# **Lightweight Waveguide Switches**

# WR62, WR75, WR90

WR62T1-4321 WR62T2-4321 WR75T1-4321 WR75T2-4321 WR90T1-4321 WR90T2-4321

#### Description

Dow-Key latching Lightweight Waveguide Switches are superior to previous designs in terms of weight, size, and current consumption. In addition, these switches are equipped with Indicator Circuitry and with Transient Suppression Diodes.

The total weight for the WR62 has been reduced by 46% and by 55% for both WR75 and WR90 waveguide models. The overall dimensions are slightly smaller when compared to earlier Dow-Key designs and they draw 65% less current.

These waveguide switches are excellent for use in all types of applications where size and weight are critical in such as military and commercial airborne programs. For Space Qualified requirements consult with factory for our Hi-Rel Waveguide Switch product line, ranging in sizes from WR15 to WR112.

e 1 1 1	
)	WR90T2-4321
)	

#### **Materials and Finishes**

RF Waveguide Housing	Aluminum, Chem Film
Actuator Housing	Aluminum, Electroless Nickel

#### Environmental

	Operating Temperature	-54 °C to +85 °C
	Storage Temperature	-54 °C to +85 °C
	+ POS. 1	() () () () () () () () () ()
	PORT 1 PORT 2 PORT 3 POSITION 1 16x, #8-32UNC-28 x 7-22	$J2 - \underbrace{J1}_{[81,3]} J4 $
	16.7, gr - 32.00C - 20 X = .22 14.7 [36.5] 1.675 [47.6] 1.675 [47.6]	
Off	Dow Ke	ey ® Microwave
)	4822 McGrath Stre Tel: (805) 650-0260	ve Products et, Ventura, CA 93003 Fax: (805) 650-1734 ww.dowkey.com

#### **Frequency Ranges**

WR62Tx*-4321	12.4-18.0 GHz
WR75Tx*-4321	10.0-15.0 GHz
WR90Tx*-4321	8.2-12.4 GHz

\* Available Flange Types: T1 = Cover Flange T2 = Choke Flange

## **RF Characteristics**

VSWR (max)	1.10:1
Insertion Loss (max)	0.10 dB
Isolation (min)	60 dB

## **Actuation Data**

Operating Voltage (range)	24-30 Vdc
Operating Voltage (nominal)	+28 Vdc
Operating Current (max) *	0.35 A
Switching Time (max)	100 ms
Operating Mode	Latching Self Cut-Off
* $\Lambda t \pm 28$ V/dc and 20 °C	

\* At +28 Vdc and 20 °C

#### Mechanical

Weight (max)	300 gram (10.6 oz.)
Design Life	200,000 Cycles

v1.1 04/08