



Broad-pro 50C

Competition Double Jacket

High resistance copper screen (Cu) 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: 71%

144 wires

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

Black protective PVC jacket, water-proof and UV resistant. This cable can be laid underground. The red PE jacket clearly shows potential cracks on the above external sheath. (which might occur during pulling on rocky and rough environments).

In order to prevent braid oxidation, we apply a thin Petrol Jelly layer (flooding), adding an extra waterproofing protection.

Inner conductor : 99,99% pure electrolytic annealed bare copper.
(annealed = thermal softening process)

Cu Ø 2,76 mm
(0,108 inches)

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

ELECTRICAL DATA

Impedance @200MHz:	50 Ohm ± 3
Minimum bending radius:	
Multiple bends/single bend	124/80 mm
Temperature:	installation -40° to +60° C
	operative -55° to +85° C
Capacitance:	74 pF/m ± 2
Velocity ratio:	85 %
Screening efficiency:	
100-2000 MHz	>105 dB
Class	A++
Inner conductor resistance:	3 Ohm/Km
Outer conductor resistance:	9,2 Ohm/Km
Tension test (spark test):	8 kV
Weight (100m):	17 Kg
Maximum peak power:	14500 WATT
Connectors: C.BNC.BROAD50-M ; C.N.BROAD50DJ-MS ; C.UHF.BROAD50-M ; C.BROAD.PL259-A ; TNC.BROAD50-M-S	

SRL

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

POWER HANDLING (at 40C°/104 F°)

FREQUENCY	MAXP	FREQUENCY	MAXP
1,8 MHz	10831 W	430 MHz	947 W
3,5 MHz	8471 W	800 MHz	679 W
7,0 MHz	6667 W	1000 MHz	600 W
10 MHz	6000 W	1296 MHz	522 W
14 MHz	5180 W	2400 MHz	364 W
21 MHz	4114 W	3000 MHz	314 W
28 MHz	3731 W	4000 MHz	261 W
50 MHz	2769 W	5000 MHz	225 W
100 MHz	2045 W	6000 MHz	199 W
144 MHz	1682 W	7000 MHz	178 W
200 MHz	1412 W	8000 MHz	161 W
400 MHz	986 W	10.000 MHz	136 W

ATTENUATION at 20°C

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,65	0,20
3,5 MHz	0,85	0,26
7,0 MHz	1,08	0,33
10 MHz	1,2	0,37
14 MHz	1,39	0,42
21 MHz	1,75	0,53
28 MHz	1,93	0,59
50 MHz	2,5	0,76
100 MHz	3,6	1,10
144 MHz	4,4	1,34
200 MHz	5,2	1,58
400 MHz	7,5	2,29
430 MHz	7,8	2,38
800 MHz	10,9	3,32
1000 MHz	12,3	3,75
1296 MHz	14,1	4,30
2400 MHz	19,8	6,04
3000 MHz	22,5	6,86
4000 MHz	26,8	8,17
5000 MHz	30,5	9,30
6000 MHz	34,1	10,39
7000 MHz	37,6	11,46
8000 MHz	41,0	12,50
10.000 MHz	46,8	14,26
12.000 MHz	52,2	15,19



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-BROAD-PRO 50/c, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 70.7% 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-BROAD-PRO 50/C / M&P-BROAD-PRO 50/C Double Jacket														
length in meters														
	5	10	15	20	25	35	50	75	100	130	160	200	300	
Frequencies (MHz)	3,5	98.9	98	97	96.1	95.2	93.3	90.6	86.4	82.2	77.6	73	67.6	55.5
	7	98.7	97.5	96.3	95.1	93.9	91.6	88.3	82.9	77.9	72.4	67.1	60.8	47.4
	14	98.4	96.8	95.3	93.7	92.4	89.3	85.1	78.6	72.6	65.9	59.9	52.7	38.2
	28	97.8	95.6	93.5	91.4	89.4	85.5	80	71.7	64	56.2	49.1	41	26.3
	50	97.2	94.5	91.8	89.3	86.8	82	75.4	65.4	56.8	48	40.5	32.3	18.4
	144	95	90.5	86.2	82	78	70.7	61	47.6	37.2	27.7	20.6	13.8	5.1
	430	91.5	83.8	76.7	70.3	64.4	54	41.5	26.8	17.2	10.1	5.9		
	1200	85.4	73.3	63	54	46.4	34.2	21.5	9.8	4.2				
	2400	78	61.8	48.9	38.6	30.4	18.7	8.6						
	3000	75.2	57.4	43.8	33.2	25.2	14.2	5.6						
	4000	71.2	51.4	37	26.5	18.9	9.23							
	5000	67.2	45.9	31.1	20.9	13.8	5.6							
	6000	63.4	40.9	26.2	16.4	9.9								
	8000	57	33	19	10									
	10.000	50	26	12										
12.000	43	18												
Useful signal output (residual power %)														

Useful signal output (residual power %)

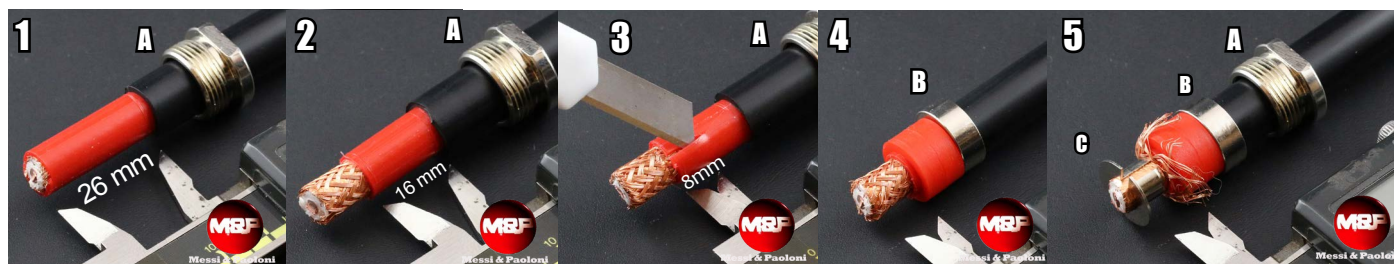
M&P-BROAD-PRO 50/C Double Jacket (Power Handling/Temperature)

Temperature C° / F°											
	-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	13300	13300	13300	13300	12900	12174	10831	9239	7647	6065
	3,5	13112	12672	12299	11520	10605	9521	8471	7225	5980	4744
	7	10320	9973	9680	9067	8347	7493	6667	5687	4707	3733
	10	9288	8976	8712	8160	7512	6744	6000	5118	4236	3360
	14	8018	7749	7521	7045	6485	5822	5180	4418	3657	2901
	21	6369	6155	5974	5595	5151	4624	4114	3509	2905	2304
	28	5775	5581	5417	5074	4671	4193	3731	3182	2634	2089
	50	4287	4143	4021	3766	3467	3113	2769	2362	1955	1551
	100	3166	3060	2970	2782	2561	2299	2045	1745	1444	1145
	144	2604	2517	2443	2288	2106	1891	1682	1435	1188	942
	200	2185	2112	2050	1920	1768	1587	1412	1204	997	791
	400	1527	1476	1432	1341	1235	1109	986	841	696	552
	430	1467	1417	1376	1288	1186	1065	947	808	669	531
	800	1051	1016	986	924	850	763	679	579	480	380
	1000	929	898	871	816	751	674	600	512	424	336
	1296	808	781	758	710	653	586	522	445	368	292
	2400	563	544	528	495	455	409	364	310	257	204
	3000	487	470	457	428	394	353	314	268	222	176
	4000	404	390	379	355	327	293	261	223	184	146
	5000	348	337	327	306	282	253	225	192	159	126
	6000	308	298	289	270	249	224	199	170	140	111
	7000	275	266	258	242	223	200	178	152	126	100
	8000	249	241	234	219	202	181	161	137	114	90
	9000	227	220	213	200	184	165	147	125	104	82
	10000	211	204	198	185	171	153	136	116	96	76

WATT

Connector assembly

Connector "N" type : C.N.BROAD50DJ-MS



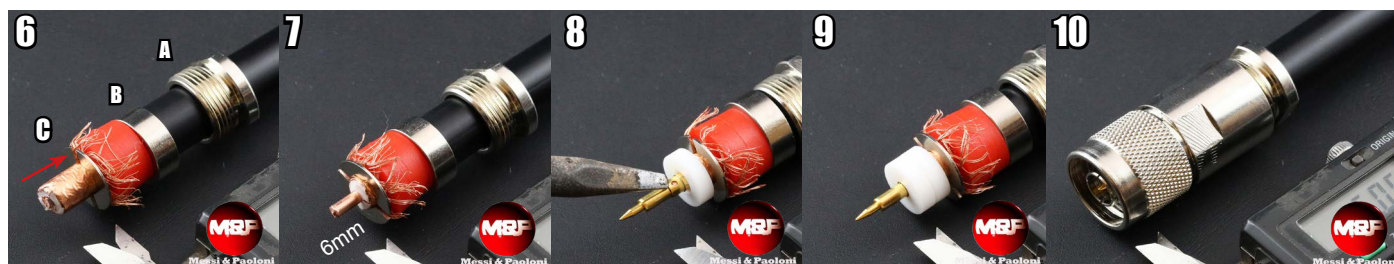
Insert in the cable components A and make a circular cut on the black PVC outer jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.

Make a circular cut on the red PE jacket and slide it away as shown in the picture. The remaining visible red jacket must be of the length indicated by the caliber.

After having made the first cut, as shown in picture 3, rotate the cable 180 degrees and make a second cut in the same way.

Insert component B as shown in the picture.

Insert component C after having opened the braid as shown in the picture.



Push component C between the foil and the braid until it stops against the red PE jacket.

Cut and remove the tape and dielectric for a length as shown in the picture (6mm).

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 damage with excessive heat the cable dielectric. (which is not made in teflon!)

Insert the second teflon disc as shown in the picture.

Insert the connector and fasten accurately until the component A, will be pressed against the connector body.

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



Make a circular cut on the black PVC outer jacket at the indicated length shown in the caliber (in mm). Subsequently remove it.

Make a circular cut on the red PE jacket leaving the remaining red jacket length indicated in caliber. Subsequently remove it.

After having made the first cut, as shown in picture 3, rotate the cable 180 degrees and make a second cut in the same way.

Insert components A and B as shown in the picture. Subsequently insert component C after having opened the braid as shown in the picture.

Push component C between the foil and the braid until it stops against the red PE jacket.



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

Insert the connector and solder it with tin to the inner conductor (see picture above). Avoid heating for a too long time in order not to damage with excessive heat the cable dielectric. (which is not made in teflon!)

Fasten together the connector and component A, until it will be pressed against the connector body. Inside, the rubber component B (pic. 6) will expand, granting optimal sealing against moisture and a perfect contact to ground.



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CONNECTORS AVAILABLE FOR M&P-BROAD-PRO 50/C Double Jacket

C.N.BROAD50DJ-MS



C.UHF.BROAD50.M



C.BROAD.PL259-A



C.TNC.BROAD50-M-S



C.BNC.BROAD50-M



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