
Switching Sequence	Break before Make
Pickup Voltage	20 Volts
Dropout Voltage	2 Volts

Description	Min	Typ	Max	Units
Frequency Range	DC		4	GHz
Impedance		50		Ohms
Operating Voltage	22	28	32	Volts
Actuating Current @ 28 Volts			82	mA
VSWR			1.3:1	
Insertion Loss			0.25	dB
Isolation	70			dB
Third Order Intermodulation			95	dBc
Input Power (CW)			275	Watts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 1	1 to 2	2 to 3	3 to 4		GHz
VSWR, Max	1.1:1	1.15:1	1.25:1	1.3:1		
Insertion Loss, Max	0.1	0.15	0.2	0.25		dB
Isolation, Min	80	80	80	70		dB
Power In, Typ (CW)	550	400	325	275		Watts

Electrical Specification Notes:

Intermodulation measured with two 250 Watt signals (F1 = 825 MHz, F2 = 850 MHz)



Features:

- SPDT Switch
- DC to 4GHz Operating Range
- 1M Cycles min
- Failsafe Switch
- Switching Sequence Break before Make
- +28 Vdc Operating Voltage

Applications:

- Test & Measurement
- Instrumentation

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Mechanical Specifications

Size

Length	2.5 in [63.5 mm]
Width/Diameter	2.34 in [59.44 mm]
Height	1 in [25.4 mm]
Weight	0.41 lbs [185.97 g]
Body Material and Plating	Aluminum, Black Anodized
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	20 ms Max

Connectors

RF Connector Type	N Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material and Plating	Passivated Stainless Steel
Control Connector	Solder Terminals

Mechanical Specification Notes:
 RF Connector mating requirements per MIL-C-39012

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +100 deg C

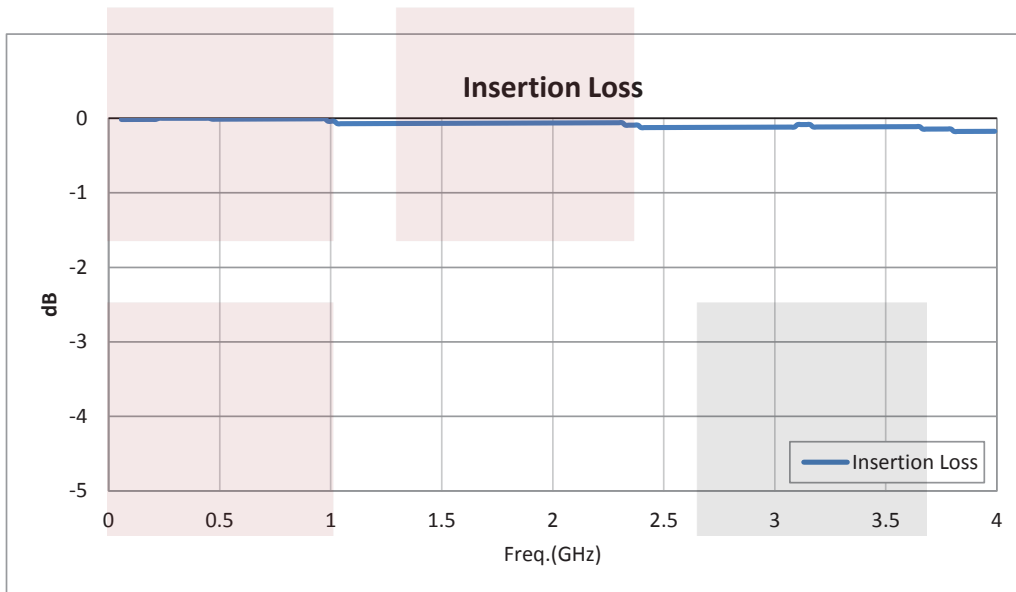
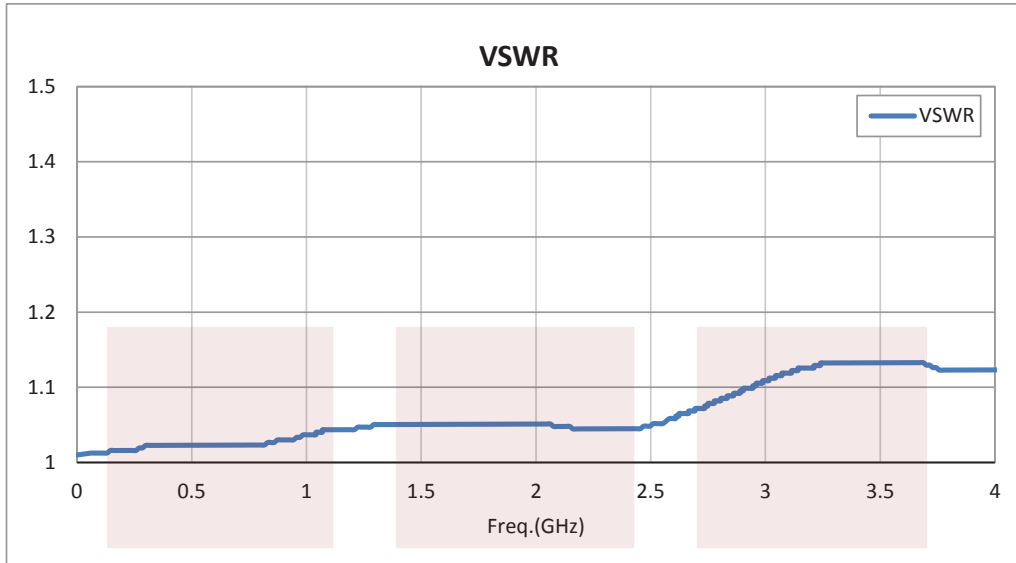
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant	
REACH Compliant	12/17/2014

Plotted and Other Data

Notes:

Typical Performance Data

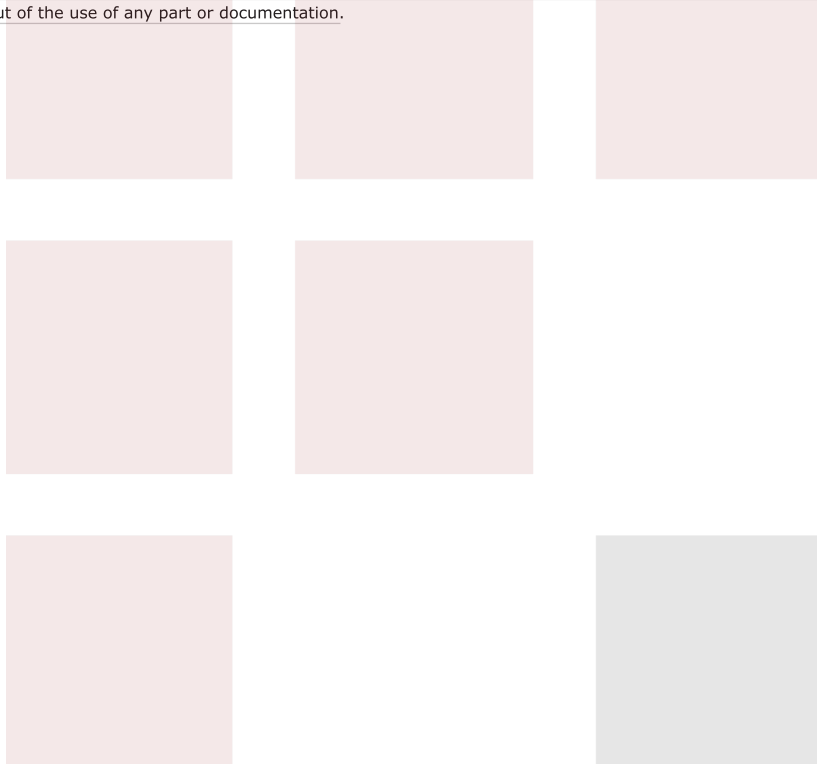


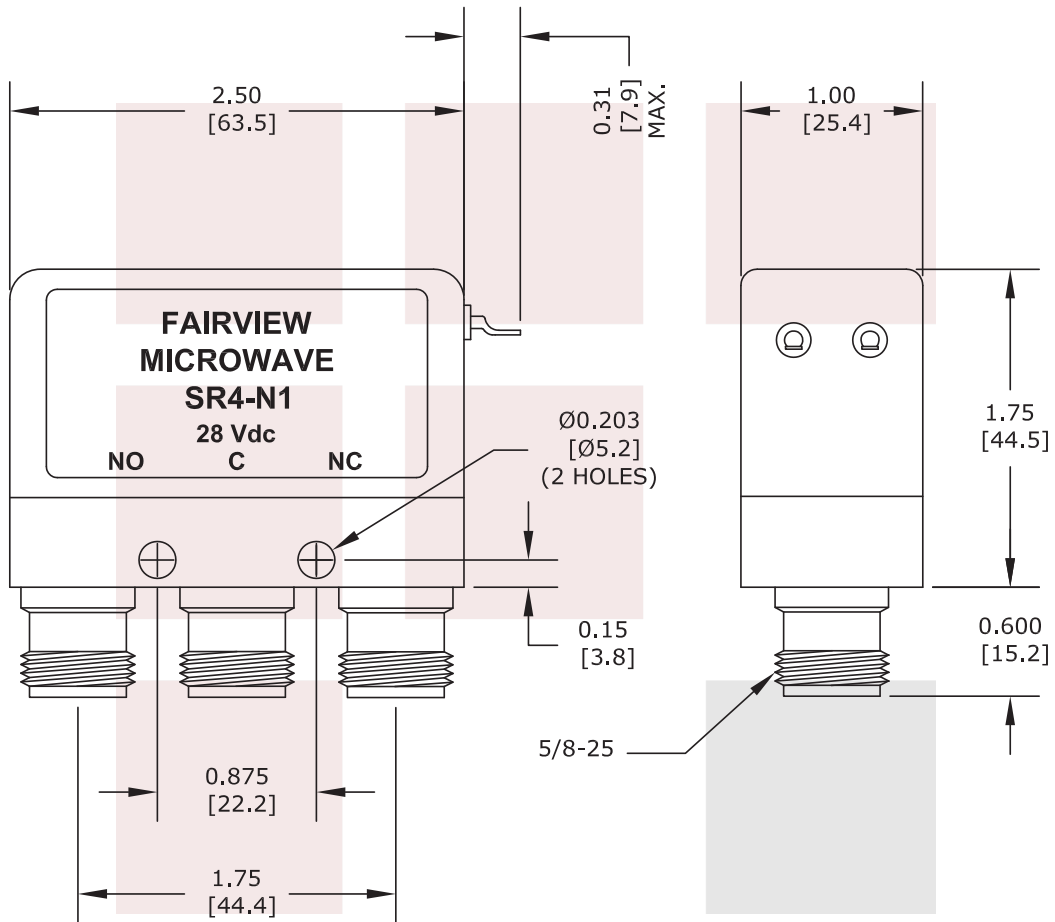
SPDT Failsafe Electro-Mechanical Relay Switch From DC to 4 GHz, 275 Watts, N from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Failsafe Electro-Mechanical Relay Switch From DC to 4 GHz, 275 Watts, N SR4-N1](#)

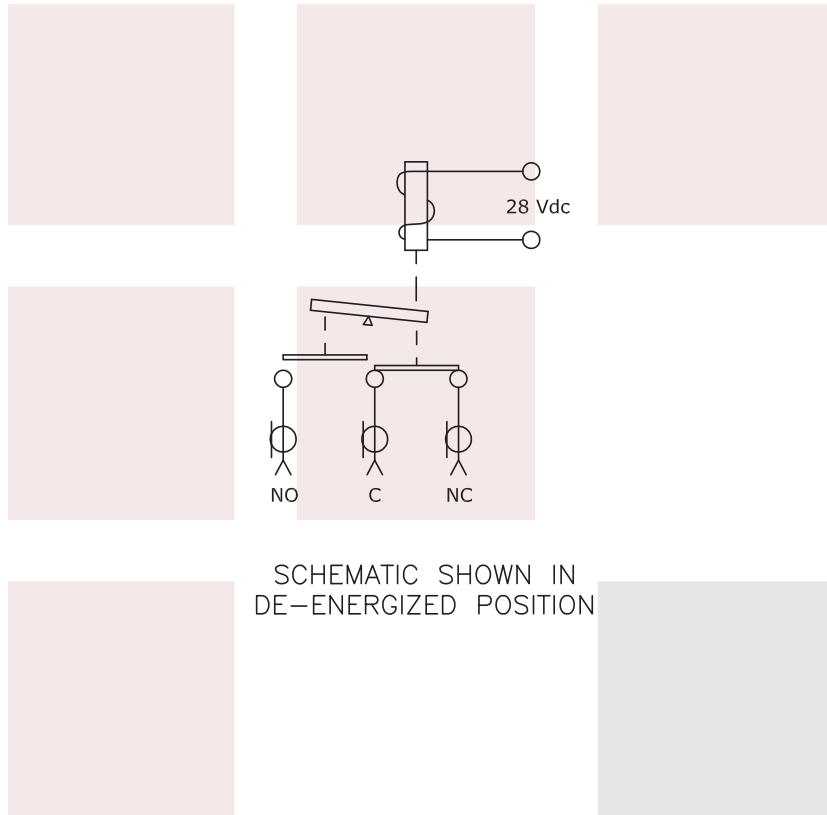
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TITLE SPDT Fail-safe Electro-Mechanical Relay Switch From DC to 4 GHz, 275 Watts, N		DWG NO SR4-N1		CAGE CODE 3FKR5	
CAD FILE	120915	SHEET	SCALE	N/A	SIZE A 150



SCHEMATIC SHOWN IN
 DE-ENERGIZED POSITION

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