DATA SHEET

HALL-SENSOR BOARD WITH I2C INTERFACE

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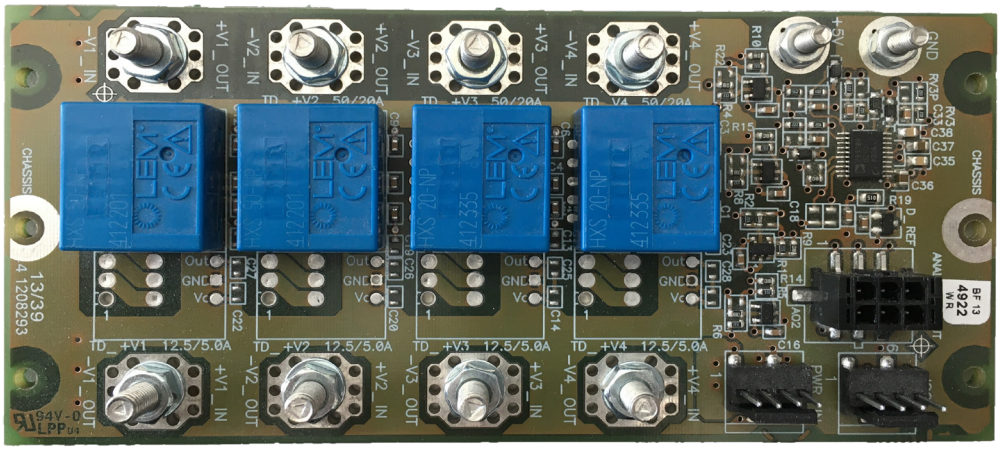
DESCRIPTION

With the ELMA Hall-Sensor Board it is possible to monitor up to 4 different currents and voltages by an I2C interface. There is also the possibility to monitor the currents by four analogue outputs. The different interfaces can be connected either to the ELMA System Monitor 3Gen or to different other applications. The inputs V5…V8 (VMEAS 2) of the ELMA System Monitor 3Gen can be used to monitor the currents by the analogue outputs of the board. The I2C_3V interface of the System Monitor 3Gen can be used to monitor the currents and voltages of the board.



PIN ASSIGNMENT

ANALOGUE_OUT CONNECTOR

PIN	SIGNAL	DESCRIPTION
1	IOut +V1	Analogue output voltage (0.2 V – 5 V)
2	IOut +V2	Analogue output voltage (0.2 V – 5 V)
3	IOut +V3	Analogue output voltage (0.2 V – 5 V)
4	IOut –V4	Analogue output voltage (0.2 V – 5 V)
5	N/C	Not connected
6	GND	GND

PCB CONNECTOR WUERTH: 662-006-231-822 OR MOLEX MICRO-FIT

I2C CONNECTOR

PIN	SIGNAL	DESCRIPTION
1	N/C	Not connected
2	SDA	I2C Data
3	GND	GND
4	SCL	I2C Clock

PCB CONNECTOR TYCO: MTA-100 3-647166-4

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PWR_IN CONNECTOR

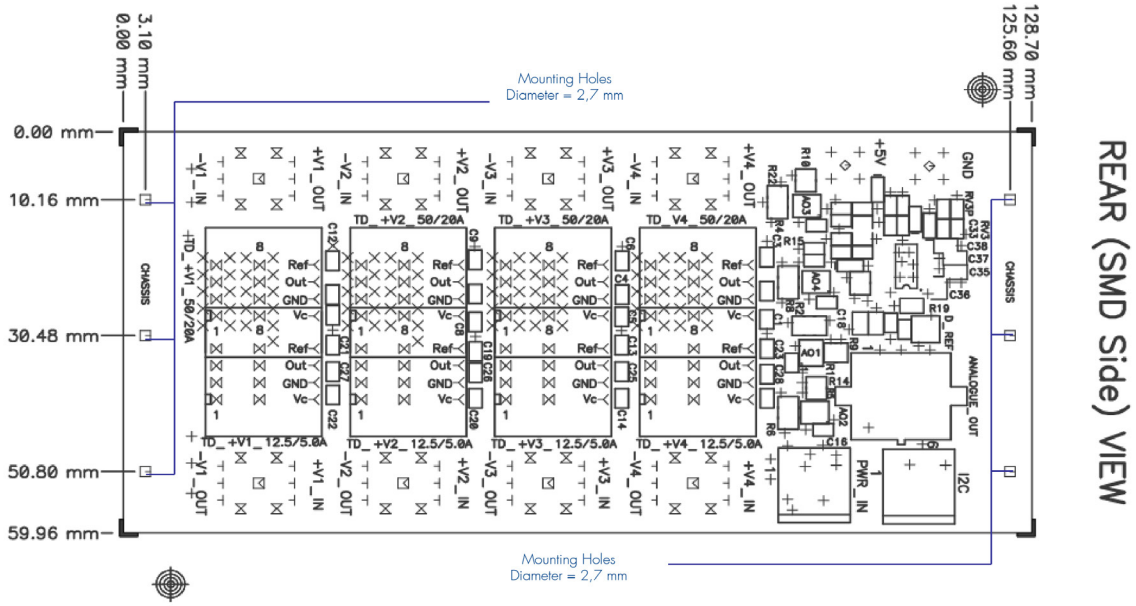
PIN	SIGNAL	DESCRIPTION
1	+5 V	Power supply
2	GND	IGND
3	GND	GND
4	N/C	Not connected

PCB CONNECTOR TYCO: MTA-100 3-647166-4

Two different I2C addresses are possible (0x44 and 0x40)

Operating temperature:	-40 °C to +85 °C
Storage temperature:	-40 °C to +105 °C
Humidity:	95 % non condensing

SIGNAL DESCRIPTION



REAR (SMD Side) VIEW

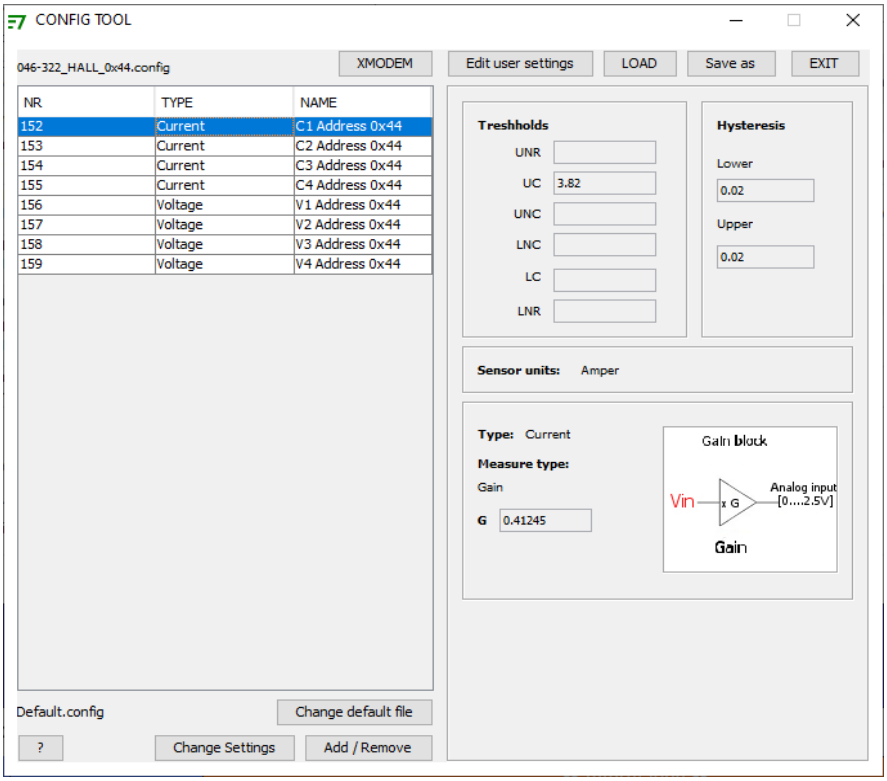
SYSMON CONFIGURATION

- Up to 6 thresholds can be configured individually for each current
- Current monitoring parameters can be changed via the CLI or by upgrading the Sensor Data Records (SDRs)
- CLI Commands for the current monitoring: “current”, “sensor”

For more information, see ELMA Sysmon3Gen User manual

SYSMON CONFIGURATION VIA “CONFIG TOOL”

The easiest way to configure the sysmon is the use of ELMA’s “Config-Tool”:



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AVAILABLE VERSIONS:

Art.-No.	Configuration				I2C Address
046-322	V1	V2	V3	V4	0x44
	+5V	+12V	-5V	-12V	
Ampere max.	15A	5A	15A	5A	

Art.-No.	Configuration				I2C Address
046-323	V1	V2	V3	V4	0x40
	+5V	+3.3V	+12V	-12V	
Ampere max.	60A	15A	15A	15A	

Art.-No.	Configuration				I2C Address
048-368	V1	V2	V3	V4	0x44
	+5V	+5V	+3.3V	-12V	
Ampere max.	15A	5A	15A	5A	

Art.-No.	Configuration				I2C Address
050-279	V1	V2	V3	V4	0x44
	+5V	+3.3V	+12V	-12V	
Ampere max.	90A	25A	60A	60A	

Art.-No.	Configuration				I2C Address
050-280	V1	V2	V3	V4	0x40
	+24V	-24V	-5.2V	-2V	
Ampere max.	60A	60A	90A	25A	

Art.-No.	Configuration				I2C Address
050-381	V1	V2	V3	V4	0x44
	+5V	+3,3V	+12V	-12V	
Ampere max.	90A	60A	25A	15A	

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AVAILABLE VERSIONS:

Art.-No.	Configuration				I2C Address
050-382	V1	V2	V3	V4	0x40
	+5V	+12V	-5V	-12V	
Ampere max.	15A	15A	15A	15A	

Art.-No.	Configuration				I2C Address
055-013	V1	V2	V3	V4	0x44
	+5V	+3.3V	+12V	-12V	
Ampere max.	5A	5A	5A	5A	

Art.-No.	Configuration				I2C Address
056-742	V1	V2	V3	V4	0x40
	+5V	+3,3V	+12V	-12V	
Ampere max.	60A	60A	90A	5A	

OTHER VERSIONS AVAILABLE ON REQUEST