



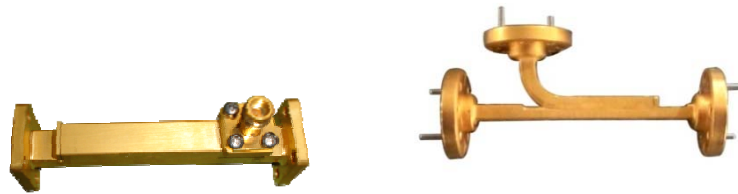
【Ordering Information】

Example Part No: VT 100 WHC 30 S C

Vector Telecom | Material: A=Aluminum C=Copper
 WG Type: R100 | Coax Connector Type: N=Type N, S=SMA, 2.92 =K 2.92mm, 2.4=2.4mm, TNC=TNC
 Product Type: WG Loop Coupler | Coupling: C=30dB
 DRWHC: Double Ridge WG Loop Coupler

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

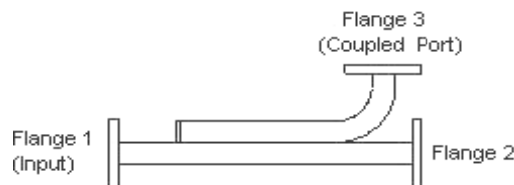
8.3 Broadwall Directional Coupler



Vector Telecom manufactures a standard product line of multi-hole broadwall directional couplers covering a wide frequency range. The optimum electrical characteristics of high directivity and coupling flatness are achieved utilizing a precision machined Tchebyscheff coupling hole distribution and a precision ground tapered load element in the secondary arm. Directional couplers are typically used for power sampling, frequency monitoring, especially in the test setups where power reflection measurements are required. Additional sizes and special configurations are available on request.

8.3.1 Broadwall Directional Coupler

Style 1 — 3 Waveguide Ports



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling ** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
		Main Line	Secondary Line			IEC	EIA		
VT14WC...	1.13-1.73	1.10	1.15	3-60	20-38	R14	WR650	FDP/FDM	Al/Cu
VT18WC...	1.45-2.20	1.10	1.15	3-60	20-38	R18	WR510	FDP/FDM	Al/Cu



Section 1

Waveguide Components

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Waveguide Coupler



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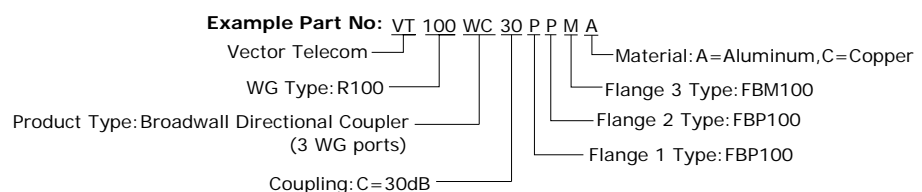
Model No*	Freq Range (GHz)	VSWR (Max)		Coupling ** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
		Main Line	Secondary Line			IEC	EIA		
VT22WC...	1.72-2.61	1.10	1.15	3-60	20-38	R22	WR430	FDP/FDM	Al/Cu
VT26WC...	2.17-3.30	1.10	1.15	3-60	20-38	R26	WR340	FDP/FDM	Al/Cu
VT32WC...	2.60-3.95	1.10	1.15	3-60	20-38	R32	WR284	FDP/FDM	Al/Cu
VT40WC...	3.22-4.90	1.08	1.12	3-60	20-38	R40	WR229	FDP/FDM	Al/Cu
VT48WC...	3.94-5.99	1.08	1.12	3-60	20-38	R48	WR187	FDP/FDM	Al/Cu
VT58WC...	4.64-7.05	1.08	1.12	3-60	20-38	R58	WR159	FDP/FDM	Al/Cu
VT70WC...	5.38-8.17	1.08	1.12	3-60	20-38	R70	WR137	FDP/FDM	Al/Cu
VT84WC...	6.57-9.99	1.08	1.12	3-60	20-38	R84	WR112	FDP/FDM	Al/Cu
VT100WC...	8.20-12.40	1.08	1.12	3-60	20-38	R100	WR90	FDP/FDM	Al/Cu
VT120WC...	9.84-15.0	1.08	1.12	3-60	20-38	R120	WR75	FDP/FDM	Al/Cu
VT140WC...	11.9-18.0	1.10	1.15	3-60	20-38	R140	WR62	FDP/FDM	Al/Cu
VT180WC...	14.5-22.0	1.10	1.15	3-60	20-38	R180	WR51	FDP/FDM	Al/Cu
VT220WC...	17.6-26.7	1.10	1.15	3-60	20-38	R220	WR42	FDP/FDM	Al/Cu
VT260WC...	21.7-33.0	1.10	1.15	3-60	20-38	R260	WR34	FDP/FDM	Al/Cu
VT320WC...	26.3-40.0	1.10	1.15	3-60	20-38	R320	WR28	FDP/FDM	Al/Cu
VT400WC...	33.0-50.0	1.10	1.25	3-60	20-38	R400	WR22	FUGP	Cu
VT500WC...	40.0-60.0	1.10	1.25	3-60	20-38	R500	WR19	FUGP	Cu
VT620WC...	50.0-75.0	1.10	1.25	3-60	20-38	R620	WR15	FUGP	Cu
VT740WC...	60.0-90.0	1.10	1.25	3-60	20-38	R740	WR12	FUGP	Cu
VT900WC...	75.0-110.0	1.10	1.25	3-60	20-38	R900	WR10	FUGP	Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$ Frequency Sensitivity: $\pm 1\text{ dB}$

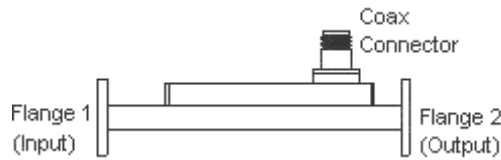
*** These units are supplied with 2.92mm (K-type) connectors

【Ordering Information】



- Finish: Corrosion protection plus black top coat
- Flange type: Multiple types available - see VT Flanges page

Style 2 — 2 Waveguide Ports, 1 Coax Port



Section 1

Waveguide
Components

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Waveguide
Coupler



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【Specifications】

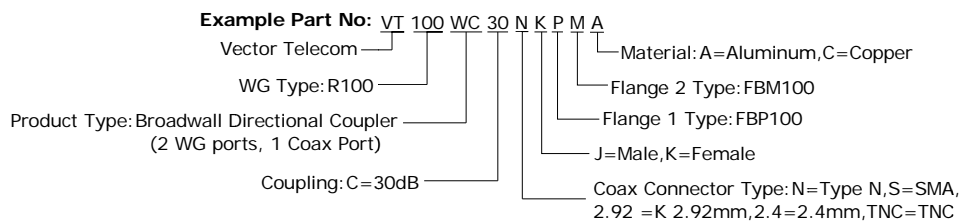
Model No*	Freq Range (GHz)	VSWR (Max)		Coupling ** (dB)	Directivity (Min) (dB)	Coax Type	WG Type		Flange	Material
		Main Line	Sec. Line				IEC	EIA		
VT14WC...N	1.13-1.73	1.10	1.25	3-40	20-38	N	R14	WR650	FDP/FDM	Al/Cu
VT18WC...N	1.45-2.20	1.10	1.25	3-40	20-38	N	R18	WR510	FDP/FDM	Al/Cu
VT22WC...N	1.72-2.61	1.10	1.25	3-40	20-38	N	R22	WR430	FDP/FDM	Al/Cu
VT26WC...N	2.17-3.30	1.10	1.25	3-40	20-38	N	R26	WR340	FDP/FDM	Al/Cu
VT32WC...N	2.60-3.95	1.10	1.25	3-40	20-38	N	R32	WR284	FDP/FDM	Al/Cu
VT40WC...N	3.22-4.90	1.08	1.25	3-40	20-38	N	R40	WR229	FDP/FDM	Al/Cu
VT48WC...N	3.94-5.99	1.08	1.25	3-40	20-38	N	R48	WR187	FDP/FDM	Al/Cu
VT58WC...N	4.64-7.05	1.08	1.25	3-40	20-38	N	R58	WR159	FDP/FDM	Al/Cu
VT70WC...N	5.38-8.17	1.08	1.25	3-40	20-38	N	R70	WR137	FDP/FDM	Al/Cu
VT84WC...N	6.57-9.99	1.08	1.25	3-40	20-38	N	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WC...N	8.20-12.40	1.08	1.25	3-40	20-38	N	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WC...S	9.84-15.0	1.08	1.25	3-40	20-38	SMA	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WC...S	11.9-18.0	1.10	1.25	3-40	20-38	SMA	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WC...S	14.5-22.0	1.10	1.25	3-40	20-38	SMA	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WC...K	17.6-26.7	1.10	1.50	3-40	20-38	K***	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WC...K	21.7-33.0	1.10	1.50	3-40	20-38	K***	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WC...K	26.3-40.0	1.10	1.50	3-40	20-38	K***	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: $\pm 0.7\text{dB}$ Frequency Sensitivity: $\pm 1\text{ dB}$

*** These units are supplied with 2.92mm (K-type) connectors

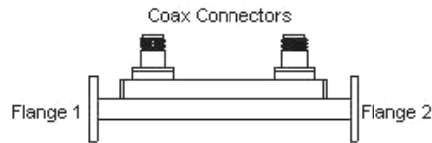
【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



Style 3 — 2 Waveguide Ports, 2 Coax Ports



【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling ** (dB)	Directivity (Min) (dB)	Coax Type	WG Type		Flange	Material
		Main Line	Sec. Line				IEC	EIA		
VT14WUC...N	1.13-1.73	1.10	1.25	3-40	20-25	N	R14	WR650	FDP/FDM	Al/Cu
VT18WUC...N	1.45-2.20	1.10	1.25	3-40	20-25	N	R18	WR510	FDP/FDM	Al/Cu
VT22WUC...N	1.72-2.61	1.10	1.25	3-40	20-25	N	R22	WR430	FDP/FDM	Al/Cu
VT26WUC...N	2.17-3.30	1.10	1.25	3-40	20-25	N	R26	WR340	FDP/FDM	Al/Cu
VT32WUC...N	2.60-3.95	1.10	1.25	3-40	20-25	N	R32	WR284	FDP/FDM	Al/Cu
VT40WUC...N	3.22-4.90	1.08	1.25	3-40	20-25	N	R40	WR229	FDP/FDM	Al/Cu
VT48WUC...N	3.94-5.99	1.08	1.25	3-40	20-25	N	R48	WR187	FDP/FDM	Al/Cu
VT58WUC...N	4.64-7.05	1.08	1.25	3-40	20-25	N	R58	WR159	FDP/FDM	Al/Cu
VT70WUC...N	5.38-8.17	1.08	1.25	3-40	20-25	N	R70	WR137	FDP/FDM	Al/Cu
VT84WUC...N	6.57-9.99	1.08	1.25	3-40	20-25	N	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WUC...N	8.20-12.40	1.08	1.25	3-40	20-25	N	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WUC...S	9.84-15.0	1.08	1.25	3-40	20-25	SMA	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WUC...S	11.9-18.0	1.10	1.25	3-40	20-25	SMA	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WUC...S	14.5-22.0	1.10	1.25	3-40	20-25	SMA	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WUC...K	17.6-26.7	1.10	1.50	3-40	20-25	K***	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WUC...K	21.7-33.0	1.10	1.50	3-40	20-25	K***	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WUC...K	26.3-40.0	1.10	1.50	3-40	20-25	K***	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: ± 0.7 dB Frequency Sensitivity: ± 1 dB

*** These units are supplied with 2.92mm (K-type) connectors.

【Ordering Information】

Example Part No: VT 100 WUC 30 N K P M A

Vector Telecom ————

WG Type: R100 ————

Product Type: Broadwall Directional Coupler (2 WG ports, 2 Coax Ports) ————

Coupling: C=30dB ————

Material: A=Aluminum, C=Copper ————

Flange 2 Type: FBM100 ————

Flange 1 Type: FBP100 ————

J=Male, K=Female ————

Coax Connector Type: N=Type N, S=SMA, 2.92 =K 2.92mm, 2.4=2.4mm, TNC=TNC ————

- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

Style 4 — Dual-arm Broadwall Directional Coupler 4 Waveguide Ports



Section 1

Waveguide
Components

08

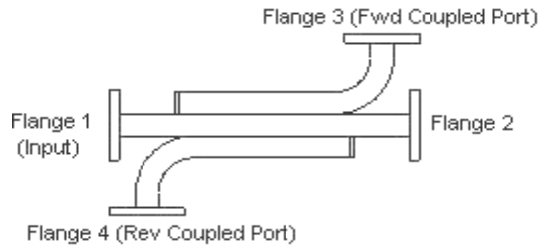
Waveguide
Coupler



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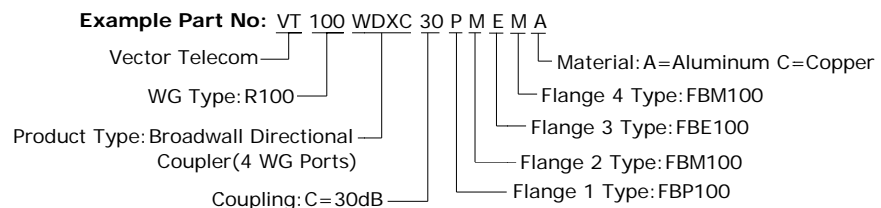
【Specifications】

Model No*	Freq Range (GHz)	VSWR (Max)		Coupling** (dB)	Directivity (Min) (dB)	WG Type		Flange	Material
		Main Line	Secondary Line			IEC	EIA		
VT26WDXC...	2.17-3.30	1.08	1.12	3-40	20-38	R26	WR340	FDP/FDM	Al/Cu
VT32WDXC...	2.60-3.95	1.08	1.12	3-40	20-38	R32	WR284	FDP/FDM	Al/Cu
VT40WDXC...	3.22-4.90	1.08	1.12	3-40	20-38	R40	WR229	FDP/FDM	Al/Cu
VT48WDXC...	3.94-5.99	1.08	1.12	3-40	20-38	R48	WR187	FDP/FDM	Al/Cu
VT58WDXC...	4.64-7.05	1.08	1.12	3-40	20-38	R58	WR159	FDP/FDM	Al/Cu
VT70WDXC...	5.38-8.17	1.08	1.12	3-40	20-38	R70	WR137	FDP/FDM	Al/Cu
VT84WDXC...	6.57-9.99	1.08	1.12	3-40	20-38	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WDXC...	8.20-12.40	1.08	1.12	3-40	20-38	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WDXC...	9.84-15.0	1.08	1.12	3-40	20-38	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WDXC...	11.9-18.0	1.10	1.15	3-40	20-38	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WDXC...	14.5-22.0	1.10	1.15	3-40	20-38	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WDXC...	17.6-26.7	1.10	1.15	3-40	20-38	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WDXC...	21.7-33.0	1.10	1.15	3-40	20-38	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WDXC...	26.3-40.0	1.10	1.15	3-40	20-38	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number.

**Nominal Accuracy: ± 0.7 dB Frequency Sensitivity: ± 1 dB

【Ordering Information】

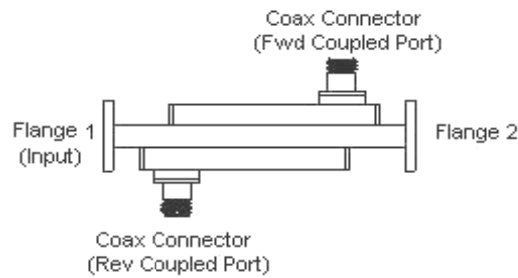


- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



Style 5 — Dual-arm Broadwall Directional Coupler

2 Waveguide Ports, 2 Coax Ports



【Specifications】

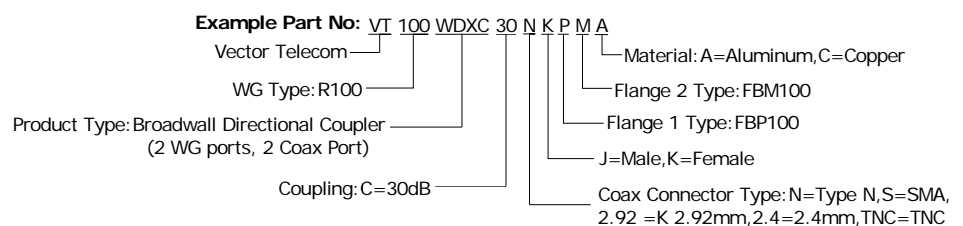
Model No*	Freq Range (GHz)	VSWR (Max)		Coupling ** (dB)	Directivity (Min) (dB)	Coax Type	WG Type		Flange	Material
		Main Line	Secondary Line				IEC	EIA		
VT26WDXC...N	2.17-3.30	1.10	1.25	3-40	20-38	N	R26	WR340	FDP/FDM	Al/Cu
VT32WDXC...N	2.60-3.95	1.10	1.25	3-40	20-38	N	R32	WR284	FDP/FDM	Al/Cu
VT40WDXC...N	3.22-4.90	1.08	1.25	3-40	20-38	N	R40	WR229	FDP/FDM	Al/Cu
VT48WDXC...N	3.94-5.99	1.08	1.25	3-40	20-38	N	R48	WR187	FDP/FDM	Al/Cu
VT58WDXC...N	4.64-7.05	1.08	1.25	3-40	20-38	N	R58	WR159	FDP/FDM	Al/Cu
VT70WDXC...N	5.38-8.17	1.08	1.25	3-40	20-38	N	R70	WR137	FDP/FDM	Al/Cu
VT84WDXC...N	6.57-9.99	1.08	1.25	3-40	20-38	N	R84	WR112	FBP/FBM/FBE	Al/Cu
VT100WDXC...N	8.20-12.40	1.08	1.25	3-40	20-38	N	R100	WR90	FBP/FBM/FBE	Al/Cu
VT120WDXC...S	9.84-15.0	1.08	1.25	3-40	20-38	SMA	R120	WR75	FBP/FBM/FBE	Al/Cu
VT140WDXC...S	11.9-18.0	1.10	1.25	3-40	20-38	SMA	R140	WR62	FBP/FBM/FBE	Al/Cu
VT180WDXC...S	14.5-22.0	1.10	1.25	3-40	20-38	SMA	R180	WR51	FBP/FBM/FBE	Al/Cu
VT220WDXC...K	17.6-26.7	1.10	1.50	3-40	20-38	K***	R220	WR42	FBP/FBM/FBE	Al/Cu
VT260WDXC...K	21.7-33.0	1.10	1.50	3-40	20-38	K***	R260	WR34	FBP/FBM/FBE	Al/Cu
VT320WDXC...K	26.3-40.0	1.10	1.50	3-40	20-38	K***	R320	WR28	FBP/FBM/FBE	Al/Cu

*Indicates Model Number. See Ordering Information for complete part number

**Nominal Accuracy: ± 0.7 dB Frequency Sensitivity: ± 1 dB

*** These units are supplied with 2.92mm (K-type) connectors

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat



8.3.2 Double Ridged Broadwall Directional Coupler

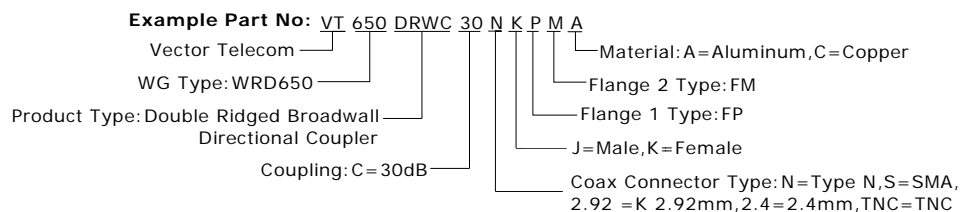


【DRWC Specifications】

Model No*	WG Type EIA	Freq Range (GHz)	Optional Coupling.. (dB)	Coupling Flatness (dB)	Directivity (dB)	Main line VSWR	Secondary line VSWR	Flange	Connector	Material
VT84DRWC...N	WRD84	0.84-2	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT150DRWC...N	WRD150	1.5-3.6	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT200DRWC...N	WRD200	2-4.8	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT250DRWC...N	WRD250	2.6-7.8	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT350DRWC...N	WRD350	3.5-8.2	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT475DRWC...N	WRD475	4.75-11	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT500DRWC...N	WRD500	5-18	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT580DRWC...N	WRD580	5.8-16	20~60	±1.5	≥25	1.10	1.50	FP	N Female	Al
VT650DRWC...N	WRD650	6.5-18	20~60	±1.5	≥25	1.10	1.5	FP	N Female	Al
VT750DRWC...N	WRD750	7.5-18	20~60	±1.5	≥25	1.10	1.25	FP	N Female	Al
VT700DRWC...N	WRD700	7-18.5	20~60	±1.5	≥25	1.10	1.25	FP	N Female	Al
VT1100DRWC...N	WRD110	11-26.5	20~60	±1.5	≥25	1.10	1.25	FP	SMA Female	Cu
VT1800DRWC...N	WRD180	18-40	20~60	±1.5	≥25	1.10	1.25	FP	SMA Female	Cu

*Indicates Model Number. See Ordering Information for complete part number.

【Ordering Information】



- Flange type: Multiple types available - see VT Flanges page
- Finish: Corrosion protection plus black top coat

8.4 Waveguide Probe Coupler

