

PRELIMINARY



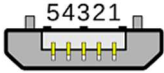
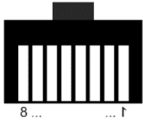
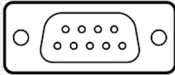
*Illustration similar

HY-Di-HBI-A1 HY-LINE Battery Interface - HBI

- For easy communication with HY-LINE Smart Battery Family and other battery packs
- SM- and CAN-Bus communication
- External power supply via microUSB connector
- Webservice / Web Interface

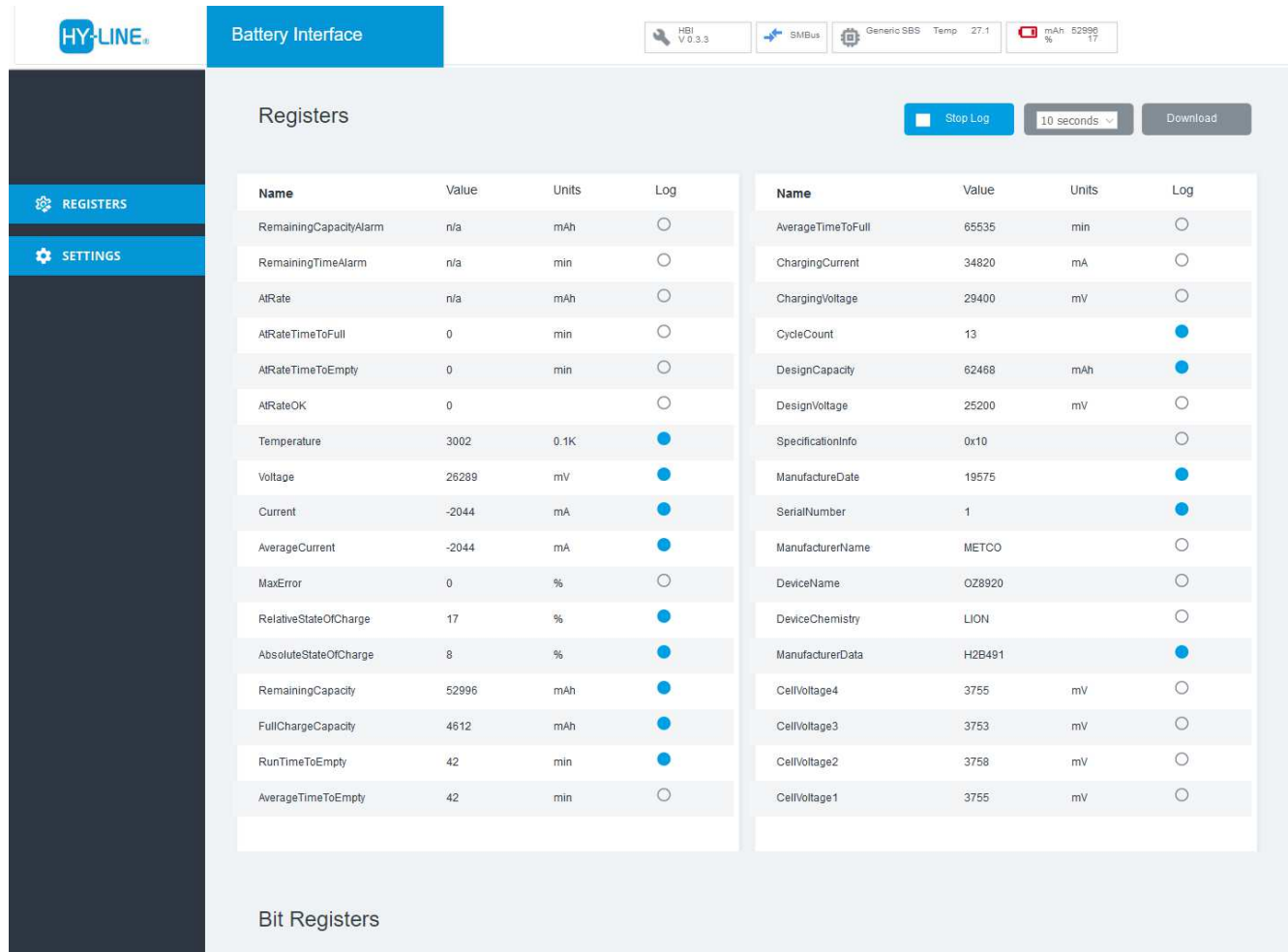
HY-Di-HBI-A1 - HY-LINE Battery Interface - HBI

Specifications

Item	Descriptions	Specifications	Remark
1	Model Number	HY-Di-HBI-A1	
2	To be used for	HY-LINE Smart Battery Family	Other battery packs with SM-Bus communication can be use.
3	Input voltage	5V DC	Recommended power adapter: Standard 5W wall-mount adapter with microUSB connector
4	Input current	1A	
5	Max input power	5W	
6	Input scan	Automatic	SM- or CAN-Bus will be detected
7	IP Address	Static or dynamic	To be found on the enclosure Can be programmed
8	Data logging	Parameters to be selected via web interface	Intervals from 0.1 to 2 seconds
9	Enclosure	Aluminium, black anodized	
10	Operation temperature	0°C ~ 40°C	
11	Storage temperature	-10°C ~ 60°C	
12	Input connector power	microUSB, female	Pin1: V+ Pin2: D- Pin3: D+ Pin4: nc Pin5: GND  <p>54321 Micro-B</p>
13	Input connector data	RJ45, female	To be used with standard Ethernet cables 
14	Output connector data	D-Sub 9 pin, female	
15	Dimension (mm)	L108 * W69.1 * H32	
16	LED indication (one per slot)	1: Power connected 2: Connected with battery / power 3: Start up	Blue LED on Green LED on Red LED on
17	Certifications	CE	
18	Specifications SM-Bus	SM-Bus: SBS1.1	
19	Specifications CAN-Bus	CAN-Bus: HY-LINE_CAN_Protocol_3.0_Rev.2 500kBit/s	upon request

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Integrated Webserver – Web Interface



The screenshot shows the 'Battery Interface' web interface. At the top, there's a navigation bar with 'HY-LINE' and 'Battery Interface'. Below this, there are status indicators for 'HBI V0.3.3', 'SMBus', 'Generic SBS Temp: 27.1', and 'mAh 52996 17%'. The main content area is titled 'Registers' and features a 'Stop Log' button, a '10 seconds' dropdown, and a 'Download' button. There are two tables of registers, each with columns for Name, Value, Units, and Log. The left table lists registers like RemainingCapacityAlarm, RemainingTimeAlarm, AtRate, AtRateTimeToFull, AtRateTimeToEmpty, AtRateOK, Temperature, Voltage, Current, AverageCurrent, MaxError, RelativeStateOfCharge, AbsoluteStateOfCharge, RemainingCapacity, FullChargeCapacity, RunTimeToEmpty, and AverageTimeToEmpty. The right table lists registers like AverageTimeToFull, ChargingCurrent, ChargingVoltage, CycleCount, DesignCapacity, DesignVoltage, SpecificationInfo, ManufactureDate, SerialNumber, ManufacturerName, DeviceName, DeviceChemistry, ManufacturerData, CellVoltage4, CellVoltage3, CellVoltage2, and CellVoltage1. Below the registers, there is a section for 'Bit Registers'.

Standard values can be logged

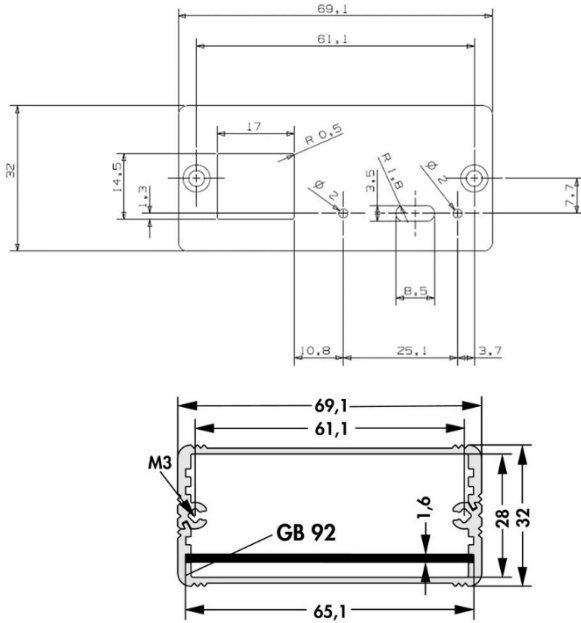
- Remaining Capacity
- Remaining Time
- At Rate
- At Rate Time To Full
- At Rate Time To Empty
- At Rate OK
- Temperature
- Voltage
- Current
- Average Current
- Max Error
- Relative SoC
- Absolute SoC
- Full Charge Capacity
- Run Time to Empty
- Average Time to Empty
- Charging Current
- Charging Voltage
- Cycle Count
- Design Capacity
- Design Voltage
- Manufacturer Date
- Serial Number
- Manufacturer Name
- Device Name
- Device Chemistry
- Manufacturer Data
- Cell Voltage

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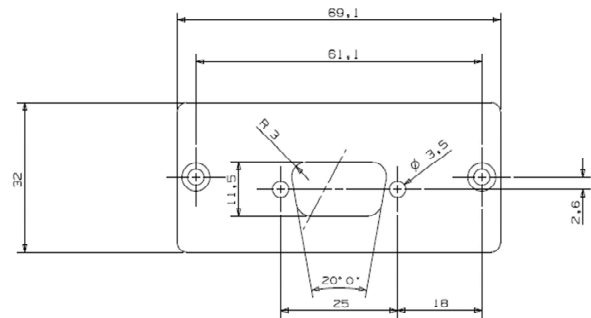
Mechanical

Drawing

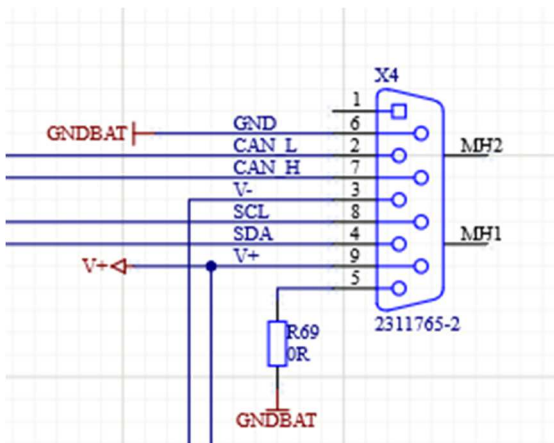
Front:



Back:




Communication Connector 9pin D-Sub and PIN definition



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Accessories

Item	Part number	Remark
Dual Bay Charger	HY-Di-CHG-A1	suitable for 2S, 3S and 4S HY-LINE batteries
Cable CAN-Bus	HK-HBI-CAN01	Connection cable for HY-LINE Smart Battery to Battery Interface with AMP Con for CAN-Bus
Cable SM-Bus	HK-HBI-SM01	Connection cable for Smart Battery to Battery Interface with AMP Con for SM-Bus
Cable HBI to terminal block 5pin	HK-HBI-Multi01	Connection cable HBI to terminal block (5pin), CAN- and SM-Bus
Cable HBI to charger	HK-HBI-CH01	Connection cable HBI to HY-LINE Smart Battery Charger (HY-Di-CHG-A1)
Cadex C7 adapter	CADEX-SBF-Adapt	CADEX Adapter with cable for C7x00 battery analyser to HY-LINE Smart Batteries
Counterpart connector for battery connector AMP 787614-1	5787419-1	 AMP DC Jack Connectors, Board-to-Board, 5 Positions, Pitch 5mm, with flange
	5787444-1	

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HY-LINE AG

HY-LINE AG belongs to the HY-LINE group, a group of specialized distributors.

HY-LINE AG is a specialist in batteries and systems. In addition to standard batteries and charging and maintenance systems, the focus is on the development and design of custom-specific batteries and systems.

HY-LINE Power Components Vertriebs GmbH

HY-LINE Power Components is part of the HY-LINE Group, a group of specialized distributors.

HY-LINE Power Components supplies all core parts and components for power electronics and power supply technology. As a highly specialized distributor and manufacturer representative, HY-LINE Power Components has extensive application-specific know-how and provides support already during the design phase in the selection of components and the configuration of coordinated subsystems.

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