

4. DroneCAN 150A Hall Sensor

4.1. About

The TBS LUCID DroneCAN 150A Hall Sensor, when high current measurements are required without the worry of burning shunt resistors on the FC.

4.2. Specification

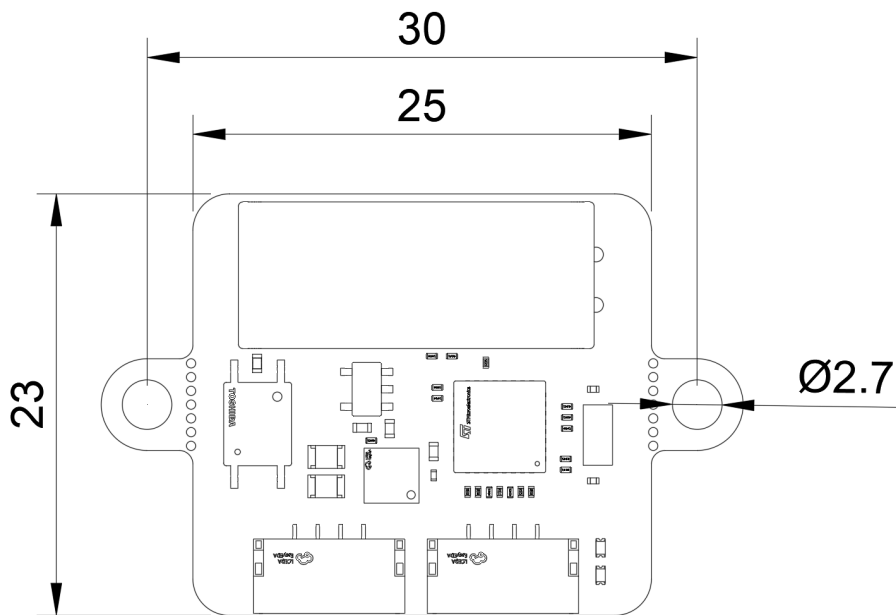
Connections:	CAN 2x Serial 1x SWD 1x
Connector Type:	JST-GH 4-pin, 1.25 mm Solder-Pads
Size	35 x 22 x 22 mm
Operation Temperature:	-20 - 80 °C
Weight	7 g
Input Voltage:	4.5 - 5.5 V
Power Consumption:	17 mA
Sensor Type:	Hall-Sensor
Current Range:	0 - 150 A DC
Sensitivity:	12 mV/A



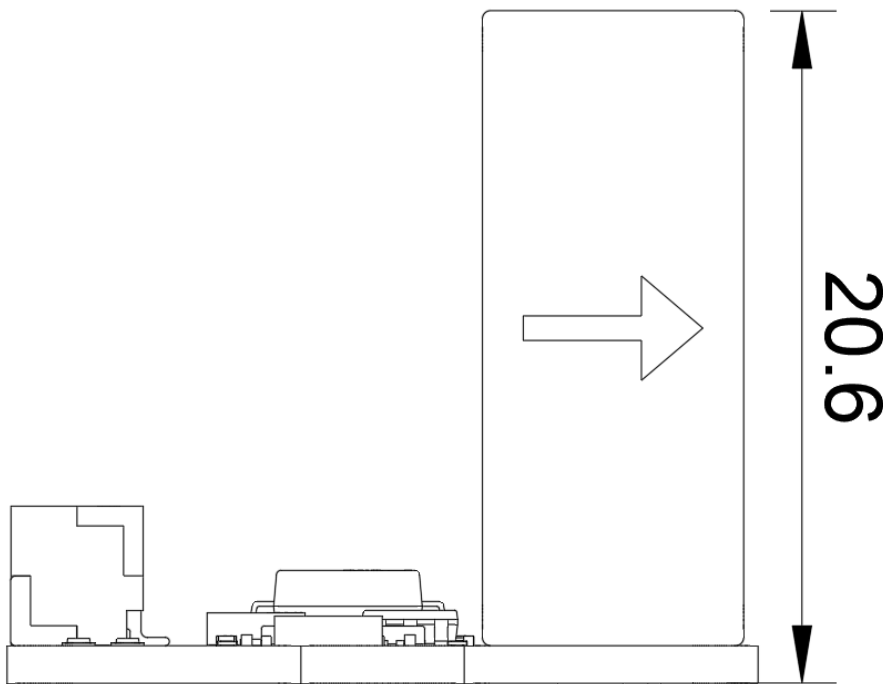
4.3. Mounting - Dimensions



Note: All dimensions are given in millimeters (mm)



Height

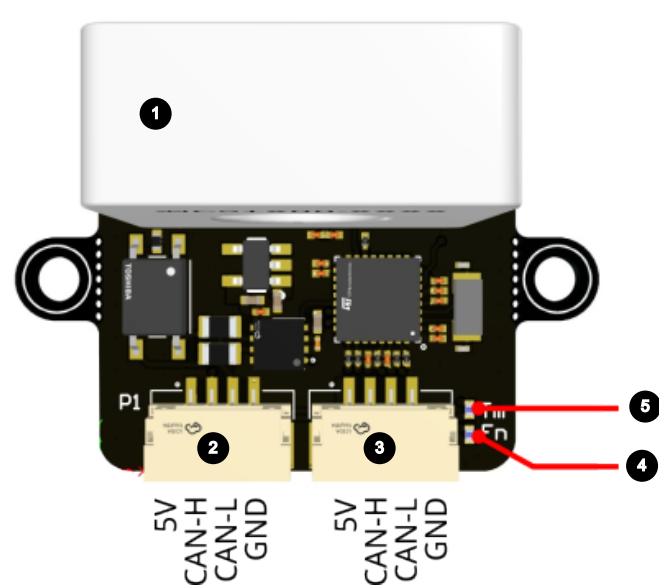


4.4. Firmware

Firmware	Target	Min. FW Ver- sion
ArduPilot	TBS-L431-CurrMon	1.8.0

4.5. Pinout

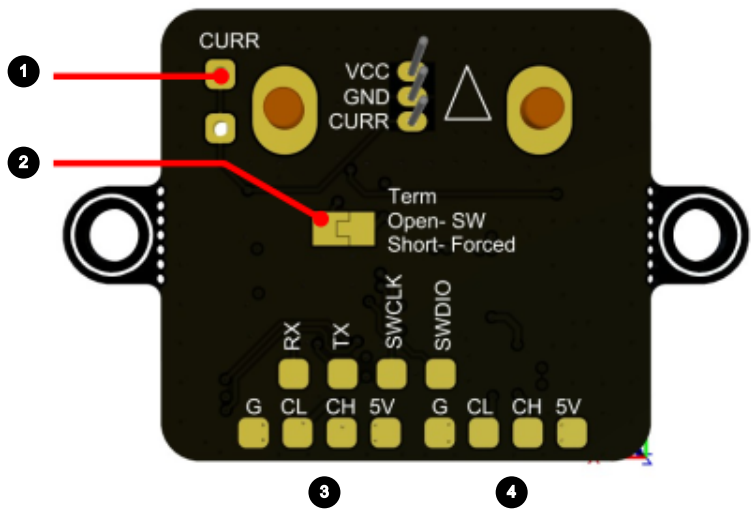
Top View



1 - Sensor	2 - CAN-Connector	3 - CAN-Connector
4 - CAN FN Status LED #todo	5 - CAN Terminator Status LED	

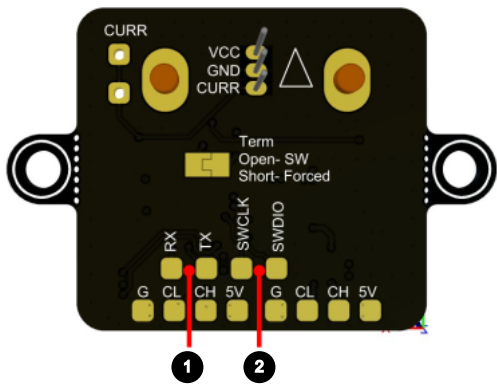


Bottom View



1 - Analog Out ⁽⁵⁾	2 - CAN-Hardware Terminator
3 - CAN-Connector	4 - CAN-Solder Pads

Additional Pins

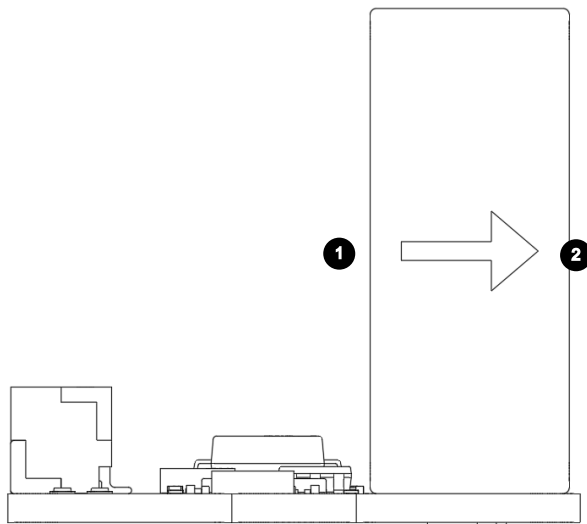


1 - Serial	2 - SWD
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(5) If set, Software Termination setting will be ignored



Current Flow Direction



1 - From Battery

2 - To ESC, FC...

4.6. ArduPilot Setup

General Settings

Setting	Value
DEBUG	0
FLASH_BOOTLOADER	0
FORMAT_VERSION	2
OPTIONS	0
BRD_SERIAL_NUM	0
CAN_BAUDRATE	1000000
CAN_NODE	0
CAN_TERMINATE	0
CAN_P1_DRIVER	1
CAN_D1_PROTOCOL	1

Current Monitoring

Setting	Value
BATTx_MONITOR	8
BATTx_OPTIONS	1
BATT_AMP_PERVLT	91

4.7. INAV/ BETAFLIGHT Settings

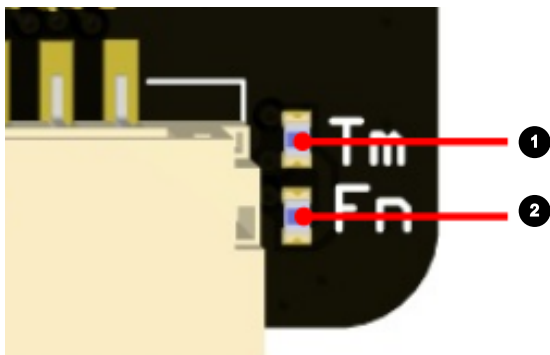
BETAFLIGHT

Setting	Value
Scale:	120
Offset:	0

INAV

Setting	Value
Scale:	120
Offset:	0

4.8. Status LEDs



LED	Pattern	Meaning
TM (1)	Solid	Termination active
	Off	Termination inactive
FN (2)	Slow Blinking	No communication between CAN node and Flight Controllers
	Fast Blinking	Communicating between CAN node and Flight Controllers