

Interfaces

For both the DVL-A50 and the DVL-A125.

LED Signals

- No green light: Power is off.
- Flashing green light (slow): DVL looking for bottom lock.
- Fixed green light: DVL has bottom lock. The LED is mostly on, and blinks quickly to indicate that it is alive.

Wiring interface

The tables below shows the pinning of the DVL-A50 interface.

Interface	Color
Positive (10-30V)	Red
Negative/Ground	Black
ETH TX+	Orange/White
ETH TX-	Orange
ETH RX+	Green/White
ETH RX-	Green
UART TX	Brown/White
UART RX	Brown

 Note

Power must be applied to the power terminals before applying voltage to UART pins

Terminal Interface

The DVL-A50 has a 3.3 volt UART interface (5V tolerant).

Settings	Value
Baud rate	115200
Data parity stop	8N1
Flow control	None

 Warning

There can be a momentary (<10 us) power spike (~5 V) on the UART lines when power is applied to the DVL, which may damage equipment which is not 5V tolerant.

See the DVL's [serial protocol](#).

Ethernet Interface

See [networking](#) and the DVL's [TCP protocol](#).

Code examples

[Code](#) for parsing of the data outputted by the DVL over TCP.

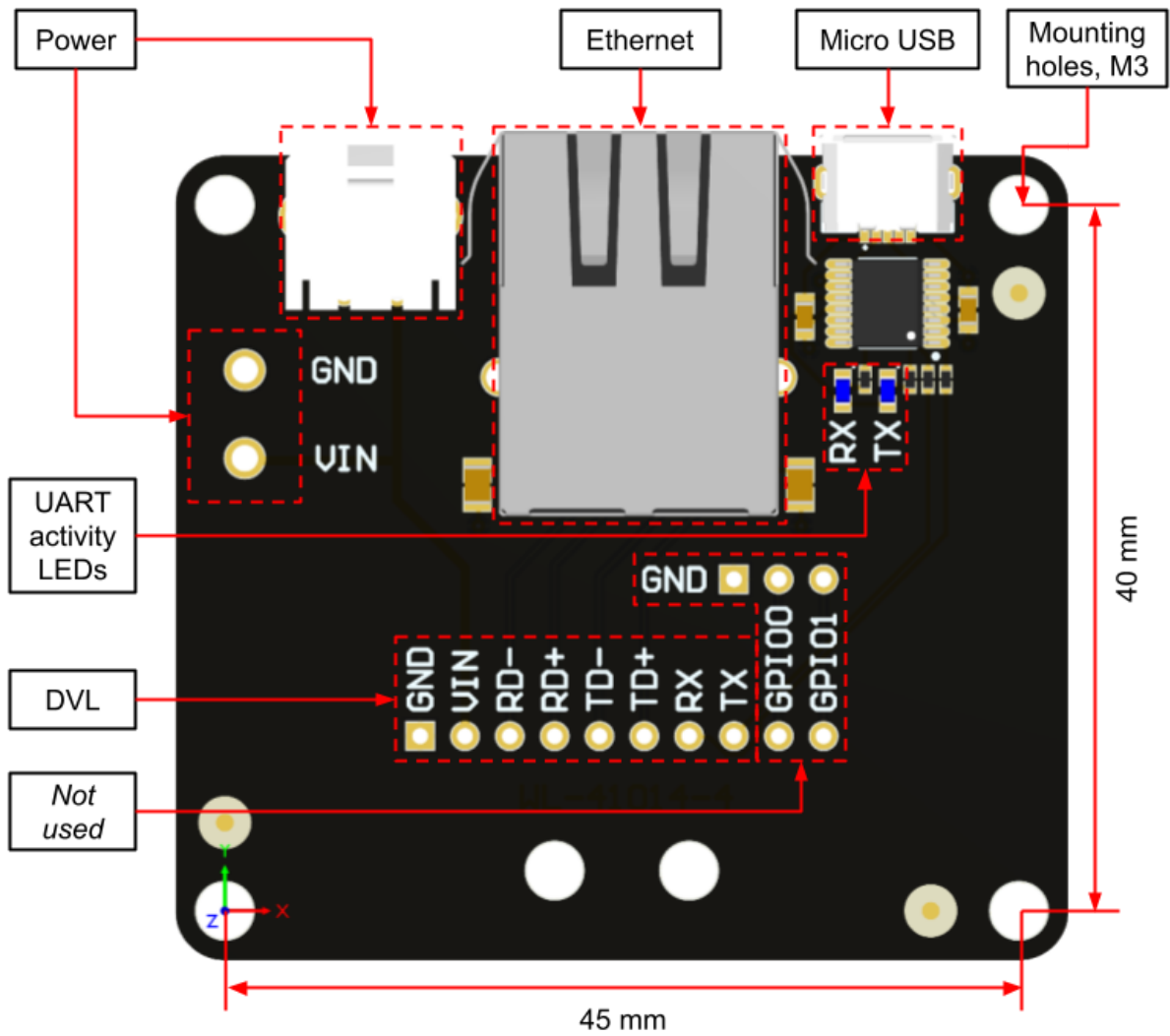
I/O interface

The I/O Interface provides a simple means of connection to the Water Linked DVLs. It provides magnetics for the ethernet connection and utilizes the Molex Micro-Fit 3.0 power connector

which is standard for Water Linked products.

There currently exists three revisions of the I/O Interface. Revision 2 and 3 are electrically identical. Revision 4 has an integrated USB-to-UART interface and a micro USB port.

Revision 4

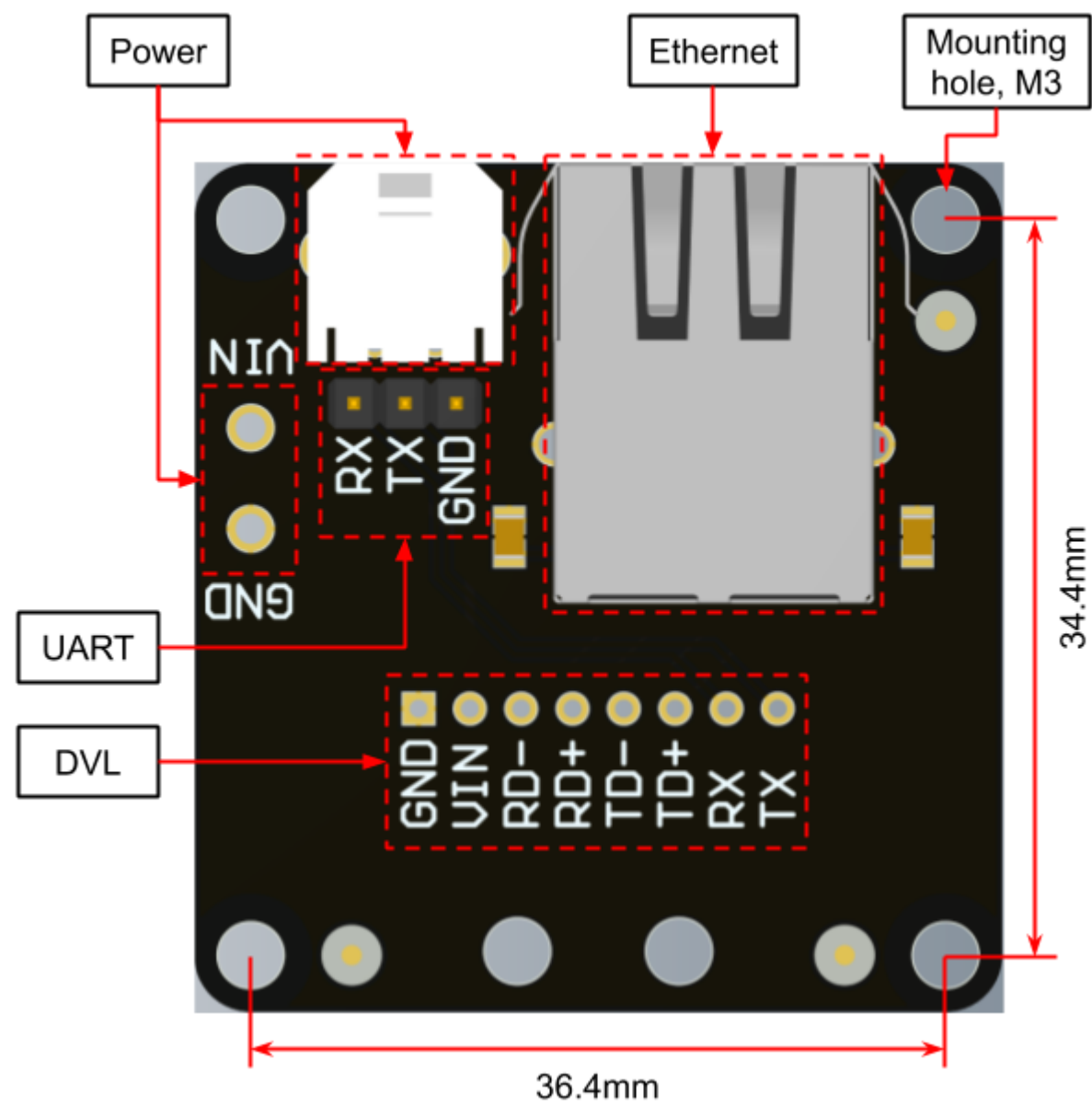


Dimensions: 50.6 x 47 x 18.6 mm (Width x Height x Thickness)

Connector	Function	Comment
RJ45 (8P8C)	Ethernet	10/100 BASE-T
Micro USB	Serial	FTDI based

Connector	Function	Comment
Molex Micro-Fit 3.0	Power	10 - 30 VDC
2x Ø1.5mm pads	Alt. power	Fits Würth 691137710002

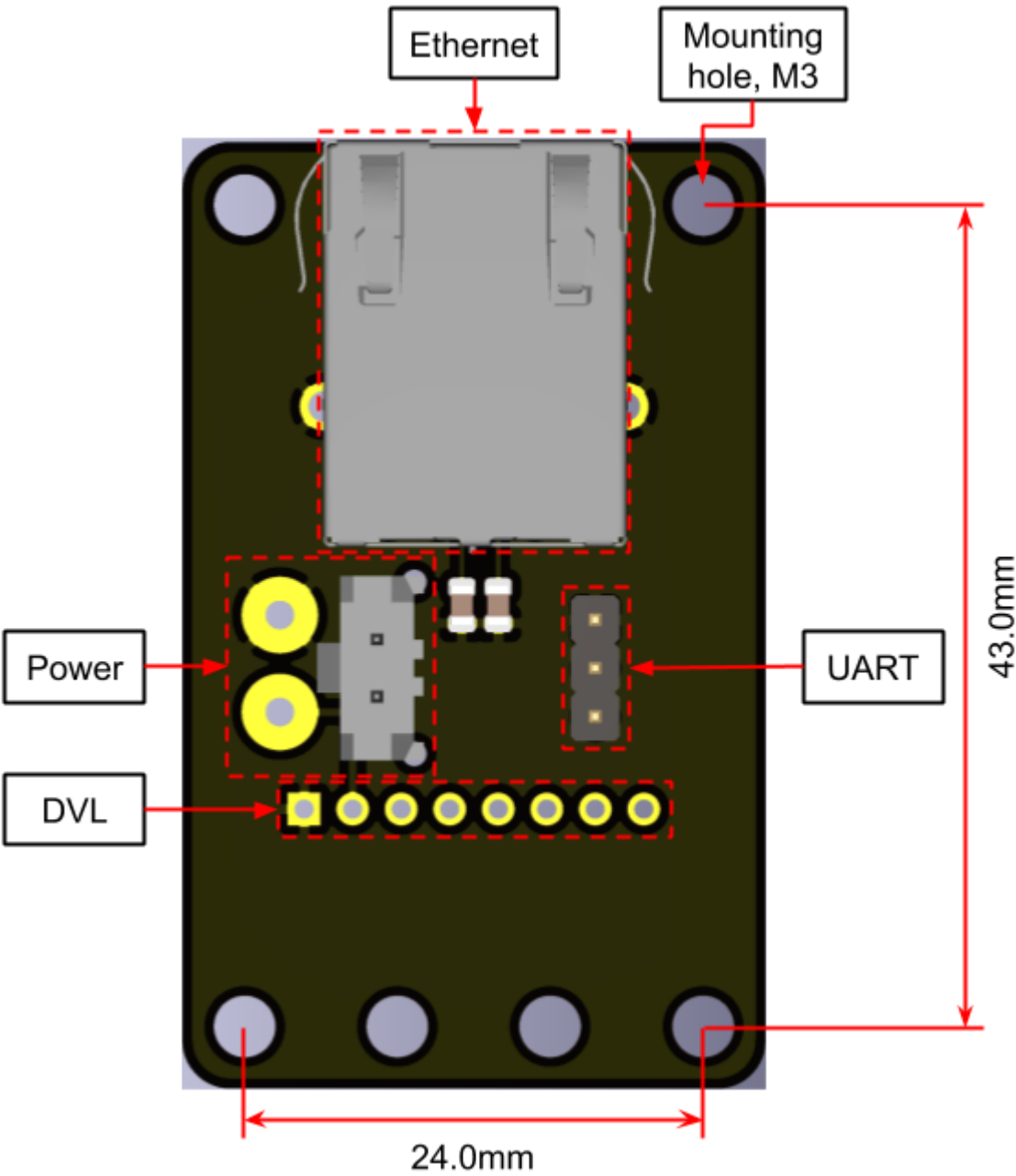
Revision 3



Dimensions: 40 x 42 x 18.6 mm (Width x Height x Thickness)

Connector	Function	Comment
RJ45 (8P8C)	Ethernet	10/100 BASE-T
3x1 header	Serial	TX, RX, GND
Molex Micro-Fit 3.0	Power	10 - 30 VDC
2x Ø1.5mm pads	Alt. power	Fits Würth 691137710002

Revision 2



Dimensions: 30.6 mm x 50 x 18.6 mm (Width x Height x Thickness)

Connector	Function	Comment
RJ45 (8P8C)	Ethernet	10/100 BASE-T
3x1 header	Serial	TX, RX, GND

Connector	Function	Comment
Molex Micro-Fit 3.0	Power	10 - 30 VDC
2x Ø1.5mm pads	Alt. power	

**Note**

The Molex Micro-Fit 3.0 on revision 2 is prone to damage by excessive sideways force. Take care not to yank the power cable when connected.