

# SCHWARZBECK MESS - ELEKTRONIK

An der Klinge 29 D-69250 Schönau Tel.: 06228/1001 Fax.: (49)6228/1003

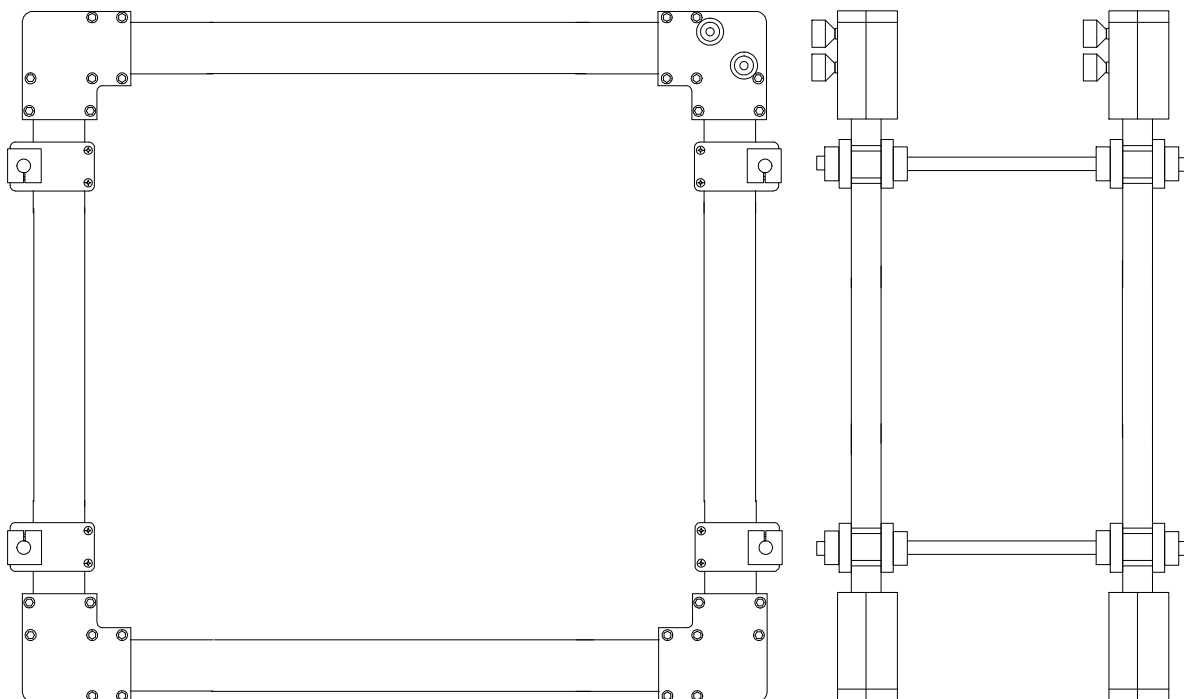
## Helmholtz-Spulen HHS 5212 Helmholtz Coils HHS 5212

### Technische Daten:

Windungszahl (pro Spule):	10
Maximaler Spulenstrom:	20 A, 5 min.
Spulenstrom, nominell:	10 A continuous
Max. Magn. Feldstärke:	250 A/m, 5 min.
Magn. Nennfeldstärke:	125 A/m continuous
Magn. Feldstärke bei 1 A	12.45 A/m
Spulenstrom:	(Coil Dist. 0.48 m)
Erforderlicher Strom für 10 A/m:	0.8 A (Coil Dist. 0.48 m)
Abmessungen:	1.2 m x 1.2 m x 0.74 m
Max. Spulenabstand:	0.7 m
Spulenabstand gem. IEC 1000-4-8	0.48 m
Spulenabstand für beste	0.68 m
Feldhomogenität:	
Nutzbarer Frequenzbereich:	0 - 150 kHz
Induktivität (pro Spule):	0.45 mH
Wirkwiderstand (pro Spule):	0.36 $\Omega$
Resonanzfrequenz (Spulenpaar):	> 500 kHz
Gewicht:	12 kg

### Specifications:

<i>Number of turns (per Coil):</i>
<i>Maximum Coil Current:</i>
<i>Nominal Coil Current:</i>
<i>Maximum Magnetic Field Strength:</i>
<i>Nominal Magnetic Field Strength:</i>
<i>Magnetic Fieldstrength, 1 A Coil</i>
<i>Current:</i>
<i>Current required for 10 A/m:</i>
<i>Mechanical Dimensions:</i>
<i>Maximum Coil Separation:</i>
<i>Coil Separation acc. IEC 1000-4-8:</i>
<i>Coil Separation for best uniformity:</i>
<i>Usable Frequency Range:</i>
<i>Inductance (per Coil):</i>
<i>Resistance (per Coil):</i>
<i>Resonant Frequency (Pair of Coils):</i>
<i>Weight:</i>

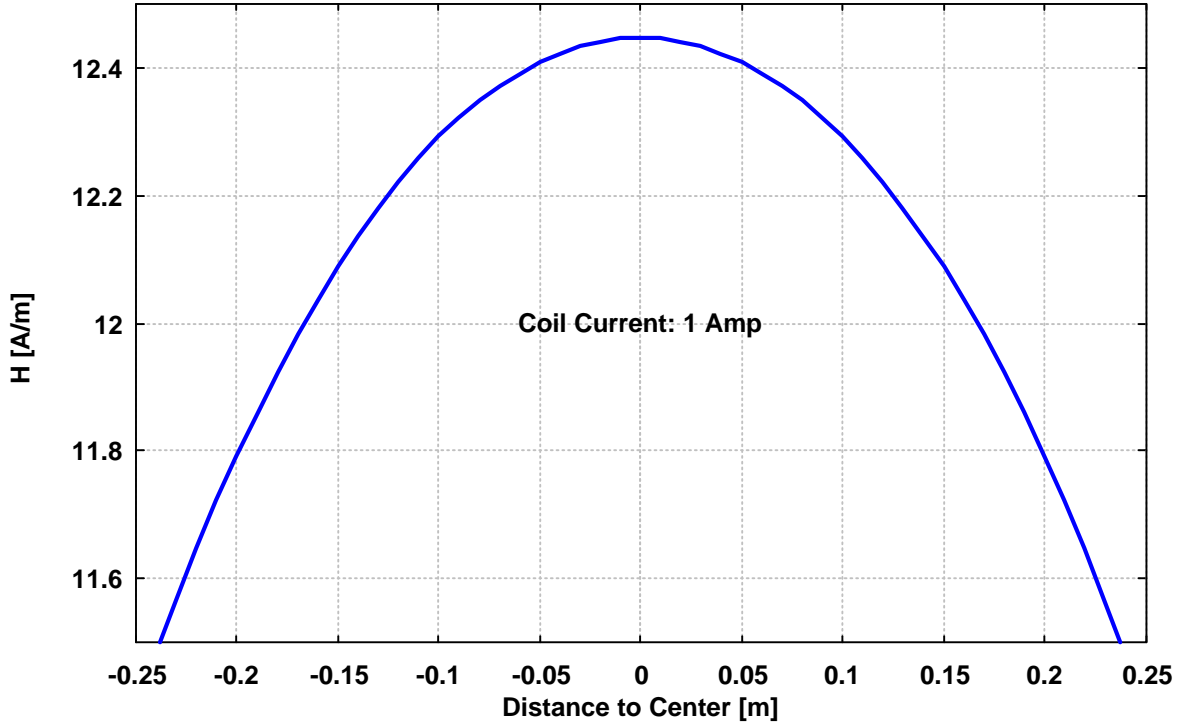


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HHS 5212 magnetic Fieldstrength along longitudinal coil axis

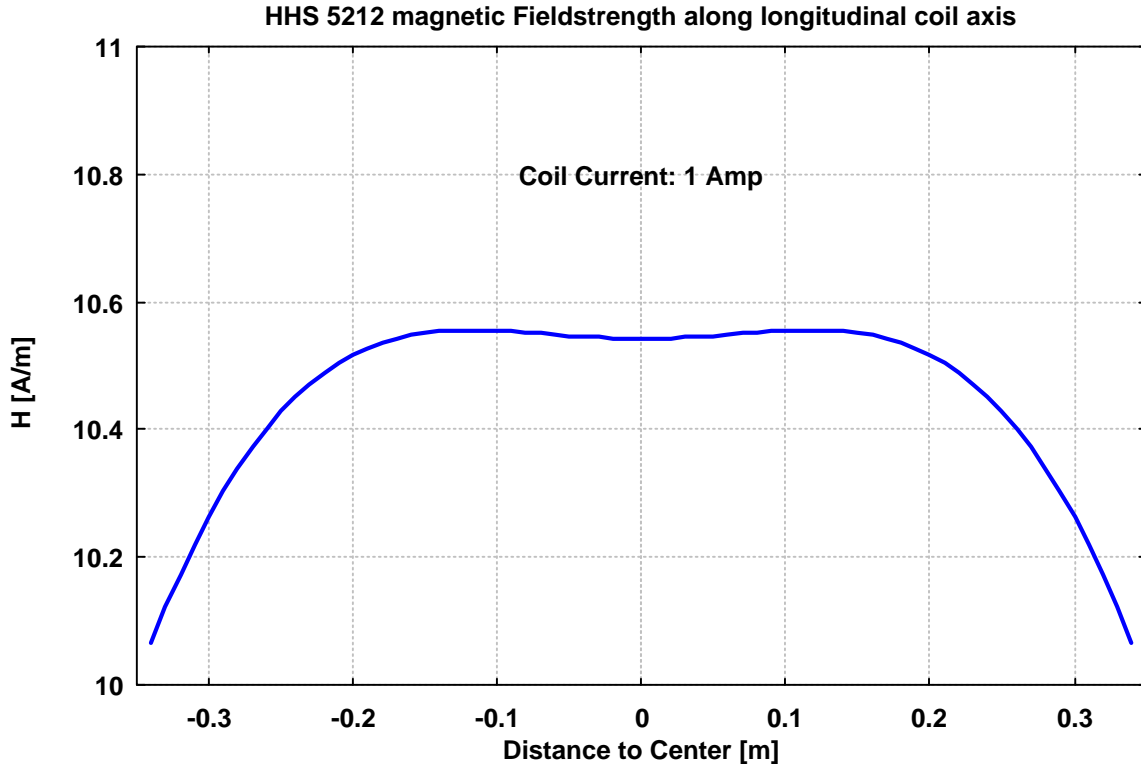


HHS 5212 10 +10 Wdg. , Kantenlänge = 1.2 m, Spulenabstand <i>Coil Distance</i> 0.48 m, I = 1 Amp Längskomponente der magnetischen Feldstärke entlang der Spulenlängsachse <i>Magnet. Fieldstrength, longitudinal component along rotational axis</i>						
Abstand zur Spulenmitte	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dBµA/m]	H2[dBµA/m]	Hges[dBµA/m]
Distance to Center Plane	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dBµA/m]	H2[dBµA/m]	Hges[dBµA/m]
0.00 (Center Plane)	6.2236	6.2236	12.4473	135.88	135.88	141.90
0.05	6.6541	5.7550	12.4091	136.46	135.20	141.87
0.10	7.0203	5.2716	12.2919	136.93	134.44	141.79
0.15	7.2966	4.7923	12.0889	137.26	133.61	141.65
0.20	7.4612	4.3312	11.7924	137.46	132.73	141.43
0.24 (Center Coil 1)	7.5026	3.9818	11.4845	137.50	132.00	141.20
<b>Spulenabstand 0.48 m Coil Distance 0.48 m</b>						

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HHS 5212 10 +10 Wdg. , Kantenlänge = 1.2 m, Spulenabstand <i>Coil Distance</i> 0.68 m, I = 1 Amp						
Längskomponente der magnetischen Feldstärke entlang der Spulenlängsachse						
<i>Magnet. Fieldstrength, longitudinal component along rotational axis</i>						
Abstand zur Spulenmitte	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dBµA/m]	H2[dBµA/m]	Hges[dBµA/m]
Distance to Center Plane	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dBµA/m]	H2[dBµA/m]	Hges[dBµA/m]
0.00 (Center Plane)	5.2716	5.2716	10.5432	134.44	134.44	140.46
0.05	5.7550	4.7923	10.5473	135.20	133.61	140.46
0.10	6.2236	4.3312	10.5548	135.88	132.73	140.47
0.15	6.6541	3.8976	10.5517	136.46	131.82	140.47
0.20	7.0203	3.4970	10.5173	136.93	130.87	140.44
0.25	7.2966	3.1317	10.4283	137.26	129.92	140.36
0.30	7.4612	2.8019	10.2631	137.46	128.95	140.23
0.34 (Center Coil 1)	7.5026	2.5628	10.0654	137.50	128.17	140.06
<b>Spulenabstand 0.68 m</b> <b><i>Coil Distance 0.68 m</i></b>						