



Figure 1. Electronic Box

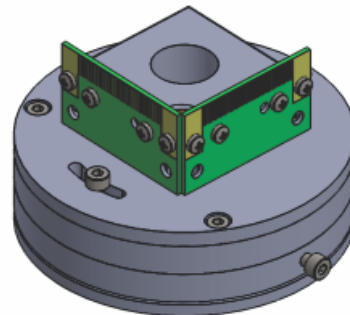


Figure 2. Calibration Tool

DESCRIPTION

The SENIS MFCSv1.2 Calibration Set for magnetic field measurement is provided as an accessory for permanent magnet mapping applications, such as SENIS MMS (All-in-One Magnetic Field Mapping System). The MFCS is used to precisely determine the location of a Hall elements sensitive area.

The current source of MFCS (Electronic box) generates a DC current of approx. 7A. The direction of this DC current can be changed by the control voltage.

The other part of the calibration tool are two well aligned PCB's, mounted on a metal cube with the orthogonal accuracy of 0.2°. The DC current supplied by current source flows through the cooper layer of the PCBs, generating a well-defined magnetic field. Hall probes of the Magnetic Field Mapper measure all three components of the magnetic field around PCB's cooper layer and in this way, the exact position of the Probe's Sensitive Area can be accurately determined.

Control voltage [V]	Current direction
+10	Positive
0	No current
-10	Negative

Dual color LED on the front panel of the Electronic box is ON when the current flows through the Calibration Tool. The LED color (green or red) depends on the current direction.

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Rev.02,
July. 2013
Page 1/3

MECHANICAL CHARACTERISTICS

Description	Dimensions
Aluminum case module Schroff	3U, 10HP

ELECTRICAL CHARACTERISTICS

Description	Value
Supply voltage	220/110 VAC , 50/60Hz
Control input voltage	+10, 0, -10 VDC
Control input current	Up to 2mA
Output voltage	≈ 6VDC
Output current	≈ 7A
Load resistor	0.47R / 50W

REAR CONECTOR PINOUT – DIN 41612-64 Double Row Female

PIN Description	PIN label
Control voltage	a3
Control voltage GND	b2
LOAD1	a14, b14, a15, b15
LOAD2	a12, b12, a13, b13
Power supply 6VDC	a21, b21, a22, b22
Power supply GND	a24, b24, a25, b25

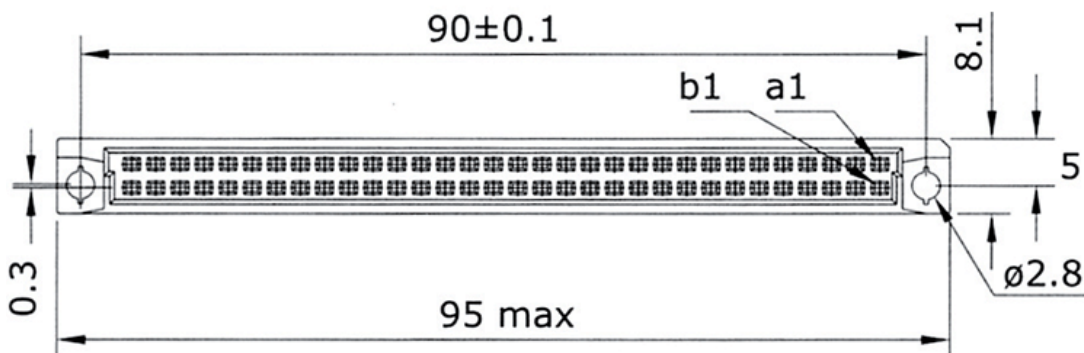


Figure 3. Connector on the rear side of El. box - DIN41612, 64 female (face view)

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Rev.02,
July. 2013
Page 2/3

FRONT CONECTOR PINOUT

<i>PIN Description</i>	<i>PIN number</i>
Calibration tool out	1, 2, 3
Calibration tool in	5, 6, 7
Not connected	4, 8

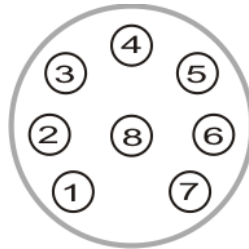


Figure 4. Connector pin description on the front panel of the Electronic box

CONNECTION DIAGRAM

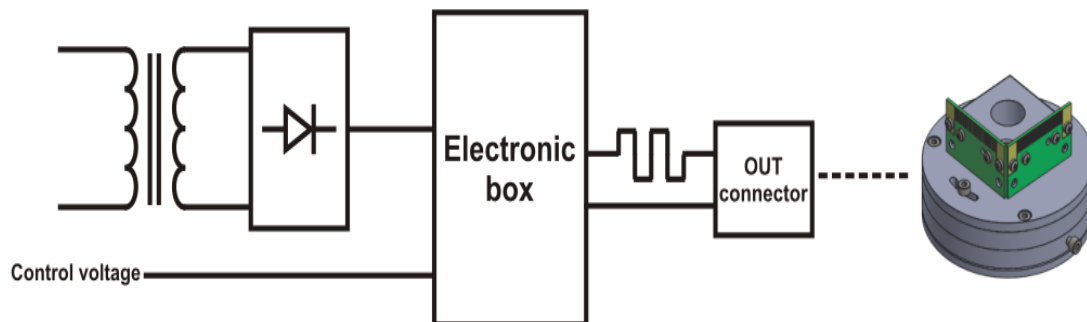


Figure 5. Connection diagram

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Rev.02,
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 Page **3/3**