

M&P

# Hyperflex 10

.400"



**J A C K E T :**  
UV-resistant black PVC  
overall Ø 10,3mm ± 0,15  
(0.405 inches ± 0.0059)

## 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 inch. ± 0.0019)

## INNER CONDUCTOR :

19x0,59mm copper wires - overall Ø 2,9 mm ± 0,15 (19x0.023 inches - overall Ø 0.114 inches ± 0.0059)

## 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

Impedance @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 ratio:	87%
Screening Efficiency (SA)	100-2000 MHz >105 dB
Screening Class:	A++
Inner conductor resistance:	3,6 Ohm/Km (1.1 Ohm/1000ft)
Outer conductor resistance:	12 Ohm/Km (3.7 Ohm/1000ft)
Tension test (spark test):	8 kV
Net weight (100m/100ft):	11,2 Kg (7.5 lb)
Maximum peak power:	13.000 WATT
Connectors:	UHF (PL), N, BNC, SMA, TNC, 7/16

## SRL

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	9927 W	430 MHz	808 W
3,5 MHz	7721 W	800 MHz	581 W
7 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

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 (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.

## 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-HYPERFLEX 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										

## M&P-HYPERFLEX 10 / .400" Power Handling/Temperature (in Continuous Carrier)

		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	12000	12000	12000	11980	11178	10710	9927	8468	7008	5559
	85.71 m	3,5	11720	11450	11211	10500	9667	8678	7721	6586	5451	4324
	42.85 m	7	9273	8962	8698	8147	7500	6733	5990	5110	4229	3355
	30 m	10	8027	7758	7530	7053	6492	5829	5186	4423	3661	2904
	21.42 m	14	6940	6707	6509	6097	5613	5039	4483	3824	3165	2511
	14.28 m	21	5846	5650	5484	5136	4728	4245	3777	3221	2666	2115
	10.71 m	28	5196	5022	4874	4565	4203	3773	3357	2863	2370	1880
	6 m	50	3897	3766	3656	3424	3152	2830	2518	2148	1777	1410
	3 m	100	2723	2632	2554	2392	2203	1977	1759	1501	1242	985
	2.08 m	144	2260	2184	2120	1985	1828	1641	1460	1245	1031	818
	1.5 m	200	1897	1833	1779	1667	1534	1378	1226	1045	865	686
	75 cm	400	1296	1252	1216	1139	1048	941	837	714	591	469
	69 cm	430	1251	1209	1173	1099	1012	908	808	689	570	452
	37.5 cm	800	899	869	844	790	727	653	581	496	410	325
	30 cm	1000	799	772	749	702	646	580	516	440	364	289
	23.1 cm	1296	694	671	651	610	562	504	449	383	317	251
	12.5 cm	2400	493	477	463	434	399	358	319	272	225	179
	10 cm	3000	436	422	409	383	353	317	282	240	199	158
7.5 cm	4000	370	357	347	325	299	268	239	204	169	134	
6 cm	5000	325	314	305	286	263	236	210	179	148	118	
5 cm	6000	291	281	273	256	235	211	188	160	133	105	
4.2 cm	7000	264	255	248	232	214	192	171	146	121	96	
3.75 cm	8000	243	235	228	214	197	177	157	134	111	88	
3 cm	10.000	212	205	199	186	172	154	137	117	97	77	

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
  - Land Mobile Communications
  - Maritime Mobile Communications
  - Military Communications
  - Microwave Relay System
  - Moon Bouncing Transmission 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 LUBRICANT



M&P T-SHIRT



UNWINDERS FOR COILS AND BOBBINS



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

**EVO**lution



## “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](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/DWIKgl62M\\_8](https://youtu.be/DWIKgl62M_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/SexpyifQn6Y>

**Code:**

C.N.BROAD50-SL



## “N” Female Solderless

Watch the Assembly

**Video:**

<https://youtu.be/RJdiLYtpBk>

**Code:**

C.N.BROAD50-FSL



## “N” Male Solder - 90° Angle

Watch the Assembly

**Video:**

<https://youtu.be/8NYoa-v7h74>

**Code:**

C.N.BROAD50-M90

# 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/l9JgcDznJlo>

**Code:**

C.N.BROAD50-FCR



## "BNC" Male Solder

Watch the Assembly

**Video:**

<https://youtu.be/tsaUjVnlPkl>

**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\\_o](https://youtu.be/whXmqoRqj_o)

**Code:**

C.SMA.UF10M-S



7/16

Watch the Assembly

**Video:**

<https://youtu.be/CK1zZ7Agi4U>

**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 environments.

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](http://www.messi.it) or contact us at [web@messi.it](mailto:web@messi.it)

