

# Waveguide Switch

# Type GR

## Description

The state-of-the-art Type GR Waveguide switch series with ten different waveguide sizes utilizes the unique transactor actuator. This direct coupled actuator is small in size and more reliable than older designs using motors/gears, rotary or linear solenoids. The complete line is available failsafe or latching.

## Standard Products

The following are standard for this switch series: failsafe or latching, choke flanges, pressurized, indicator circuits, 28Vdc, power connector.

## Special Configuration

Actuating Voltage  
Transient Circuit

## Transactor Actuator

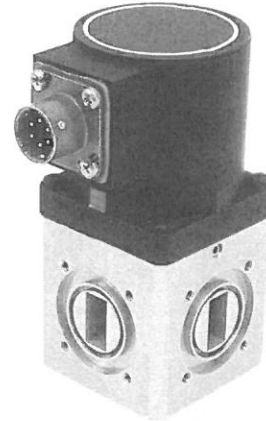
Transco has used modern motor technology and combined the actuator rotor and switch RF rotor in a single integrated assembly. This exclusive design feature greatly extends the switch life.

**RF Circuit: 3 or 4 Port**

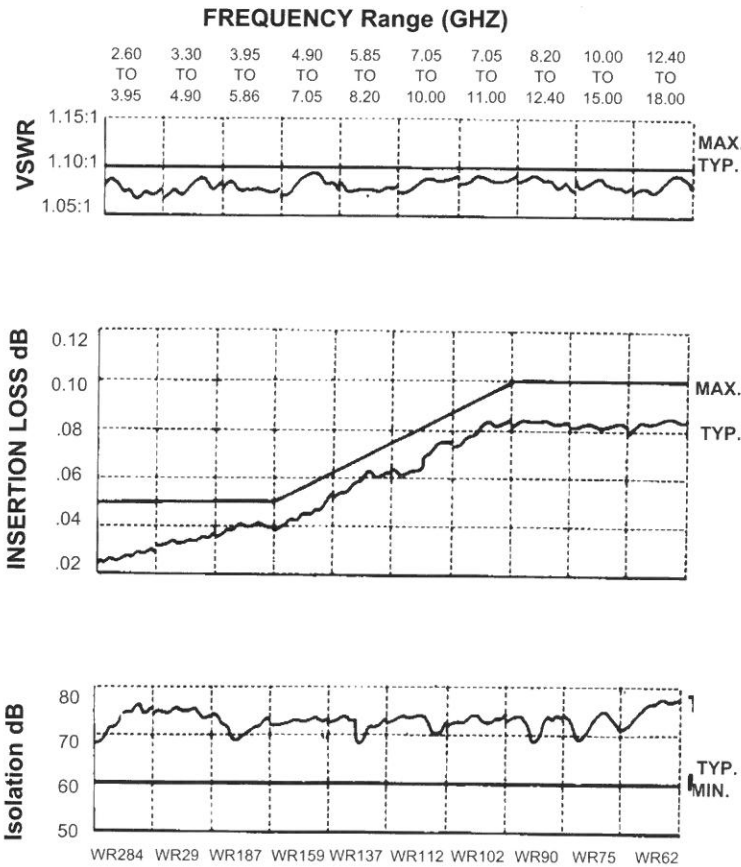
**Actuator: Latching and Failsafe**

**Connector: WR284 - WR62**

**Frequency: 2.6-18GHz**

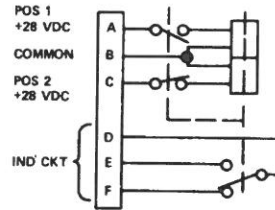


## RF Performance

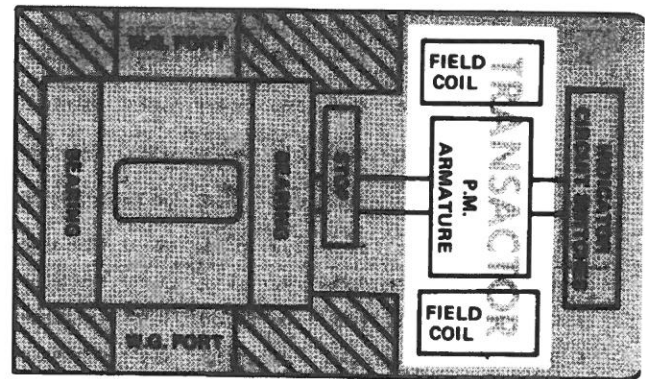
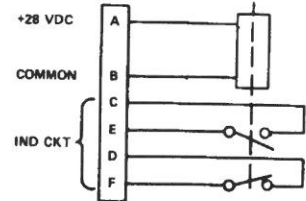


## Schematic

### #1. Latching



### # 2. Failsafe



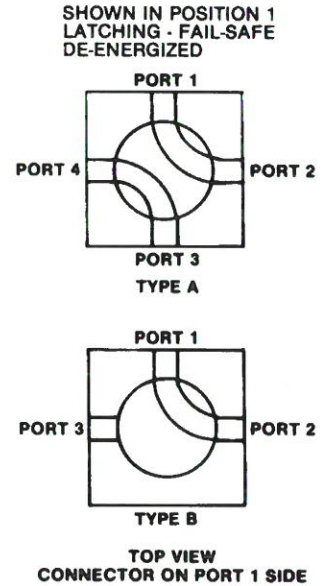
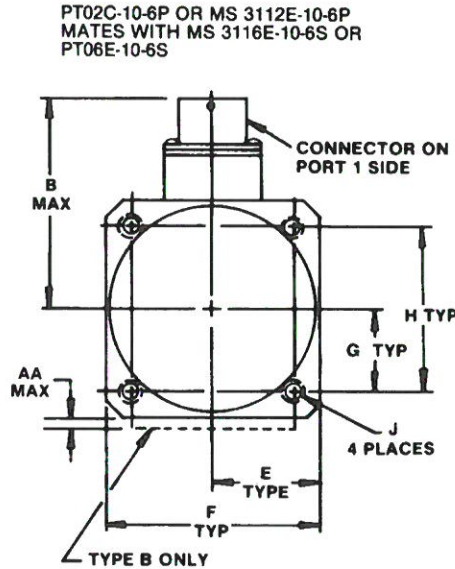
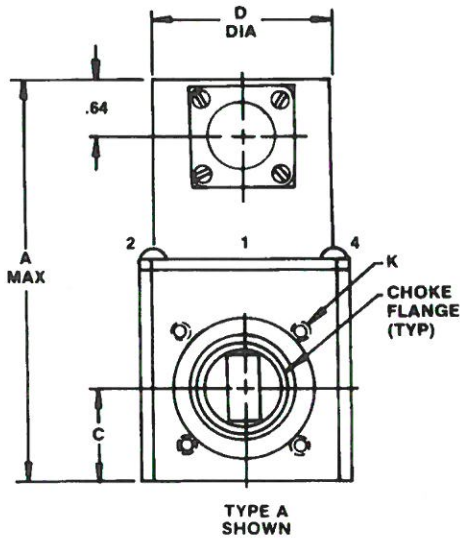
(SELF ALIGNING COMMON SHAFT)

EIA WG DESIGNATION

KC-33D00300

Positions: 3 or 4 port  
 RF Power: equivalent to 90° E-Plane WG bend  
 Actuator: "transactor"  
 Voltage: 24 to 30Vdc  
 Current: see chart  
 Switching Time: see chart  
 Indicator: for switching position  
 Pressurized: 20 psig  
 Temperature: -54°C to 95°C  
 Life: 200,000 cycles min  
 Finish: dull black

### Dimensions and Part Numbers



PART NO.	WAVE-GUIDE SIZE	SWITCH TYPE	FREQUENCY RANGE GHz	SWITCHING TIME, MAX	CURRENT AMP MAX (28Vdc, 20°C)	AA	A	B	C	D	E	F	G	H	J	K	WEIGHT LBS. MAX.
33D00100	WR 62	A FAILSAFE	12.4 - 18.00	100MS	.5	-	3.80	1.87	.877	1.850	.9375	1.875	.718	1.437	8-32 x 25 DEEP	6-32 x 22 DEEP	1.3
33D00200	WR 62	A LATCHING	↑	↑	1	-	4.00	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
33D00300	WR 62	B FAILSAFE	↓	↓	.5	.10	3.80	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
33D00400	WR62	B LATCHING	12.4-18.00	↑	1	.10	4.00	↑	.877	↑	↑	↑	↑	↑	↑	↑	1.3
33D09100	WR 75	A FAILSAFE	10.0 - 15.00	↑	.5	-	3.95	↑	.941	↑	↑	↑	↑	↑	↑	↑	1.4
33D09200	WR 75	A LATCHING	↑	↑	1	-	4.15	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
33D09300	WR 75	B FAILSAFE	↓	↓	.5	.10	3.95	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
33D09400	WR 45	B LATCHING	10.0-15.00	↑	1	.10	4.15	↑	.941	↑	↑	↑	↑	↑	↑	↑	↑
33D01100	WR 90	A FAILSAFE	8.20-12.40	↑	.5	-	4.05	↑	1.016	↑	↑	↑	↑	↑	↑	↑	↑
33D01200	WR 90	A LATCHING	↑	↑	1	-	4.30	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
33D01300	WR 90	B FAILSAFE	↓	↓	.5	.13	4.05	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
33D01400	WR 90	B LATCHING	8.20-12.40	↑	1	.13	4.30	1.87	1.016	1.850	.9375	1.875	.718	1.437	8-32 x 25 DEEP	8-32 x 22 DEEP	1.4
33D03200	WR 112	A LATCHING	7.05 - 10.00	↑	1	-	5.10	2.07	1.245	2.25	1.187	2.375	1.000	2.000	10-32 x 31 DEEP	8-32 x 28 DEEP	2.3
33D03400	WR112	B LATCHING	7.05-10.00	100MS	1	.13	5.10	2.07	1.245	2.25	1.187	2.375	1.000	2.000	10-32 x 31 DEEP	8-32 x 28 DEEP	2.3
33D04200	WR 137	A LATCHING	5.85-8.20	150MS	1	-	7.00	2.57	1.750	3.25	2.125	4.250	1.750	3.500	1/4-20 X 40 DEEP	10-32 x 30 DEEP	8.3
33D04400	WR 137	B LATCHING	5.85-8.20	↑	1	.13	7.00	↑	1.750	↑	↑	↑	↑	↑	↑	↑	8.3
33D06200	WR 187	A LATCHING	3.95-5.85	↑	1	-	7.50	↑	2.000	↑	↑	↑	↑	↑	↑	↑	9.0
33D06400	WR 187	B LATCHING	3.95-5.85	150 MS	1	.13	7.50	↑	2.00	↑	2.125	4.250	1.750	3.500	1/4-20 X 40 DEEP	10-32 x 30 DEEP	9.0
33D08200	WR 284	A LATCHING	2.60-3.95	500 MS	1.5	-	9.00	↓	2.750	↓	2.937	5.875	2.375	4.750	1/4-20 X 50 DEEP	1/4-20 X 40 DEEP	17.0
33D08400	WR 284	B LATCHING	2.60-3.95	500 MS	1.5	.15	9.00	2.57	2.750	3.25	2.937	5.875	2.375	4.750	1/4-20 X 50 DEEP	1/4-20 X 40 DEEP	17.0