Section 10

Waveguide Pressure Windows

Introduction

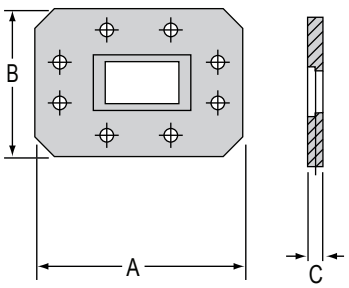
The MDL teflon/fiberglass pressure windows provide a seal within waveguide systems while passing microwave energy freely. The maintained pressure ensures maximum performance, and the seal prevents entry of moisture, dirt, and dust.

The teflon/fiberglass pressure flange windows will not hold a vacuum seal. These windows are made of aluminum base material with an iridite finish but can be made of copper alloy material with a silver plated finish on a special order basis.

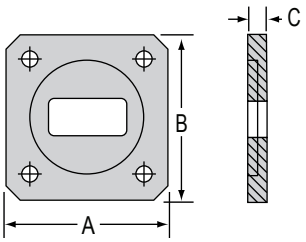
A safety factor is included in the power handling specifications of all MDL pressure windows.
All window surfaces are design-tested at atmospheric pressure with a one microsecond pulse at 1000pps repetition rate.

Pressure Windows waveguide

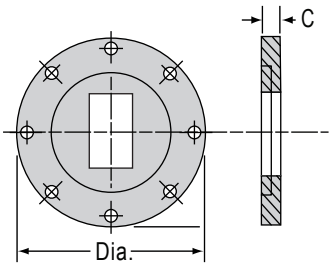
W/G SIZE	FREQ. RANGE (GHz)	MODEL NUMBER	ELECTRICAL DATA MAX. VSWR	PEAK POWER (KW) ***	MAX. PRESSURE (PSIG) *	STYLE NO.	MECHNICAL DATA LENGTH A	FRAME WIDTH B	THICKNESS C
Flange Windows									
WR28	26.5-40.0	28WT16	1.15	45	30/20	2	0.75	0.75	0.06
	34.0-36.0	28WT26	1.06	45	30/20	2	0.75	0.75	0.06
WR34	22.0-33.0	34WT16	1.15	50	30/20	2	0.87	0.87	0.06
WR42	18.0-26.0	42WT16	1.15	60	30/20	2	0.87	0.87	0.06
WR51	15.0-22.0	51WT16	1.10	100	45/45	2	1.31	1.31	0.12
WR62	12.4-18.0	62WT16	1.10	150	45/45	2	1.31	1.31	0.12
		62WT46	1.10	150	45/45	2	1.31	1.31	0.12
WR75	10.0-15.0	75WT16	1.10	300	45/45	2	1.50	1.50	0.12
WR90	8.2-12.4	90WT36-1	1.10	500	45/45	2	1.62	1.62	0.12
		90WT36-2	1.10	500	45/45	2	1.62	1.62	0.12
		90WT36-3	1.12	500	45/45	2	1.62	1.62	0.19
	10.2-10.6	90WT46	1.08	500	45/45	2	1.62	1.62	0.12
	8.2-12.4	90WT56•	1.10	500	45/45	2	1.62	1.62	0.37
	8.2-11.0	CPR90WT16	1.10	300	30/30	1	2.09	1.59	0.12
	8.2-12.4	90WT16	1.10	300	45/45	2	1.62	1.62	0.12
	8.5-9.6	90WT26	1.08	300	45/45	2	1.62	1.62	0.12
	8.2-12.4	90WT66ϕ	1.10	500	45/45	2	1.62	1.62	0.75
WR102	7.05-11.0	102WT16	1.10	800	45/45	2	1.68	1.68	0.12
WR112	7.05-10.0	CPR112WT16	1.10	500	30/30	1	2.50	1.75	0.12
	8.5-9.6	112WT26	1.08	500	45/45	2	1.87	1.87	0.12
	7.05-10.0	112WT16	1.10	500	45/45	2	1.87	1.87	0.12
WR137	5.85-8.2	137WT16	1.10	1000	45/45	3	3.12 Dia.		0.18
		CPR137WT16	1.10	1000	30/30	1	2.69	1.94	0.19
WR187	3.95-5.85	187WT16	1.10	1500	45/45	3	3.62 Dia.		0.25
		CPR187WT16	1.10	1500	30/30	1	3.50	2.50	0.25
WR229	3.3-4.9	CPR229WT16	1.10	1750	30/30	1	3.88	2.75	0.25
WR284	2.6-3.95	284WT16	1.10	2000	45/45	3	5.31 Dia.		0.25
		CPR284WT16	1.10	2000	45/45	1	4.50	3.00	0.25



STYLE 1



STYLE 2



STYLE 3

Notes:

* *The higher number indicates maximum pressure applied to the insert side of the window.*
The other number is the max. pressure applied to the opposite side of the window provided the insert side is supported by a cover flange.

• *Choke/flat window adapter.*
Flange configuration other than those shown are available on special order.

ϕ *Choke/choke window adapter.*

∅ *Nominal, .xx = 0.020 inches.*

** *90WT36 groove equivalent to WR90 choke "O" ring groove.*
MOD 1 with groove on insert side.
MOD 2 with groove on flat side.
MOD 3 with groove on both sides

*** *Duty cycle .001*