

FMWGS6055 DATA SHEET

WRD-180 Double Ridge Waveguide Latching Relay Switch SPDT/DPDT, 18 GHz to 40 GHz Frequency Band, 2,000 Watts, UG Cover, 12V, TTL

The FMWGS6055 electromechanical relay switch supports double ridge WRD-180 waveguide ports and operates across an ultra-wide frequency range from 18 GHz to 40 GHz. The switch is configured for single pole double throw (SPDT) operation. A shorting plate on port 3 can be removed for optional double pole double throw (DPDT) operation. This innovative design features a latching TTL Logic controlled Self Cut Off actuator and patented motor drive with arc suppression. The motor drive housing supports a viewable position indicator window and a cover that can be removed for manual override access. Impressive performance includes 0.40 dB max insertion loss, 50 dB min Isolation, 1.30:1 max VSWR, and an operating life of 250K cycles minimum. The design operates across a temperature range of -40°C to +85°C, requires +28Vdc nominal bias voltage, and has an input power rating of up to 2 KW CW maximum. The double ridge waveguide ports have standard UG Cover Flanges. The rugged package design is fully weatherized for up to 100% humidity exposure and supports a quick connect circular 10 pin MIL-SPEC DC bias connector with mate included.

Electrical Specifications

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Switch Type	SPDT/DPDT
Actuator Type	Latching
Actuator Options	TTL Logic, Self Cut Off, Set Indica-
	tors, Manual Override, Viewing Win-
	dow

Description	Min	Тур	Max	Units
Frequency Range	18		40	GHz
Operating Voltage	10	12	20	Volts
Actuating Current @ 12 Volts			1	A
VSWR			1.3:1	
Insertion Loss			0.4	dB
Isolation	50			dB
Switching Time		80		ms
Input Power (CW)			2	kWatts

Mechanical Specifications

Size

Operating Life 250,000 Cycles
Operating Pressure 30 psig

Configuration

Waveguide Size WRD-180
Flange Type UG Cover
Body Material and Plating Aluminum, Gold
Body Plating Specification MIL-DTL-5541

Environmental Specifications Temperature

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



Features:

- 18 to 40 GHz SPDT Double Ridge Waveguide Switch
- Optional DPDT Configuration
- WRD-180 Double Ridge Waveguide
- Insertion Loss: 0.40 dB Max
- Isolation: 50 dB min
- +12 Vdc Nominal Voltage
- Input Power Rating up to 2 KW CW max
- Latching TTL Logic Self Cut Off Actuator
- Position Indicator and Manual Override Access
- Fully Weatherized Package
- Quick Connect Circular DC Connector with Mate
- -40°C to +85°C Operating Temperature

Applications:

- · Electronic Warfare
- Electronic Countermeasures
- · Microwave Radio
- VSAT
- Radar
- Space Systems
- Test Instrumentation
- · Research and Development

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Humidity

0 to 100%, Fully Weatherized

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

WRD-180 Double Ridge Waveguide Latching Relay Switch SPDT/DPDT, 18 GHz to 40 GHz Frequency Band, 2,000 Watts, UG Cover, 12V, TTL 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 Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: WRD-180 Double Ridge Waveguide Latching Relay Switch SPDT/DPDT, 18 GHz to 40 GHz Frequency Band, 2,000 Watts, UG Cover, 12V, TTL FMWGS6055

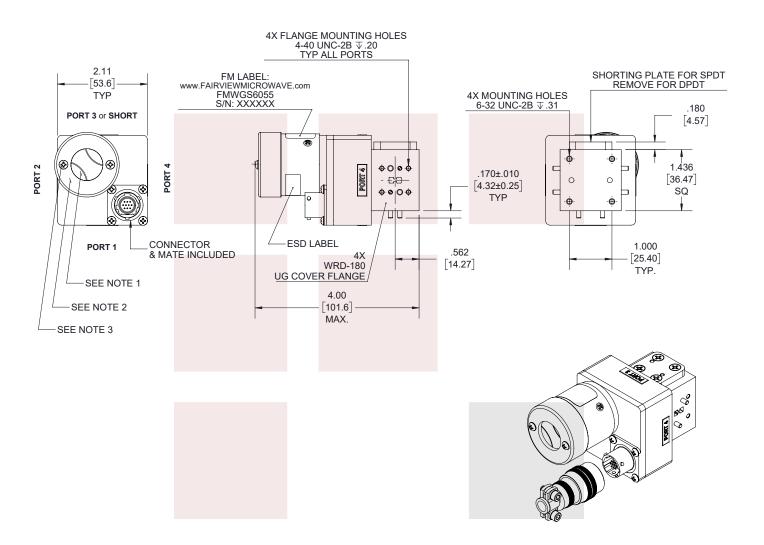
URL: https://www.fairviewmicrowave.com/wrd-180-waveguide-electromechanical-relay-latching-switch-spdt-dpdt-40-ghz-fmwgs6055-p.aspx

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STANDARD TOLERANCES

.X ±0.2 .XX ±0.01 .XXX ±0.005

NOTES:

- 1. MANUAL OVERRIDE & POSITION INDICATOR.
- 2. WEATHERIZED COVER WITH CLEAR VIEWING WINDOW.
- 3. FOR ACCESS TO MANUAL OVERRIDE LOOSEN (2) CAPTIVE SCREWS.

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

Fairview Microwave	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].					
an INFINIT [®] brand	3. DIMENSIONS ARE II	N INCHES [mm].				
WRD-180 Double Ridge Waveguide Latching Relay	DWG NO FMW	DWG NO FMWGS6055		CAGE CODE 3FKR5		
Switch SPDT/DPDT, 18 GHz to 40 GHz Frequency Band, 2,000 Watts, UG Cover, 12V, TTL	CAD FILE 07/29/19	SHEET 1 OF 2	SCAL	E N/A	SIZE A	7361



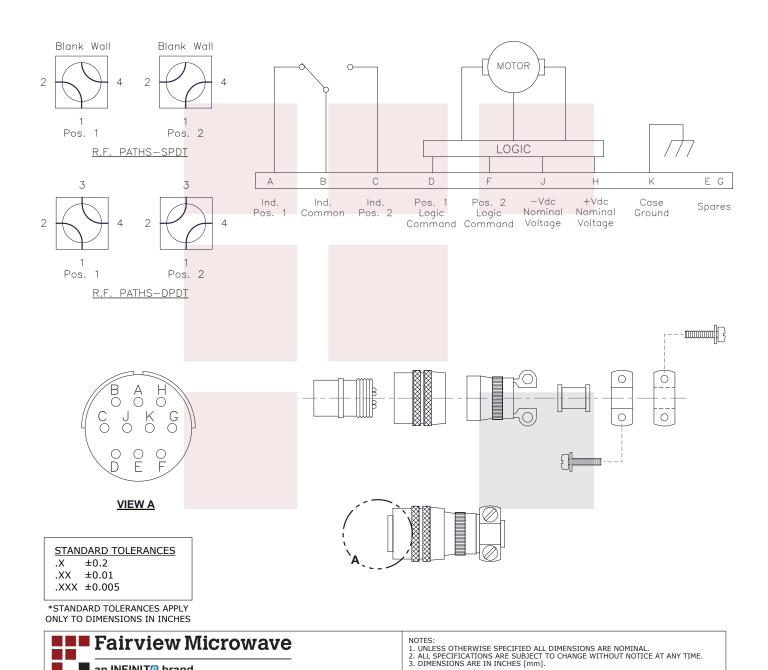


CAGE CODE

SIZE A

SCALE N/A

3FKR5



DWG NO

CAD FILE 07/29/19

WRD-180 Double Ridge Waveguide Latching Relay Switch SPDT/DPDT, 18 GHz to 40 GHz Frequency

Band, 2,000 Watts, UG Cover, 12V, TTL

an INFINIT[®] brand

TITLE

FMWGS6055

SHEET

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