

SCHWARZBECK MESS - ELEKTRONIK

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

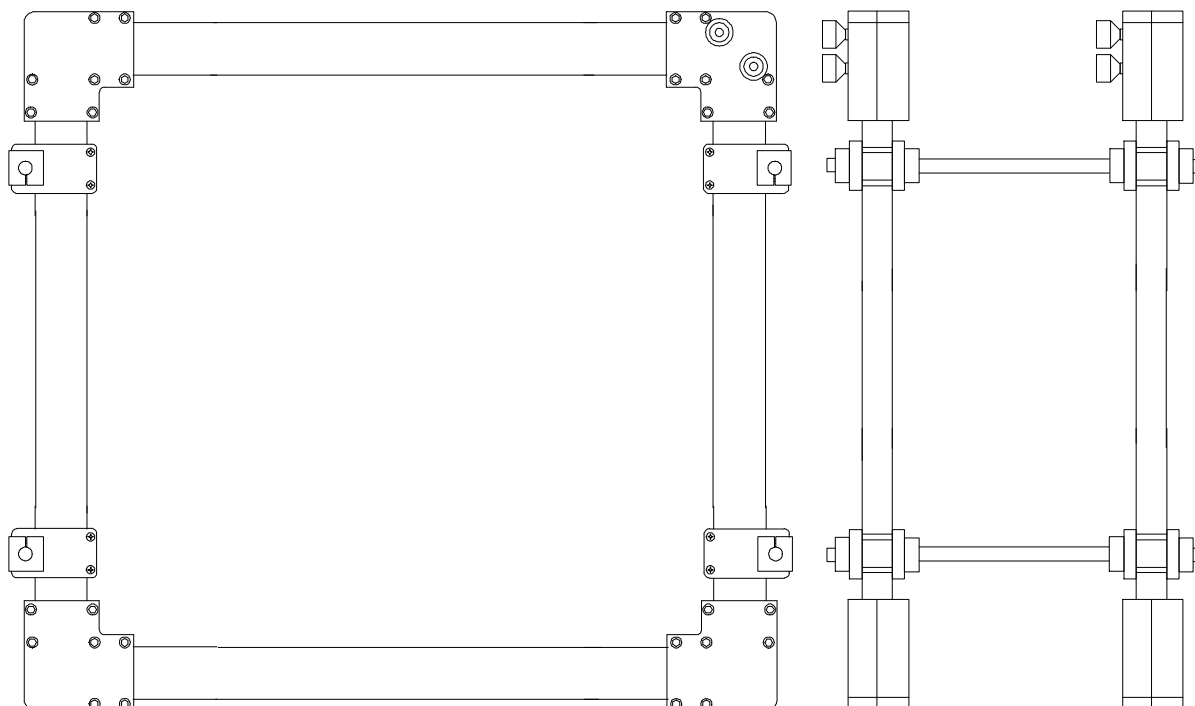
Helmholtz-Spulen HHS 5210 Helmholtz Coils HHS 5210

Technische Daten:

Windungszahl (pro Spule):	10
Maximaler Spulenstrom:	20 A, 5 min.
Spulenstrom, nominell:	10 A continuos
Max. Magn. Feldstärke:	300 A/m, 5 min.
Magn. Nennfeldstärke:	150 A/m continuos
Magn. Feldstärke bei 1 A Spulenstrom:	15 A/m (Coil Dist. 0.4 m)
Erforderlicher Strom für 10 A/m:	0.67 A (Coil Dist. 0.4 m)
Abmessungen:	1.0 m x 1.0 m x 0.63 m
Max. Spulenabstand:	0.58 m
Spulenabstand gem. IEC 1000-4-8:	0.4 m
Spulenabstand für beste Feldhomogenität:	0.57 m
Nutzbarer Frequenzbereich:	0 - 150 kHz
Induktivität (pro Spule):	0.36 mH
Wirkwiderstand (pro Spule):	0.3 Ω
Resonanzfrequenz (Spulenpaar):	> 600 kHz
Gewicht:	10 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 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>

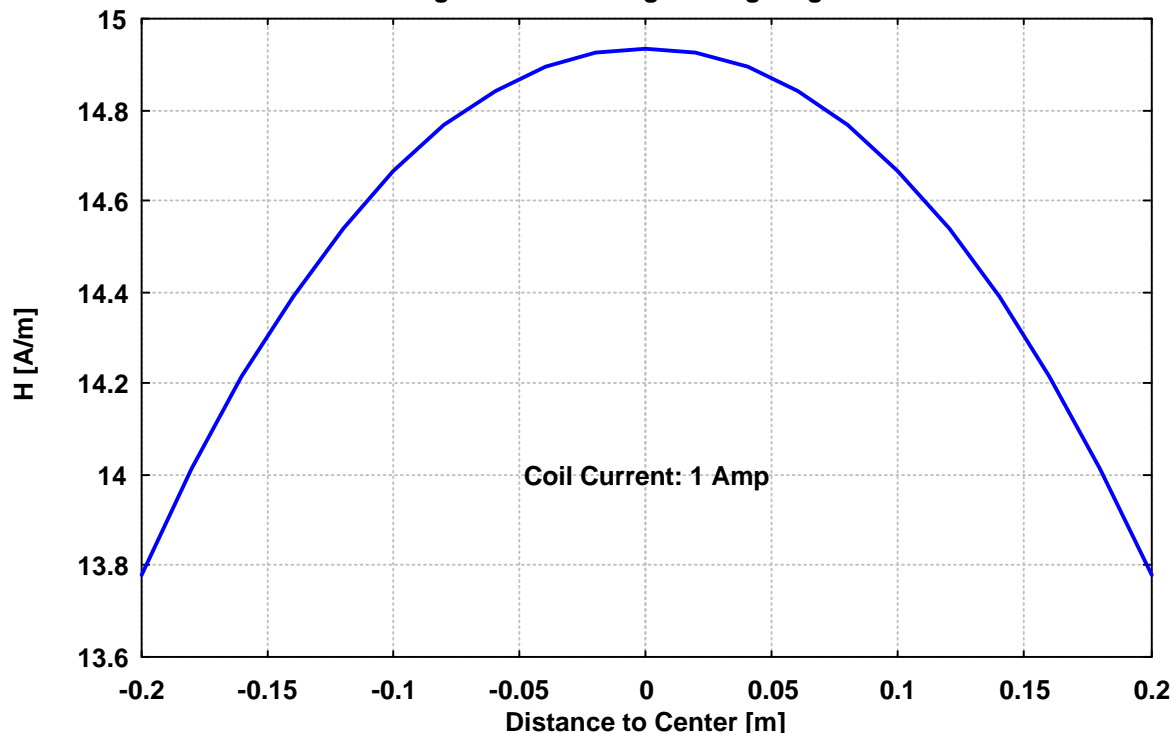


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HHS 5210 magnetic Fieldstrength along longitudinal coil axis



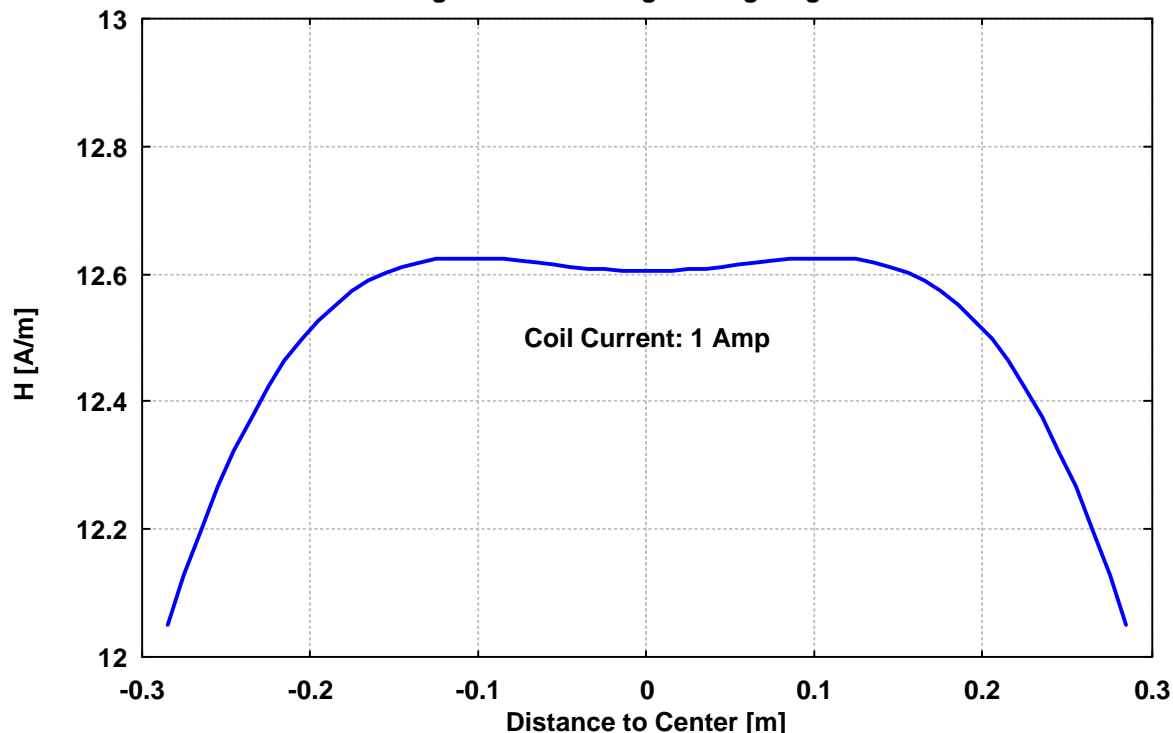
HHS 5210 10 +10 Wdg. , Kantenlänge = 1.0 m, Spulenabstand <i>Coil Distance</i> 0.4 m, I = 1 Amp Längskomponente der magnetischen Feldstärke entlang der Spulenlängsachse <i>Magnet. Fieldstrength, longitudinal component along rotational axis</i>						
Abstand zur Spulenmitte	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dBµA/m]	H2[dBµA/m]	Hges[dBµA/m]
Distance	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dBµA/m]	H2[dBµA/m]	Hges[dBµA/m]
-0.20 (Center Coil 2)	4.7782	9.0032	13.7814	133.59	139.09	142.7
0.00 (Center Plane)	7.4684	7.4684	14.9367	137.46	137.46	143.4
0.02	7.7239	7.2023	14.9262	137.76	137.15	143.48
0.04	7.9655	6.9290	14.8945	138.02	136.81	143.46
0.06	8.1897	6.6515	14.8411	138.27	136.46	143.43
0.08	8.3928	6.3724	14.7652	138.48	136.09	143.38
0.10	8.5716	6.0942	14.6658	138.66	135.70	143.33
0.12	8.7228	5.8189	14.5417	138.81	135.30	143.25
0.14	8.8436	5.5484	14.3919	138.93	134.88	143.16
0.16	8.9316	5.2840	14.2156	139.02	134.46	143.06
0.18	8.9852	5.0270	14.0121	139.07	134.03	142.93
0.20 (Center Coil 1)	9.0032	4.7782	13.7814	139.09	133.59	142.79
Spulenabstand 0.4 m Coil Distance 0.4 m						

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HHS 5210 magnetic Fieldstrength along longitudinal coil axis



HHS 5210 10 +10 Wdg. , Kantenlänge = 1.0 m, Spulenabstand <i>Coil Distance</i> 0.57 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[dB μ A/m]	H2[dB μ A/m]	Hges[dB μ A/m]
Distance	H1[A/m]	H2[A/m]	Hges[A/m]	H1[dB μ A/m]	H2[dB μ A/m]	Hges[dB μ A/m]
0.00 (Center Plane)	6.2330	6.3724	12.6054	135.89	136.09	142.01
0.02	6.5120	6.0942	12.6061	136.27	135.70	142.01
0.04	6.7906	5.8189	12.6095	136.64	135.30	142.01
0.06	7.0664	5.5484	12.6147	136.98	134.88	142.02
0.08	7.3364	5.2840	12.6204	137.31	134.46	142.02
0.10	7.5976	5.0270	12.6246	137.61	134.03	142.02
0.12	7.8467	4.7782	12.6249	137.89	133.59	142.02
0.14	8.0800	4.5384	12.6184	138.15	133.14	142.02
0.16	8.2941	4.3080	12.6021	138.38	132.69	142.01
0.18	8.4855	4.0873	12.5728	138.57	132.23	141.99
0.20	8.6508	3.8765	12.5273	138.74	131.77	141.96
0.22	8.7871	3.6755	12.4627	138.88	131.31	141.91
0.24	8.8918	3.4844	12.3762	138.98	130.84	141.85
0.26	8.9628	3.3028	12.2656	139.05	130.38	141.77
0.28 (Center Coil 1)	8.9987	3.1307	12.1294	139.08	129.91	141.68
Spulenabstand 0.57 m						
Coil Distance 0.57 m						