



M&P HyperFlex 10

EXTRAFLEXIBLE

UV resistant PVC jacket.

PVC Ø 10,3 ± 0,15 mm
(0,405 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: 78% 168 wires

High pressure physical injection foamed polyethylene, **TRIPLE LAYER DIELECTRIC.**
FPE Ø 7,3 ± 0,05 mm

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

Inner conductor made of 19x0,59 stranded, geometric and concentric annealed copper wires. Purity 99,99%. (annealed = thermal softening process) **(19x0,023 inches)**

Cu 19x0,59 mm - Ø 3 mm
(0,118 inches)

ATTENUATION at 20°C

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,7	0,21
3,5 MHz	0,9	0,27
7,0 MHz	1,16	0,35
10 MHz	1,34	0,41
14 MHz	1,55	0,47
21 MHz	1,84	0,56
28 MHz	2,07	0,63
50 MHz	2,76	0,84
100 MHz	3,95	1,20
144 MHz	4,76	1,45
200 MHz	5,67	1,73
400 MHz	8,3	2,53
430 MHz	8,6	2,62
800 MHz	11,96	3,65
1000 MHz	13,47	4,11
1296 MHz	15,49	4,72
2400 MHz	21,8	6,64
3000 MHz	24,66	7,52
4000 MHz	29,1	8,87
5000 MHz	33,1	10,09
6000 MHz	36,9	11,25
7000 MHz	40,7	12,41
8000 MHz	44,2	13,47
9000 MHz	47,5	14,48
10.000 MHz	50,7	15,45

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	9927 W	430 MHz	808 W
3,5 MHz	7721 W	800 MHz	581 W
7,0 MHz	5990 W	1000 MHz	516 W
10 MHz	5186 W	1296 MHz	449 W
14 MHz	4483 W	2400 MHz	319 W
21 MHz	3777 W	3000 MHz	282 W
28 MHz	3357 W	4000 MHz	239 W
50 MHz	2518 W	5000 MHz	210 W
100 MHz	1759 W	6000 MHz	188 W
144 MHz	1460 W	7000 MHz	171 W
200 MHz	1226 W	8000 MHz	157 W
400 MHz	837 W	10.000 MHz	137 W

ELECTRICAL DATA

Impedance @200MHz:	50 Ohm ± 3
Minimum bending radius:	
Multiple bends(15)/single bend	80/40 mm
Temperature range:	
installation	-40° to +60° C
operative	-55° to +85° C
Capacitance:	78 pF/m ± 2
Velocity ratio:	87 %
Screening efficiency:	
100-2000 MHz	>105 dB
Class	A++
Inner conductor resistance:	3,6 Ohm/Km
Outer conductor resistance:	12 Ohm/Km
Tension test (spark test):	8 kV
Weight (100m):	11,1 Kg
Maximum peak power:	13 KWATT

Connectors: C.BNC.BROAD50-M ; C.N.BROAD50-M ; C.UHF.BROAD50-M ; C.BROAD.PL259-A ; TNC.BROAD50-M-S

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); EN 50290-2-22(cables with PVC jacket); EN 50290-2-23(cables with PE jacket); CEI EN 60332-3-22 (Cables with LSZH/FRNC jacket, when installed, vertically or horizontally laid,bunched on cable trays, in conduit or pipes, as potential vectors for fire propagation).



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 10, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 68.1 % 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!

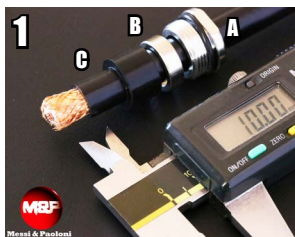
		M&P-HYPERFLEX 10													Useful signal output (residual power %)
		length in meters													
		5	10	15	20	25	35	50	75	100	130	160	200	300	
Frequencies (MHz)	3,5	99,0	97,9	96,9	95,9	95,0	93,0	90,2	85,6	81,3	76,4	71,8	66,1	53,7	
	7	98,7	97,4	96,1	94,8	93,5	91,1	87,5	81,8	76,6	70,7	65,2	58,6	44,9	
	14	98,2	96,5	94,8	93,1	91,5	88,3	83,7	76,5	70,0	62,9	56,5	49,0	34,3	
	28	97,6	95,3	93,1	90,9	88,8	84,6	78,8	69,9	62,1	53,8	46,6	38,5	23,9	
	50	96,9	93,8	90,9	88,1	85,3	80,1	72,8	62,1	53,0	43,8	36,2	28,1	14,9	
	144	94,7	89,6	84,8	80,3	76,0	68,1	57,8	44,0	33,4	24,1	17,3	11,2	3,7	
	430	90,6	82,0	74,3	67,3	61,0	50,0	37,2	22,6	13,8	7,6	4,2			
	1200	83,7	70,0	58,6	49,0	41,0	28,7	16,8	6,9						
	2400	77,8	60,5	47,1	36,6	28,5	17,3	8,1							
	3000	75,3	56,7	42,7	32,1	24,2	13,7	5,8							
	4000	71,5	51,2	36,6	26,2	18,7	9,6	3,5							
	5000	68,3	46,7	31,9	21,8	14,9	6,9								
	6000	65,3	42,7	27,9	18,2	11,9	5,1								
	8000	60,1	36,1	21,7	13,1	7,9									
10.000	55,8	31,1	17,4	9,7	5,4										
12.000	51,8	26,8	13,9	7,2	3,7										

M&P-HYPERFLEX 10 (Power Handling/Temperature)

		Temperature C° / F°										WATT
		-10 / 14	-5 / 23	0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	60 / 140	70 / 158	
Frequencies / Frequenze (MHz)	1,8	12000	12000	12000	11980	11178	10710	9927	8468	7008	5559	
	3,5	11720	11450	11211	10500	9667	8678	7721	6586	5451	4324	
	7	9273	8962	8698	8147	7500	6733	5990	5110	4229	3355	
	10	8027	7758	7530	7053	6492	5829	5186	4423	3661	2904	
	14	6940	6707	6509	6097	5613	5039	4483	3824	3165	2511	
	21	5846	5650	5484	5136	4728	4245	3777	3221	2666	2115	
	28	5196	5022	4874	4565	4203	3773	3357	2863	2370	1880	
	50	3897	3766	3656	3424	3152	2830	2518	2148	1777	1410	
	100	2723	2632	2554	2392	2203	1977	1759	1501	1242	985	
	144	2260	2184	2120	1985	1828	1641	1460	1245	1031	818	
	200	1897	1833	1779	1667	1534	1378	1226	1045	865	686	
	400	1296	1252	1216	1139	1048	941	837	714	591	469	
	430	1251	1209	1173	1099	1012	908	808	689	570	452	
	800	899	869	844	790	727	653	581	496	410	325	
	1000	799	772	749	702	646	580	516	440	364	289	
	1296	694	671	651	610	562	504	449	383	317	251	
	2400	493	477	463	434	399	358	319	272	225	179	
	3000	436	422	409	383	353	317	282	240	199	158	
4000	370	357	347	325	299	268	239	204	169	134		
5000	325	314	305	286	263	236	210	179	148	118		
6000	291	281	273	256	235	211	188	160	133	105		
7000	264	255	248	232	214	192	171	146	121	96		
8000	243	235	228	214	197	177	157	134	111	88		
10000	212	205	199	186	172	154	137	117	97	77		

Connector assembly

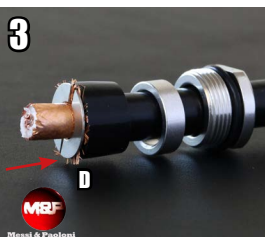
Connector "N" type : C.N.BROAD50-M



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 (6mm).



5 Insert one of the two teflon discs 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 transfer excessive heat to the highly conductive copper underneath. Excessive heat deforms the dielectric which is made of foam PE and not in teflon!

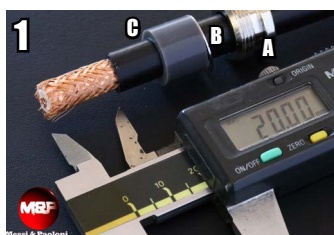


6 Insert the second teflon disc as shown in the picture.



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.

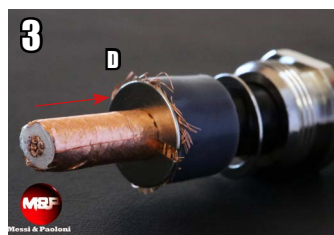
Connector "UHF" type : C.UHF.BROAD50-M



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.



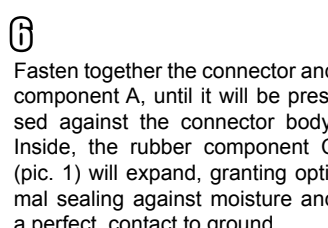
3 Flatten the wires as shown in the picture and cut the excess.



4 Cut and remove the tape and dielectric for a length as shown in the picture.



5 Insert the connector and solder it with tin to the inner conductor (see picture above). Avoid heating the pin for a too long time in order not to transfer excessive heat to the highly conductive copper underneath. Excessive heat deforms the dielectric which is made of foam PE and not in teflon!



6 Fasten together the connector and component A, until it 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.



Messi & Paoloni srl
Via G. Conti 1 - 60131 - Ancona
Tel. +39.0712861527
Fax. +39.0712861736
www.messi.it - info@messi.it

CONNECTORS AVAILABLE FOR M&P-HYPERFLEX 10

C.N.BROAD50.M



C.UHF.BROAD50.M



C.BROAD.PL259-A



C.TNC.BROAD50-M-S



C.BNC.BROAD50-M



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