

## Electro-Mechanical Switches ( Waveguides)

### FEATURES:

- ❖ 3-110GHz
- ❖ Mechanical Simplicity
- ❖ High Repeatability of RF Performances
- ❖ Field Replaceable
- ❖ Small Size

### APPLICATIONS:

- ❖ Test Equipment
- ❖ Communication Systems
- ❖ Pulse Modulation
- ❖ Signal Switching



**CSM Series**

### DESCRIPTION:

Cernex's **CSM** series mechanical switches (Electro-Mech.) are available in standard waveguide sizes from 3 to 110.0 GHz and are designed to provide easy direct readout of frequency with a high degree of resolution and accuracy.

### SPECIFICATIONS:

#### Waveguide switches:

Waveguide Band	Ka	Kc	K	Ku	Xs	X	XI	Cs	C	CI	S
Waveguide Size	WR-28	WR-34	WR-42	WR-62	WR-75	WR-90	WR-112	WR-137	WR-159	WR-187	WR-229
Frequency Range (GHz)	26.5 - 40	22.0 - 33.0	18.0 - 26.5	12.4 - 18.0	10.0 - 15.0	8.2 - 12.4	7.0 - 10.0	5.85 - 8.2	4.9 - 7.05	3.95 - 5.85	3.5 - 4.2
Return Loss (dB) typ.	-23	-23	-23	-26	-28	-30	-28	-30	-30	-30	-32
Isolation (dB) typ.	55	55	60Min	70	70	70	70	70	70	80	70
Insertion Loss (dB) Max.	0.15	0.15	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Power handling (W)	400	500	1Kw	2.5Kw	5Kw	3.5Kw	5Kw	6Kw	5Kw	5Kw	-
Driving voltage	Optional DC: +/-24 or +/-48V AC: 15V or 220V										
C form contacts in standard units	2	2	2	4	4	4	4	4	4	4	4
Power connector ITT-KPTO2	E12-10P	E12-10P	E12-10P	614-19P	614-19P	E14-19P	E14-19P	614-19P	614-19P	614-19P	614-19P
Pressure capability PSIG including driving head	20	20	20	20	20	20	20	20	20	20	20
Operating temperature Degree C.	-40 to + 75										

## Electro-Mechanical Switches

Storage Temperature Degree C.	-50 to + 100
-------------------------------	--------------

NOTE: ALL STANDARD FLANGES ARE COVER FLANGES

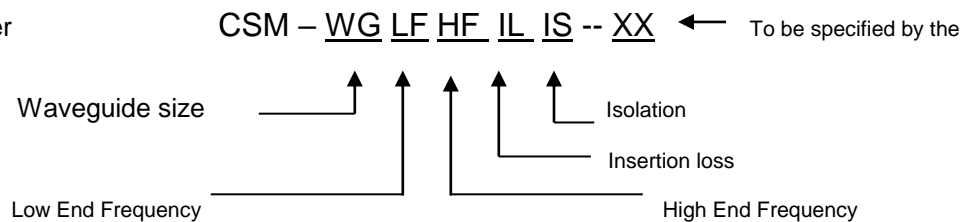
### Dual Switches:

Waveguide Band	Ku	Xs	Cs	S
Waveguide Size	WR-62	WR-75	WR-137	WR-229
Frequency Range (GHz)	17.0-18.4	10.0-15.0	5.82-8.2	3.5-4.2
Return Loss WG (dB) typ.	-28	-28	-30	-32
Isolation WG (dB) typ.	70	70	70	70
Insertion Loss WG (dB) Max.	0.05	0.05	0.05	0.05
Return Loss Coax (dB) typ.	-17	-17	-20	-20
Isolation Coax (dB) typ.	50	50	60	60
Insertion Loss Coax (dB) Max.	0.5	0.45	0.2	0.15
Isolation Wg/Coax (dB) typ.	120	120	120	120 min.
Power handling (W)	2Kw	2.5Kw	5Kw	-
Driving voltage	Optional	Optional	Optional	Optional
C form contacts in standard units	4	4	4	4
Power connector ITT-KPT02	614-19P	614-19P	614-19P	614-19P
Pressure capability PSIG including driving head	20	20	20	20
Operating temperature Degree C.	-40 to + 75	-40 to + 75	-40 to + 75	-40 to + 80
Storage Temperature Degree C.	-50 to + 100	-50 to + 100	-50 to + 100	-50 to + 100

NOTE: ALL STANDARD FLANGES ARE COVER FLANGES

### HOW TO ORDER:

Specify Model Number factory



**Example:** To order WR-90 mechanical switch with an insertion loss of 0.05 dB and Isolation of 70 dB, specify CSM-0812V570-XX

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE