



M&P

HyperFlex 13 / .500"

EXTRAFLEXIBLE

UV resistant PVC jacket.

PVC Ø 12,7 ± 0,15 mm
(0,500 inches)



High resistance copper clad aluminium screen (CCA) made by means of **24 spools** braiding machines. (50% more crossovers if compared to traditional 16 spools machines.) This braid is **HIGHLY EFFECTIVE AGAINST LOW FREQUENCY IMPULSIVE NOISES.**

SCREENING

PERCENTAGE: 70% 168 wires

Screening foil, highly effective against high frequency interferences. The copper foil has an applied PE-coating, placed in order to prevent foil cracking due to short radius bends.

**SCREENING PERCENTAGE 100%
CU-POL**

ATTENUATION at 20°C

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,47	0,14
3,5 MHz	0,55	0,17
7,0 MHz	0,71	0,22
10 MHz	0,85	0,26
14 MHz	1,0	0,30
21 MHz	1,25	0,38
28 MHz	1,46	0,45
50 MHz	1,93	0,59
100 MHz	2,88	0,88
144 MHz	3,6	1,10
200 MHz	4,28	1,30
400 MHz	6,19	1,89
430 MHz	6,41	1,95
800 MHz	9,0	2,74
1000 MHz	10,14	3,09
1296 MHz	11,7	3,57
2400 MHz	16,68	5,08
3000 MHz	18,9	5,76
4000 MHz	22,45	6,84
5000 MHz	25,68	7,83
6000 MHz	28,71	8,75
7000 MHz	31,71	31,71
8000 MHz	34,57	10,54
9000 MHz	37,5	11,43
10.000 MHz	40,5	12,34
12.000 MHz	46,0	14,02

Inner conductor made of 37x0,56 stranded, geometric and concentric annealed copper wires. Purity 99,99%. (annealed = thermal softening process) (37x0,022 inches)

Cu 37x0,56 mm - Ø 3.9 mm
(0,153 inches)

High pressure physical injection foamed polyethylene, **TRIPLE LAYER DIELECTRIC.**
FPE Ø 9,9 ± 0,05 mm

ELECTRICAL DATA

Impedance @200MHz: 50 Ohm ± 3
 Minimum bending radius:
 Multiple bends(15)/single bend 127/80 mm
 Temperature range:

installation -40° to +60° C
 operative -55° to +85° C

Capacitance: 75 pF/m ± 2
 Velocity ratio: 86 %
 Screening efficiency:
 100-2000 MHz >105 dB
 Class A++
 Inner conductor resistance: 2 Ohm/Km
 Outer conductor resistance: 12 Ohm/Km
 Tension test (spark test): 8 kV
 Weight (100m): 17,4 Kg
 Maximum peak power: 20 KWATT

SRL

0,3-600 MHz >30 dB
 600-1200 MHz >25 dB
 1200-2000 MHz >20 dB

POWER HANDLING (at 40°C/104°F)

FREQUENCY	MAXP	FREQUENCY	MAXP
1,8 MHz	14681 W	800 MHz	1022 W
3,5 MHz	12650 W	1000 MHz	907 W
7,0 MHz	9880 W	1296 MHz	786 W
10 MHz	8321 W	2400 MHz	552 W
14 MHz	7130 W	3000 MHz	487 W
21 MHz	5732 W	4000 MHz	410 W
28 MHz	4962 W	5000 MHz	358 W
50 MHz	3873 W	6000 MHz	320 W
100 MHz	2795 W	7000 MHz	290 W
144 MHz	2396 W	8000 MHz	266 W
200 MHz	2150 W	9000 MHz	245 W
400 MHz	1486 W	10.000 MHz	227 W
430 MHz	1435 W	12.000 MHz	200 W

Due to the dimensional parameters of this cable, the frequency of 2500 MHz +/- 15 Mhz is not usable.

Our products are manufactured in compliance with: CEI 46-1 (construction parameters); EN 50117(screening efficiency); CEI EN 50289(SA test methods); IEC 60332-1-2(cables with LSZH jacket)



Given a power fed to the X value (any value expressed in Watts), the actual power output of the cable is shown in the table in the form of remaining percentage. (for example, if we use a cable such as

M&P-HYPERFLEX 13, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 74.7 % of 1000).

For maximum applicable power, see the Power Handling of the cable concerned. From these values, have already been deducted the SRL values, typical of each one of our models, for the respective frequencies.

REMEMBER: Make sure to match the line accurately!

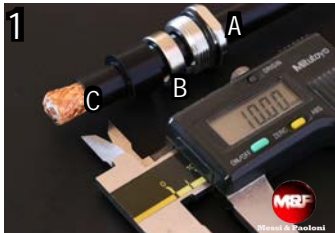
		M&P-HYPERFLEX 13														
		length --->	16,4	32,8	49,2	65,6	82	114,8	164	246	328	426,5	524,9	656,2	984,2	feet
Wave length	MHz	5	10	15	20	25	35	50	75	100	130	160	200	300	m	
Frequencies / Frequenze	85.71 m	3,5	99,3	98,6	98,0	97,4	96,8	95,6	93,8	90,8	88,0	84,7	81,6	77,5	68,3	Useful signal output (residual power %)
	42.85 m	7	99,1	98,3	97,5	96,7	95,9	94,3	92,1	88,4	84,8	80,8	76,9	72,0	61,1	
	21.42 m	14	98,8	97,6	96,5	95,4	94,3	92,2	89,0	84,0	79,3	74,0	69,1	63,0	50,0	
	10.71 m	28	98,2	96,6	95,0	93,4	91,8	88,8	84,4	77,6	71,3	64,5	58,3	51,0	36,4	
	6 m	50	97,7	95,6	93,5	91,4	89,4	85,5	80,0	71,6	64,0	56,0	49,0	41,0	26,3	
	2 m	144	95,8	91,9	88,2	84,6	81,2	74,7	66,0	53,6	43,6	33,9	26,4	19,0	8,2	
	69 cm	430	92,7	86,1	80,0	74,3	69,0	59,5	47,6	32,9	22,7	14,5	9,3	5,1		
	23.1 cm	1296	86,7	75,8	66,1	57,7	50,4	38,3	25,4	12,6	6,1					
	12.5 cm	2400	81,9	67,5	55,6	45,8	37,7	25,4	14,0	5,0						
	10 cm	3000	79,4	63,7	51,1	40,9	32,7	20,8	10,4							
	7.5 cm	4000	76,2	58,6	45,1	34,6	26,5	15,4	6,5							
	6 cm	5000	73,4	54,4	40,2	29,6	21,8	11,6	4,2							
	5 cm	6000	70,3	50,0	35,5	25,1	17,6	8,3								
	3.75 cm	8000	65,6	43,5	28,7	18,8	12,1	4,6								
	3 cm	10.000	59,6	36,2	21,5	12,3	6,6									
	2.5 cm	12.000	55,7	31,5	17,3	8,9	3,9									

M&P-HYPERFLEX 13 (Power Handling/Temperature)

		Temperature C° / F°											
Wave length	MHz	-10 / 14	-5 / 23	0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	60 / 140	70 / 158		
Frequencies / Frequenze	166.66 m	1,8	18000	18000	18000	18000	18000	16501	14681	12523	10365	8221	WATT
	85.71 m	3,5	18000	18000	18000	17204	15838	14219	12650	10790	8931	7084	
	42.85 m	7	15295	14781	14346	13437	12370	11105	9880	8428	6975	5533	
	30 m	10	12880	12448	12081	11316	10417	9352	8321	7097	5874	4660	
	21.42 m	14	11037	10666	10353	9697	8927	8014	7130	6082	5034	3993	
	14.28 m	21	8873	8574	8322	7795	7176	6442	5732	4889	4047	3210	
	10.71 m	28	7682	7424	7205	6749	6213	5578	4962	4233	3503	2779	
	6 m	50	5995	5794	5624	5267	4849	4353	3873	3304	2734	2169	
	3 m	100	4327	4182	4059	3801	3500	3142	2795	2384	1973	1565	
	2.08 m	144	3709	3584	3479	3258	3000	2693	2396	2044	1691	1342	
	1.5 m	200	3327	3216	3121	2923	2691	2416	2150	1834	1518	1204	
	75 cm	400	2301	2223	2158	2021	1861	1671	1486	1268	1049	832	
	69 cm	430	2222	2147	2084	1952	1797	1613	1435	1224	1013	804	
	37.5 cm	800	1582	1529	1484	1390	1280	1149	1022	872	722	572	
	30 cm	1000	1404	1357	1317	1234	1136	1020	907	774	641	508	
	23.1 cm	1296	1217	1176	1142	1069	984	884	786	671	555	440	
	12.5 cm	2400	854	825	801	750	691	620	552	470	389	309	
	10 cm	3000	754	728	707	662	609	547	487	415	344	273	
	7.5 cm	4000	634	613	595	557	513	461	410	350	289	229	
6 cm	5000	555	536	520	487	449	403	358	306	253	201		
5 cm	6000	496	479	465	436	401	360	320	273	226	179		
4.2 cm	7000	449	434	421	395	363	326	290	247	205	162		
3.75 cm	8000	412	398	386	362	333	299	266	227	188	149		
3.3 cm	9000	380	367	356	334	307	276	245	209	173	137		
3 cm	10.000	352	340	330	309	284	255	227	194	160	127		
2.5 cm	12.000	310	299	290	272	250	225	200	171	141	112		

Connector assembly

Connector "N" type : C.N.UF13M-S



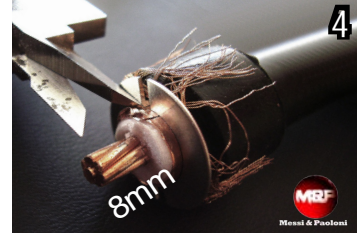
1 Insert in the cable components A, B, C and immediately after, make a circular cut on the black PVC jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.



2 Insert component D after having opened the braid as shown in the picture. Push component D between the foil and the braid until it stops against the black PVC jacket.



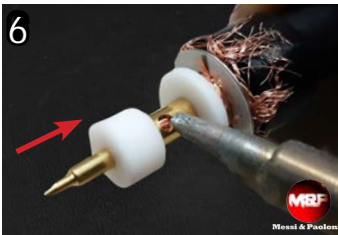
3 Flatten the wires as shown in the picture and cut the excess.



4 Cut and remove the tape and dielectric for a length as shown in the picture (8mm).



5 Insert the first teflon disc like in the above picture.



6 Insert the second teflon disc like in the above picture and subsequently the central pin. Solder the pin to the inner conductor, inserting tin in the provided hole. Avoid heating the pin for a too long time in order not to damage with excessive heat the cable dielectric (which is not made in teflon!)



7 Insert the connector and fasten accurately until the o-ring present in component A, will be pressed against the connector body. Inside, the rubber component C (pic. 1) will expand, granting optimal sealing against moisture and a perfect contact to ground.

CONNECTORS AVAILABLE FOR M&P-HYPERFLEX 13

C.N.UF13M-S



C.UHF.ULTRAFLEX13-MSL



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