M&P Hyperflex 10 /.400”

Ham Radio Pro Cables — M&P — MESSI & PAOLONI

CE Pb RoHS Compliant 2002/95/EC

JACKET:
UV-resistant black PVC
overall Ø 10,3mm ± 0,15
(0.405”)

REACTIVE BRAID:
85% SCREENING - 192 wires of copper clad aluminium made with 24 spool machines (instead of 16). Thanks to 50% more crossovers, grants exceptional Screening Attenuation (SA) and reacts to twisting and bending like a spring

FOIL: 100% SCREENING
First screen made of copper with an applied PE-layer: prevents cracking due to short radius bends



DIELECTRIC:
High pressure physical injection foamed polyethylene
TRIPLE LAYER
overall Ø 7,3 mm ± 0,05 (0.287”)

INNER CONDUCTOR:
19x0,59mm copper wires - overall Ø 2,9 mm ± 0,15
(19x0.023” - overall Ø 0.114”)

ATTENUATION (20°C /68°F)

FREQUENCY	dB/100m	dB/100ft
1,8 MHz	0,8	0,2
3,5 MHz	1,0	0,3
7 MHz	1,1	0,3
10 MHz	1,3	0,4
14 MHz	1,5	0,4
21 MHz	1,8	0,5
28 MHz	2,0	0,6
50 MHz	2,7	0,8
100 MHz	3,9	1,1
144 MHz	4,7	1,4
200 MHz	5,6	1,7
400 MHz	8,3	2,5
430 MHz	8,6	2,6
800 MHz	11,9	3,6
1000 MHz	13,4	4,1
1296 MHz	15,4	4,7
2400 MHz	21,8	6,6
3000 MHz	24,6	7,5
4000 MHz	29,1	8,8
5000 MHz	33,1	10,0
6000 MHz	36,9	11,2
7000 MHz	40,7	12,4
8000 MHz	44,2	13,4
9000 MHz	47,5	14,4
10.000 MHz	50,7	15,4

ELECTRICAL DATA

Impedence @200Mhz:	50 Ohm ± 3
Minimum bending radius:	up to 15 bends: 80mm (3.15 in) single bend (choke): 40mm (1.57 in)
Temperature:	-40°C to +60°C (-40°F to +140°F)
Capacitance:	78 pF/m ± 2 (23.8 pF/ft ± 2)
Velocity factor:	87%
Screening Efficiency (SA)	100-2000 MHz >105 dB
Inner conductor resistance:	3,6 Ohm/Km (1.0 Ohm/1000ft)
Outer conductor resistance:	12 Ohm/Km (2.8 Ohm/1000ft)
Tension test (spark test):	8 kV
Net weight x 100m (100ft):	11,6 Kg (7,8 lb)
Maximum peak power:	13000 WATT
Structural Return Loss:	0,3-600 MHz >30 dB; 600-1200 MHz >25 dB; 1200-2000 MHz >20 dB

POWER HANDLING (40°C/104°F)

FREQUENCY	MAX P.	FREQUENCY	MAX P.
1,8 MHz	5581 W	430 MHz	543 W
3,5 MHz	4583 W	800 MHz	392 W
7 MHz	3861 W	1000 MHz	348 W
10 MHz	3447 W	1296 MHz	302 W
14 MHz	3013 W	2400 MHz	215 W
21 MHz	2528 W	3000 MHz	190 W
28 MHz	2214 W	4000 MHz	161 W
50 MHz	1656 W	5000 MHz	142 W
100 MHz	1152 W	6000 MHz	127 W
144 MHz	956 W	7000 MHz	116 W
200 MHz	808 W	8000 MHz	106 W
400 MHz	561 W	10.000 MHz	91 W

OUR PRODUCTS ARE MANUFACTURED IN COMPLIANCE WITH:
CEI 46-1 (construction parameters); EN 50117 (screening efficiency); CEI EN 50289 (SA test methods); R118 (ISO7622-1); IEC 60332-1-2 (cables with PVC and LSZH jacket); CPR305/11 - **EuroClass Eca** - EN50575:2014 - DoP number: MP00103

WHY CHOOSE THIS CABLE

- The most flexible 10,3mm cable, perfect for tight bendings and rotor antennas.
- The best attenuations for a stranded core 10,3mm coaxial cable.
- Best velocity ratio in the coax range: 87% !
- Excellent performances with limited signal loss even at higher frequencies and long distances.
- The best cable for Wi-Fi signal extension, Router, 2G-5G, Hotspot, LoRaWAN protocol, Gateway IoT.

FREQUENCY SUGGESTIONS

HF (from 3MHz to 30Mhz)

example at 14 MHz
EXCELLENT up to 100m of cable length
GOOD up to 160m of cable length
Choose Ø 12,7mm cable above 160m

example 28 MHz
EXCELLENT up to 75m of cable length
GOOD up to 120m of cable length
Choose Ø 12,7mm cable above 120m

VHF (from 30MHz to 300Mhz)

example at 50 Mhz
EXCELLENT up to 60m of cable length
GOOD up to 80m of cable length
Choose Ø 12,7mm cable above 80m

example at 144 Mhz
EXCELLENT up to 35m of cable length
GOOD up to 60m of cable length
Choose Ø 12,7mm cable above 60m

UHF (from 300MHz to 3000Mhz)

example at 430 MHz
EXCELLENT up to 20m of cable length
GOOD up to 30m of cable length
Choose Ø 12,7mm cable above 28m

example at 1296 MHz
EXCELLENT up to 12m of cable length
GOOD up to 17m of cable length
Choose Ø 12,7mm cable above 17m

example at 2400 MHz
EXCELLENT up to 8m of cable length
GOOD up to 10m of cable length
Choose Ø 12,7mm cable above 12m

*data valuable for Power Application (trasmission)
**you can find Watt / MAX POWER in the datasheet above.

RESIDUAL POWER PERCENTAGE (Cable Run Efficiency)

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-HY-PERFLEX 10, entering 1000 Watts over a length of 35m, at a frequency of 144 MHz, there remains 68% 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 /.400”												
	feet		16,4	32,8	49,2	65,6	82	114,8	164	246	328	426,5	524,9	656,2	984,2
	meters		5	10	15	20	25	35	50	75	100	130	160	200	300
	Wave length	MHz	Useful signal output (residual power %)												
Frequencies	85.71 m	3,5	98,9	97,8	96,8	95,8	94,9	92,9	90,1	85,5	81,2	76,3	71,7	66,0	53,6
	42.85 m	7	98,6	97,3	96,0	94,7	93,4	91,0	87,4	81,7	76,5	70,6	65,1	58,5	44,8
	21.42 m	14	98,1	96,4	94,7	93,0	91,4	88,2	83,6	76,4	69,9	62,8	56,4	48,9	34,2
	10.71 m	28	97,5	95,2	93,0	90,8	88,7	84,5	78,7	69,8	62,0	53,7	46,5	38,4	23,8
	6 m	50	96,8	93,7	90,8	88,0	85,2	80,0	72,7	62,0	52,9	43,7	36,1	28,0	14,8
	2 m	144	94,6	89,5	84,7	80,2	75,9	68,0	57,7	43,9	33,3	24,0	17,2	11,1	3,6
	69 cm	430	90,4	81,9	74,1	67,1	60,8	49,8	37,0	22,5	13,6	7,5	4,0		
	23.1 cm	1296	83,0	69,4	57,9	48,4	40,4	28,1	16,2	6,3					
	12.5 cm	2400	76,2	58,9	45,5	35,1	26,9	15,7	6,5						
	10 cm	3000	73,3	54,7	40,7	30,1	22,2	11,7	3,9						
	7.5 cm	4000	68,4	48,0	33,4	23,0	15,6	6,4							
	6 cm	5000	62,0	40,4	25,6	15,5	8,6								
	5 cm	6000	55,3	32,7	17,9	8,2									
	3.75 cm	8000	50,1	26,1	11,7	3,1									
	3 cm	10.000	45,8	21,1	7,4										
	2.5 cm	12.000	41,8	16,8	3,9										

HYPERFLEX 10 /.400” Power Handling/Temperature (in Continuous Carrier - 50% Duty Cycle)

			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	166.66 m	1,8	8639	8349	8104	7590	6987	6273	5581	4761	3940	3125
	85.71 m	3,5	7094	6856	6655	6233	5738	5151	4583	3909	3236	2566
	42.85 m	7	5977	5776	5606	5251	4834	4340	3861	3293	2726	2162
	30 m	10	5336	5157	5005	4688	4316	3874	3447	2940	2434	1930
	21.42 m	14	4664	4507	4375	4098	3772	3387	3013	2570	2127	1687
	14.28 m	21	3913	3782	3671	3438	3165	2841	2528	2156	1785	1416
	10.71 m	28	3427	3312	3215	3011	2772	2489	2214	1889	1563	1240
	6 m	50	2563	2477	2405	2252	2073	1861	1656	1413	1169	927
	3 m	100	1783	1723	1673	1567	1442	1295	1152	983	813	645
	2.08 m	144	1480	1430	1388	1300	1197	1075	956	815	675	535
	1.5 m	200	1251	1209	1173	1099	1012	908	808	689	570	452
	75 cm	400	868	839	815	763	702	631	561	479	396	314
	69 cm	430	841	812	788	738	680	610	543	463	383	304
	37.5 cm	800	607	586	569	533	491	441	392	334	277	220
	30 cm	1000	539	521	505	473	436	391	348	297	246	195
	23.1 cm	1296	467	452	439	411	378	339	302	258	213	169
	12.5 cm	2400	333	322	312	292	269	242	215	183	152	120
	10 cm	3000	294	284	276	258	238	214	190	162	134	106
	7.5 cm	4000	249	241	234	219	202	181	161	137	114	90
	6 cm	5000	220	212	206	193	178	160	142	121	100	80
	5 cm	6000	197	190	184	173	159	143	127	108	90	71
	4.2 cm	7000	180	174	168	158	145	130	116	99	82	65
	3.75 cm	8000	164	159	154	144	133	119	106	90	75	59
	3 cm	10.000	140	136	132	123	113	102	91	77	64	50

WATT

Do not use the cable as power supply for both direct current and 50-60 HZ mains

GENERIC COAXIAL CABLE APPLICATIONS*

- Aircraft communications
- Amateur Radio
- Antenna
- Antenna Analyzer
- Beacons Base Station
- Broadcast Radios
- CB Radio (Citizen Band)
- CB Radio Scanner
- Dummy Load
- Hotspot
- Maritime Mobile Communications
- Military Communications
- Microwave Relay System
- Moon Bouncing Trasmission EME
- Mobile Transmission Applications (Car, Van, Caravans, Trucks, etc.)
- Motorhome
- Network Analyzer
- Portable Handheld Radio (Walkie Talkie - PMR antenna extension)
- Radar
- Radio Astronomy and Telescope
- Radio Receivers
- Router connections
- Satellite Radio
- Scanner
- Switch connections
- SWR Meter connections
- Transceiver
- Tuner connections
- Weather Radio Antenna Extension

*See "Frequency Suggestions" for a correct correlation

PRE-ASSEMBLED COAX JUMPERS

YOU'VE NO TIME FOR ASSEMBLING THE CONNECTORS YOURSELF?
GRAB OUR FACTORY MADE COAX JUMPERS **"LAB TESTED"** ONE BY ONE!
LAB CERTIFICATE ENCLOSED IN EACH PACKAGING.







USEFUL ACCESSORIES



SPECIAL COAX SCISSORS



ADHESIVE REUSABLE VELCRO



CABLE PULLING LUBRIFICANT



M&P T-SHIRT



POTA-SPEED





POTA-CASE

CONNECTORS for 10,3mm (.400") Coaxial Cables

EVOlution



"UHF" (PL-259) Male Solder

Watch the Assembly Video: https://youtu.be/35SWUllkVjw

Code: CO.UHF.10M-S EVO



"UHF" (PL-259) Female Solder

Watch the Assembly Video: https://youtu.be/vVuTp_wYSio

Code: C.UHF.BROAD50F-S



"UHF" Male Solder - 90° Angle

Watch the Assembly Video: https://youtu.be/qQoZT4TqF4w

Code: C.UHF.BROAD50-M90



"PL259" Male Solder (standard)

Watch the Assembly Video: https://youtu.be/DWIKgI62M_8

Code: C.BROAD.PL259



"N" Male Solder

Watch the Assembly Video: https://youtu.be/c6Z8jHE3gC4

Code: CO.N.10M-S



"N" Female Solder

Watch the Assembly Video: https://youtu.be/P18ViE8Exhk

Code: C.N.BROAD50-FS



"N" Male Solderless

Watch the Assembly Video: https://youtu.be/Sexpy1fQn6Y

Code: C.N.BROAD50-SL



"N" Female Solderless

Watch the Assembly Video: https://youtu.be/RJdiLYvtpBk

Code: C.N.BROAD50-FSL



"N" Male Solder - 90° Angle

Watch the Assembly Video: https://youtu.be/8NY0a-v7h74

Code: C.N.BROAD50-M90

For other connectors and adapters, visit **www.messi.it** or contact us at **web@messi.it**

CONNECTORS for 10,3mm (.400”) Coaxial Cables



“N” Male Crimp

Watch the Assembly **Video:** https://youtu.be/sggjEZKue8k

Code: C.N.BROAD50-MCR



“N” Female Crimp

Watch the Assembly **Video:** https://youtu.be/l9lgcDznJlo

Code: C.N.BROAD50-FCR



“BNC” Male Solder

Watch the Assembly **Video:** https://youtu.be/tsaUjVnIPkI

Code: C.BNC.BROAD50-M



“BNC” Female Solder

Watch the Assembly **Video:** https://youtu.be/46SLt5mODjg

Code: C.BNC.BROAD50-FS



“TNC” Male Solder

Watch the Assembly **Video:** https://youtu.be/A-ayPwR-epY

Code: C.TNC.BROAD50-MS



“TNC” Male Crimp

Watch the Assembly **Video:** https://youtu.be/X1QgKRtIesk

Code: C.TNC.BROAD50-CR



“SMA” Male Solder

Watch the Assembly **Video:** https://youtu.be/whXmqoRqj_0

Code: C.SMA.UF10M-S



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Watch the Assembly **Video:** https://youtu.be/CK12Z7Agj4U

Code: C.7-16.10M-S



HEAT SUPPRESSOR

Pairing to our “N” or ‘’UHF” connectors, the Heat Suppressor represents an extension of the operational life of your valuable cables and a greater homogeneity of their performance in hot enviroments.

The benefits will also be more evident for those who use high power linear amplifiers for prolonged periods during contests.

Cooling and stabilizing the cable, could be the ace in your sleeve!

For other connectors and adapters, visit www.messi.it or contact us at web@messi.it