




High-current plug-in systems in comparison


This Table is a translation of German to the best of my ability.

The original website is: <http://www.elektromodellflug.de/oldpage/hochstromst/hochstromstecker.htm>

Image	Comment	Dimensions (Mated)	Contact Dimensions	Weight Socket and Connector	Contact Resistance Socket / Connector	Preferred Connection Wire	Continuous Current (usual battery capacity) Pulse Current 30s
	MPX connector system Tight seated, hard-gilded multi-contacts.	13x16x7mm	3* 0.65x1.6x6mm	2.7g	<0.6 mOhm <small>(Reference data as a benchmark for the following connector)</small>	2.5mm ²	35A / 60A <small>(Reference data as Scale for the following connector)</small>
	Extremely tight-fitting, hard-gilded "V" sockets. MPX compatible ⁽⁵⁾	13x16x7mm	Plug as above. Socket has two tongues per contact a total of 12 contacts!	3.1g	0.4 mOhm	2.5mm ²	50A / 70A
	XT60 ⁽⁶⁾ tight, hard-gilded slotted plug	24x16x8mm	In the housing seated slotted plug & sockets 3,5 x 4mm	6.6g	0.45 mOhm	2.5mm ²	50A / 70A
	Extremely tight seated, twisted, hard-gilded Feinstschlitz-spring bushes plug-in system from Plettenberg	8x30mm	6x7.5mm	5.9g (hollow bored)	0.1mOhm	4mm ² up to 16mm ²	>150A (Calculated)
	Extremely tight seated, polished LMT hard-gilded Feinschlitz-connector ⁽²⁾	7x21mm	6x6mm	4.1g	<0.05mOhm	4mm ² up to 14mm ²	>250A (Calculated)
	Extremely tight seated, hard-gilded slot connector	7x26mm	5.5x9mm	6.1g	<0.1 mOhm	4mm ² up to 16mm ²	>150A (Calculated)
	Tight seated, hard-gilded banana plugs ⁽¹⁾	5x27mm	Ø 4x12mm	3.4g	<0.2 mOhm	2.5mm ²	80A (Calculated)
	Tight seated, hard-gilded "ultra light" banana plugs ⁽⁴⁾	5x16.5mm	Ø 4x6mm	0.8g	< 0.35mOhm	2.5mm ²	60A / 75A

	Very tight seated, hard-gilded banana plugs (1)	4.5 x17mm	Ø 3.5x6mm	1.5g	<0.3 mOhm	2.5mm ²	60A / 75A
	Tight seated, hard-gilded banana plugs (1)	3x30mm	Ø 2x8mm	1.3g	<0.8 mOhm	1.5mm ²	25A / 35A
	Tight seated, hard-gilded "ultra light" banana plugs (4)	3x17mm	Ø 2x8mm	0.3g	<0.8 mOhm	1.5mm ²	20A / 30A
	Tight seated, hard-gilded Plug-spring socket (1)	1.2 x 25mm	Ø 0.8x4mm	0.3g	<2.5 mOhm	0.5mm ²	8A / 12A
	tight seated, hard-gilded Plug-spring socket (4)	1.5 x 20mm	Ø 0.8x4mm	0.25g	<2mOhm	0.5mm ²	10A / 15A
	Deans-UltraPlug (3) Tightly seated spring contacts	16x13x7mm	7x4x1.2mm	3.5g	<0.3 mOhm	2.5mm ²	60A / 75A
	DeansMicro2R (5) Tightly seated, hard-gilded Multiple contacts Plug-spring bushing	15x5.7x5.7mm	4x0.8x0.9mm	0.9g	<1.5 mOhm	0.5mm ² (1mm ²)	10A / 15A
	BEC-System (1) with 0.5mm ² well-fitting, prefabricated	23x7x4mm	0.5x1.2x 6mm	2.2g	<5 mOhm	0.5mm ²	5A / 8A
	MP-JET (5) Very tight seated, hard-gilded Plug-spring socket	5 x 20mm	3.5x6.5mm	2.5g	<0.15 mOhm	2.5mm ² - 4mm ²	80A (Calculated)
	MP-JET (5) Very tight seated, hard-gilded Plug-spring socket	4 x 16,5mm	2.5x5.5mm	1.3g	<0.25 mOhm	1.5mm ² (25A)2,5mm ²	60A / 75A

	MP-JET ⁽⁵⁾ Very tight seated, hard-gilded Plug-spring socket	3 x 13mm	1.8x4mm	0.6g	<0.4 mOhm	0.5mm ² (10A) 1 mm ² (20A) 1.5mm (25A)	30A / 50A
	"Zero Loss Connectors" well-fitting hard-gilded Spring bush connector from Astroflight	5.2 x 26mm	2.5x7mm	2.5g	>0.2 mOhm	2.5mm ²	60A / 80A
	Kontronik Tight seated, hard silver plated Plug-spring socket	4.5 x 23mm	4x5.5mm	1.2g	<0.3 mOhm	2.5mm ²	60A / 75A
	"Tamiya" Hard gold plated plug-in system	3 x 36mm	4x2mm	0.6g (without housing)	<1.5 mOhm	1mm ²	15A / 25A

Supplementary test of large St. Bu in 4,5mm / 5mm / 6mm contact diameter (New März/2010): 

Unfortunately, the plugs are not always led under the same product designations, for orientation with illustrations.

Cable tips / cross section calculation here:> Line calculation <

Sources:	⁽¹⁾ ⁽³⁾ KD-Modelltechnik	Kontronik-Drive	⁽¹⁾ Tower Hobbys ⁽⁴⁾ Shop	Nessel-Elektronik	⁽⁴⁾ Plettenberg-Motoren	⁽²⁾ LMT-Motoren	⁽⁵⁾ RaceBoat ⁽⁶⁾ Ebay
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... .. for calculating the voltage loss: $U = 2 * (R * I)$ and the power: $P = 2 * (I^2 * R)$

Measuring Access:	<p>The worst measured data of several plug / book systems, all new, to a full 0.05mΩ rounded up and published. The transition resistors sometimes fluctuated up to +/- 15%!</p> <p>for example: Measurement # 1 = 0.078mΩ - # 2 = 0.066mΩ - # 3 = 0.084mΩ ... - published: <0.1mΩ</p> <p>Depending on the plug system, the test current was constant between 5A-30A and 50A.</p> <p>The "ideal" socket / plug would be small, light, smallest transition resistor - theory and practice ... s.o!</p> <p>Thanks for the energetic support: http://www.kd-modelltechnik.de/ and http://www.kontronik.com/</p>
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