

# CONTROL DRAWING

microbend 2MTR-XX

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NOTES:

- DESCRIPTION,  
CABLE ASSEMBLY, SMPM-T THREADED FEMALE TO SMPM-T THREADED FEMALE, RUGGEDIZED AND SUITABLE FOR COMPLEX, CONGESTED INSTALLATIONS. WHEN INSTALLED AND BEND AT THE MINIMUM BEND RADIUS, CABLE ASSEMBLY WILL TOLERATE MULTIPLE  $\pm 90^\circ$  ROTATIONS AT THE CABLE CONNECTOR JUNCTION. THE RETAINING NUT GUARANTEES FULL AND CONSTANT SMPM-T CONNECTOR MATING DURING VIBRATION AND SHOCK.
- CABLE,  
COAXIAL CABLE HUBER+SUHNER Astrolab P/N 32041E. MEETS OR EXCEEDS MIL-DTL-17. SEE HUBER+SUHNER Astrolab CONTROL DRAWING FOR MATERIALS AND FINISHES.
- CONNECTOR -A-, SMPM-T THREADED FEMALE:  
HUBER+SUHNER Astrolab P/N 29971TCR-32-41  
INTERFACE DIMENSIONS IAW MIL-STD-348.  
SEE HUBER+SUHNER Astrolab CONTROL DRAWING FOR MATERIALS AND FINISHES.
- CONNECTOR -B-, SMPM-T THREADED FEMALE:  
SAME AS CONNECTOR -A-.

NOTES CONTINUED:

- MARKING:  
ALL MARKING WILL BE DONE ON PACKAGING.
- ELECTRICAL CHARACTERISTICS:  
IMPEDANCE,  
50.0 Ohms NOMINAL.  
FREQUENCY, INSERTION LOSS AND VSWR  
SEE CHART.
- MECHANICAL:  
OPERATING TEMPERATURE RANGE,  
 $-55^\circ\text{C}$  TO  $+125^\circ\text{C}$ .  
TORQUE RETAINING NUT TO  $22.0 \pm 2.0$  IN-Oz  
 $[0.155 \text{ Nm} \pm 0.014 \text{ Nm}]$ .
- ATTENUATION FORMULAS:  
8A. CALCULATE AT 18.0 GHz  
(dB) =  $1.46 \text{ dB/FT.} \times L(\text{ft.}) + .44 \text{ dB}$   
8B. CALCULATE AT 40.0 GHz  
(dB) =  $2.25 \text{ dB/FT.} \times L(\text{ft.}) + .80 \text{ dB}$

HUBER+SUHNER Astrolab PART NUMBER	DIMENSION "L"	2.0 GHz		12.0 GHz		18.0 GHz		40.0 GHz	
		VSWR	I.L. dB	VSWR	I.L. dB	VSWR	I.L. dB	VSWR	I.L. dB
microbend 2MTR-2	2.00 [50.8]	1.25:1	0.29	1.35:1	0.55	1.50:1	0.66	1.65:1	1.18
microbend 2MTR-2.5	2.50 [63.5]	1.25:1	0.30	1.35:1	0.60	1.50:1	0.74	1.65:1	1.27
microbend 2MTR-3	3.00 [76.2]	1.25:1	0.32	1.35:1	0.65	1.50:1	0.81	1.65:1	1.36
microbend 2MTR-3.5	3.50 [88.9]	1.25:1	0.33	1.35:1	0.70	1.50:1	0.87	1.65:1	1.46
microbend 2MTR-4	4.00 [101.6]	1.25:1	0.35	1.35:1	0.75	1.50:1	0.93	1.65:1	1.55
microbend 2MTR-4.5	4.50 [114.3]	1.25:1	0.37	1.35:1	0.80	1.50:1	0.99	1.65:1	1.64
microbend 2MTR-5	5.00 [127.0]	1.25:1	0.39	1.35:1	0.85	1.50:1	1.05	1.65:1	1.74
microbend 2MTR-5.5	5.50 [139.7]	1.25:1	0.41	1.35:1	0.90	1.50:1	1.11	1.65:1	1.83
microbend 2MTR-6	6.00 [152.4]	1.25:1	0.43	1.35:1	0.95	1.50:1	1.17	1.65:1	1.93
microbend 2MTR-6.5	6.50 [165.1]	1.25:1	0.45	1.35:1	1.00	1.50:1	1.23	1.65:1	2.02
microbend 2MTR-7	7.00 [177.8]	1.25:1	0.47	1.35:1	1.04	1.50:1	1.29	1.65:1	2.11
microbend 2MTR-8	8.00 [203.2]	1.25:1	0.51	1.35:1	1.14	1.50:1	1.41	1.65:1	2.30
microbend 2MTR-9	9.00 [228.6]	1.25:1	0.55	1.35:1	1.24	1.50:1	1.54	1.65:1	2.49
microbend 2MTR-10	10.00 [254.0]	1.25:1	0.58	1.35:1	1.34	1.50:1	1.66	1.65:1	2.68
microbend 2MTR-11	11.00 [279.4]	1.25:1	0.62	1.35:1	1.43	1.50:1	1.78	1.65:1	2.86
microbend 2MTR-12	12.00 [304.8]	1.25:1	0.66	1.35:1	1.53	1.50:1	1.90	1.65:1	3.05
microbend 2MTR-		1.25:1		1.35:1		1.50:1		1.65:1	

SEE NOTE 8

UNLESS OTHERWISE SPECIFIED  
CONCENTRICITY .004 T.I.R.  
CORNERS AND FILLETS .005  
MAX. RADIUS OR CHAMFER.  
SURFACE FINISH 63 RMS  
MICROINCHES OR BETTER.

FRACTIONS	$\pm 1/16$
X	$\pm .030$
XX	$\pm .015$
XXX	$\pm .005$
ANGLES	$\pm 1^\circ$
DO NOT SCALE DRAWING	

NAME	DATE
PREP. GSG	02/27/09
ELEC. RF	06/13/11
MECH. AW	03/03/09
Q.C.	

THIS DRAWING CONTAINS PATENTABLE AND PROPRIETARY INFORMATION. THE DESIGN CANNOT BE USED WITHOUT WRITTEN PERMISSION OF HUBER + SUHNER ASTROLAB.

TITLE <b>CABLE ASSEMBLY, SMPM-T THREADED FEMALE TO SMPM-T THREADED FEMALE</b>		SCALE 2:1	CODE IDENT. 16301	DWG NO. microbend 2MTR-XX	REV F
THDS. TO BE IN ACCORD WITH U.S. DEPT. OF COMM. SCREW THD. STDS. FOR FEDERAL SERVICES 1950 SUPL. TO HANDBOOK H 28.					

**ROHS 6 COMPLIANT**

F	ECN No. 15903	10/29/13	EB	
REV.	DESCRIPTION	DATE	BY	APPROVED