

# Waveguide Switch Series-WR42

## Electrical Specifications:

| Parameter                | Minimum                      | Typical | Maximum |
|--------------------------|------------------------------|---------|---------|
| Frequency                | 18GHz                        |         | 26GHz   |
| Insertion Loss           |                              |         | 0.15dB  |
| Isolation                | 60dB                         |         |         |
| VSWR                     |                              |         | 1.15:1  |
| Voltage                  |                              | +22VDC  | +32 VDC |
| Current (A)              |                              |         | 1A      |
| Switching Time(ms)       |                              |         | 50      |
| Control                  | TTL HI, Pulse (>50ms)        |         |         |
| Remote Testing Impedance | Conducting: $\leq 100\Omega$ |         |         |
|                          | Cut-off: $\geq 1000\Omega$   |         |         |

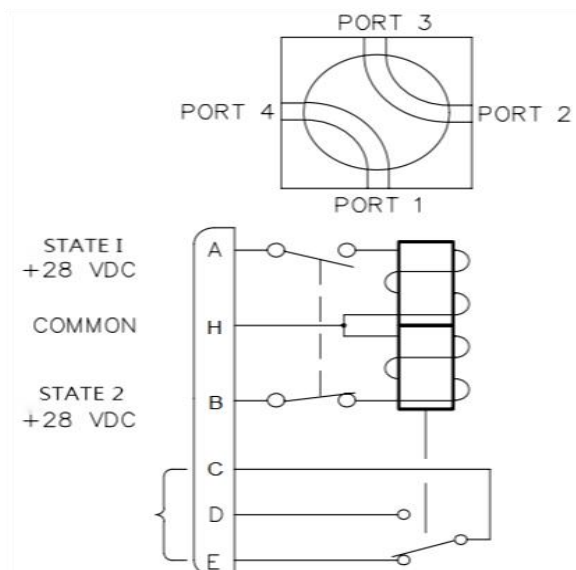
## Mechanical Specifications:

| Item                  | Specification                                            |
|-----------------------|----------------------------------------------------------|
| Switch State          | State 1: port1-port2 breakover<br>port3-port4 breakover  |
|                       | State 2: port1-port 4 breakover<br>port2-port3 breakover |
| Cycle Life            | 100000                                                   |
| RF Ports              | WR42 Waveguide Flange                                    |
| Socket                | JY3112E10-06PNL                                          |
| Matching Plug         | JY3116F10-06SNL                                          |
| Degrees of Protection | IP65                                                     |
| Weight                | < 0.6Kg                                                  |

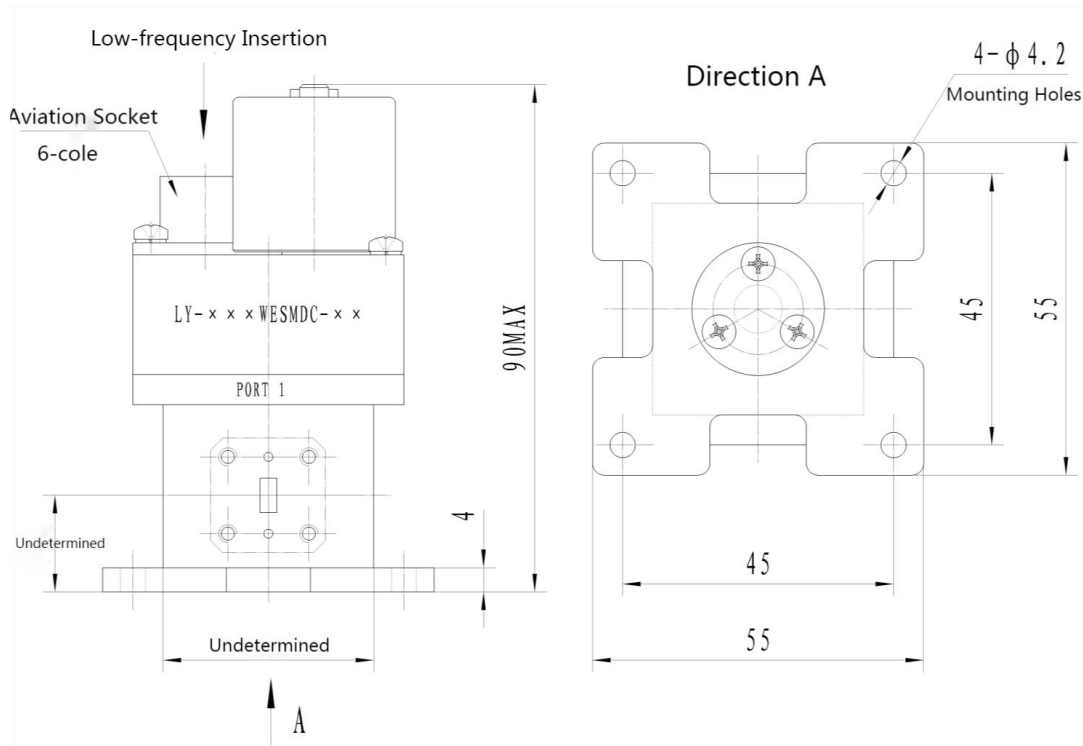
## Control Interfaces:

| Code | Definition | Note                                                                                                                                  |
|------|------------|---------------------------------------------------------------------------------------------------------------------------------------|
| A    | E1         | Switch state control signal, input signal ( $>50\text{ms}$ , $+28\text{v}$ ) , channel1-channel2 breakover channel3-channel4 breakove |
| G    | N/A        |                                                                                                                                       |
| B    | E2         | Switch state control signal, input signal ( $>50\text{ms}$ , $+28\text{v}$ ) , channel1-channel4 breakover channel2-channel3 breakove |
| C    | Ic         | Switch state control signal feedback signal common, which should be connected to the PGND of the feedback receiving circuit.          |
| D    | I1         | Pos.1 feedback signal, when channel1-channel2 breakover channel3-channel4 breakover, I1-Ic conduction                                 |
| E    | I2         | Pos. 2 feedback signal, when channel1-channel4 breakover channel2-channel3 breakover, I2-Ic conduction                                |
| H    | GND        | Earthing                                                                                                                              |

## R.F. PATHS:



## Outline & Mounting Schematic:



### Mounting Details:

#### Bottom Mounting Interfaces:

Mounting declensions: 55x55; Mounting hole pitch: 45x45; Mounting hole: 4x $\phi$ 4.5;

The hole distance tolerance:  $\pm 0.1$ ; The lug thickness: 4mm.

#### Waveguide Flange Interfaces:

12.7x13.46 - hole interfaces; Mounting hole: 4xM3 (hole depth  $\geq 5$ mm) ; The hole distance tolerance:  $\pm 0.02$ .

#### Low- frequency Position Interface:

Located at the top of the switch and the insertion direction is perpendicular to the mounting surface.

**Overall Dimensions:  $\leq 55 \times 55 \times 90$**