Atlas**Scientific**™
Environmental Robotics

V 1.0

Released 1/24

i3 Inter**Link**

Raspberry Pi Shield

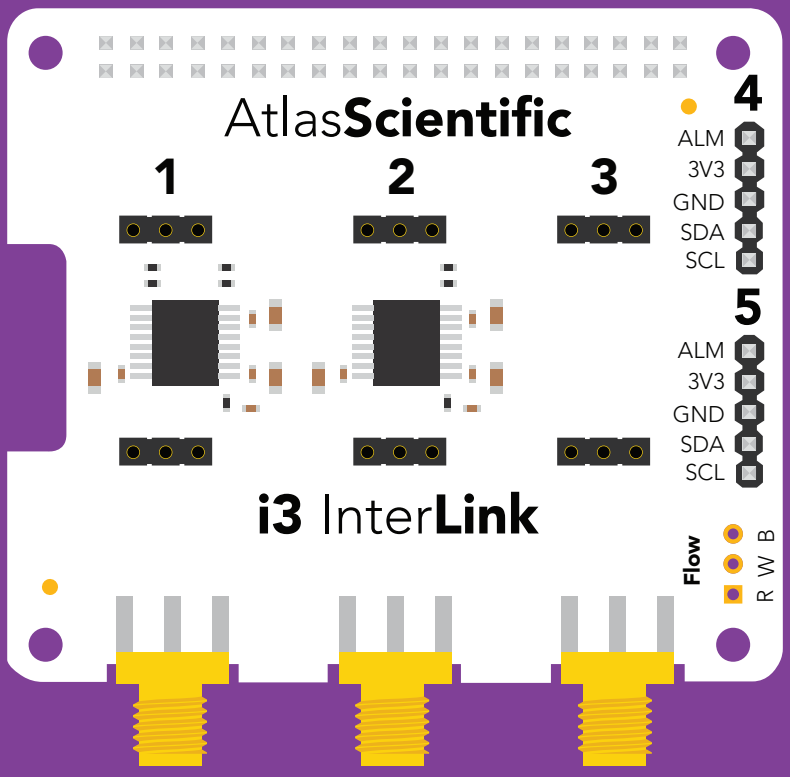
Connect up to five Atlas Scientific sensors to one Raspberry Pi.

All Raspberry Pi pins still accessible through the i3 InterLink.

I2C mode only.

Comes fully assembled.

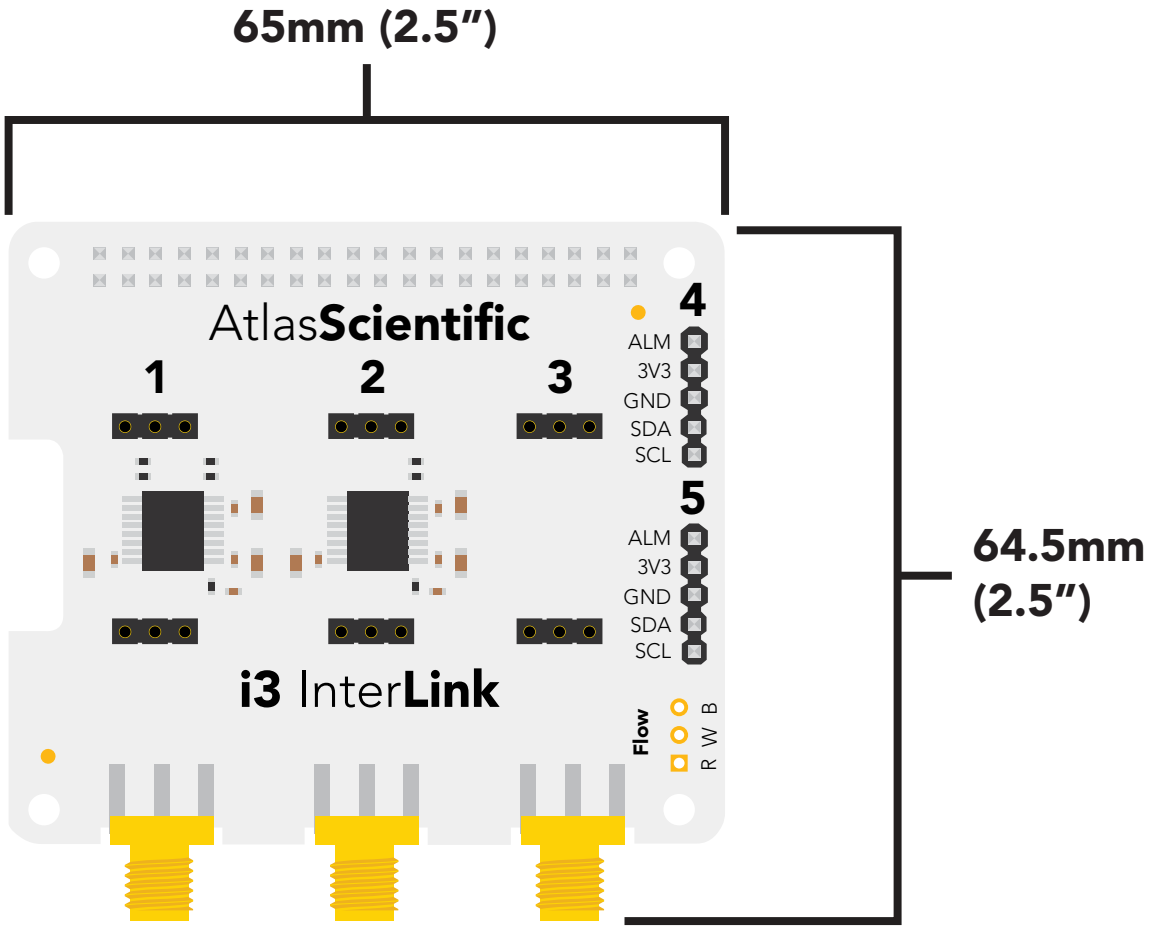
i3 InterLink does not come with any EZO™ circuits or sensors.



Written by Jordan Press
Designed by Noah Press

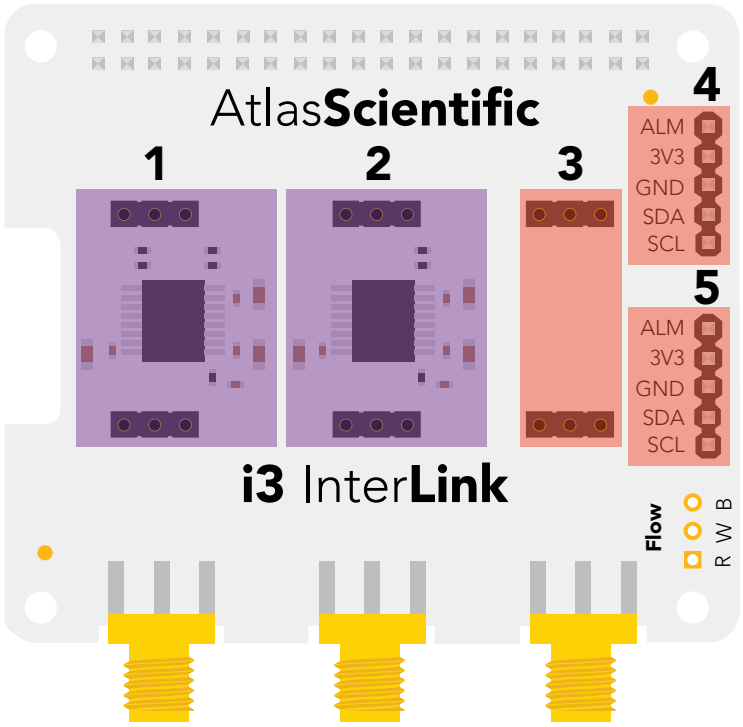
This is an evolving document, check back for updates.

i3 InterLink dimensions

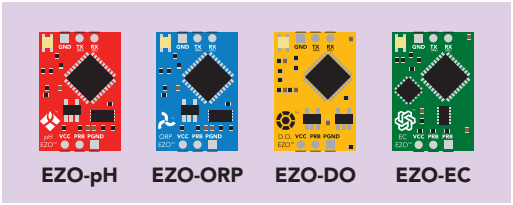


i3 InterLink isolated slots

The i3 InterLink has 2x isolated EZO™ ciruit slots, 1x non-isolated EZO™ circuit slot and 2x non-isolated connectors for 5 pin EZO™ data cable sensors/devices.



Isolated



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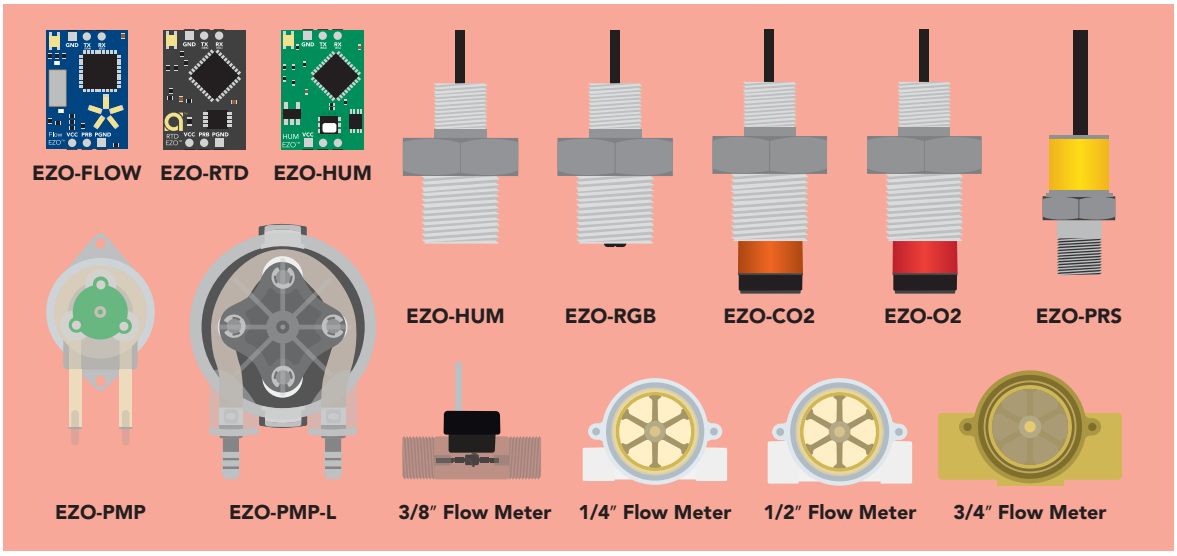
Non-isolated



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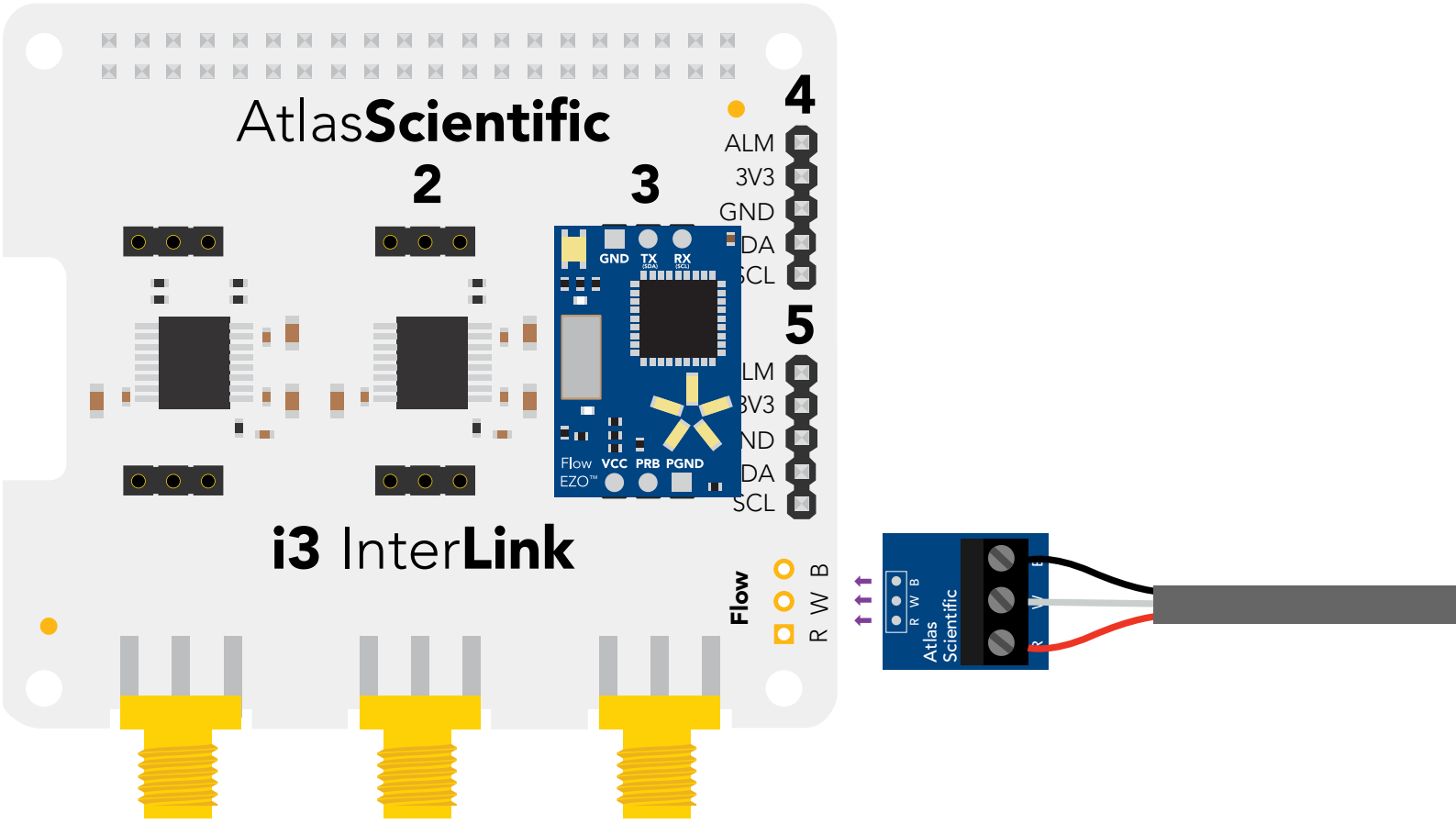
Connecting a flow meter to the i3 InterLink

The i3 InterLink is fully compatable with the EZO™ Universal Flow Meter Totalizer and our line of flow meters. Make sure to place the Totalizer in the non-isolated slot marked "**3**".

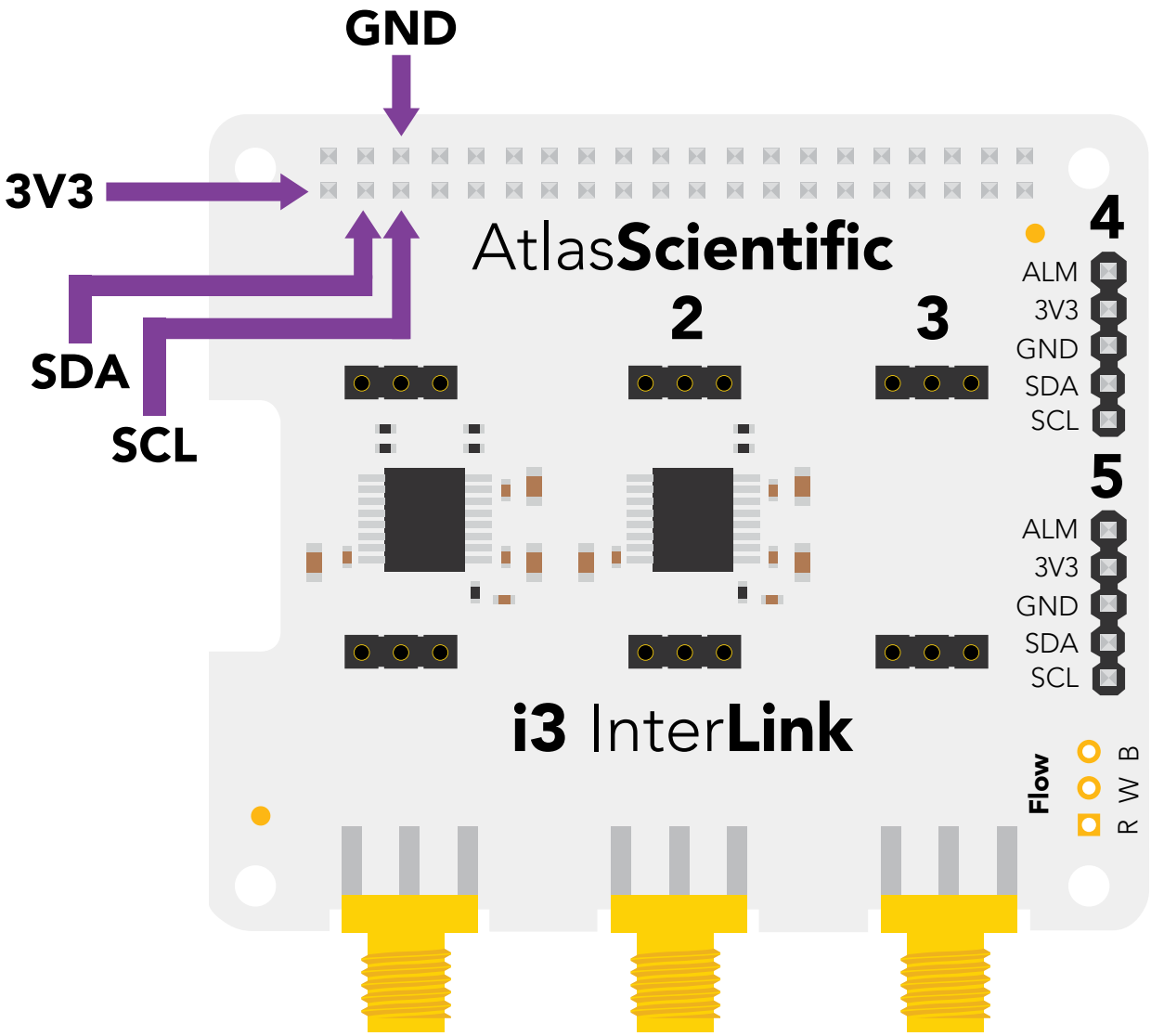


Attach your flow meter to the flow breakout board; Then connect the flow breakout board directly to the i3 InterLink via the flow port.

Raspberry Pi pins

The i3 InterLink uses these Raspberry Pi pins

SCL
SDA
GND
3V3

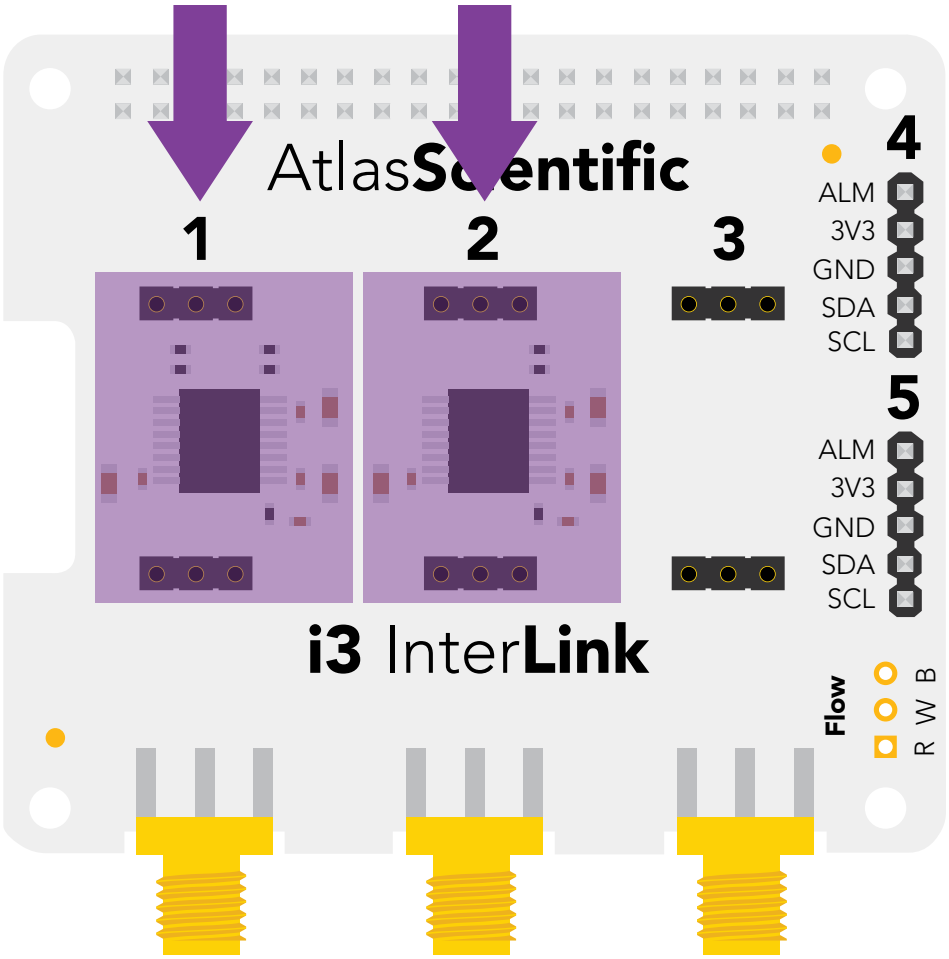


All Raspberry Pi pins (*including the ones used by i3 InterLink)* are still available to you.

Current consumption

The baseline current consumption for the i3 InterLink shield is 56 mA. This is because each isolated channel consumes 28 mA continuously. Adding an EZO circuit to an isolated channel will increase the current consumption.

The table below shows how much current will be consumed when an EZO™ circuit is connected.



Channel 1 = 28mA
Channel 2 = 28mA
Channel 3 = 0mA
Channel 4 = 0mA
Channel 5 = 0mA

Isolated Channels 1 & 2		
	No Load	28mA
	EZO™ pH	44mA
	EZO™ ORP	44mA
	EZO™ Dissolved Oxygen	44mA
	EZO™ Conductivity	55mA