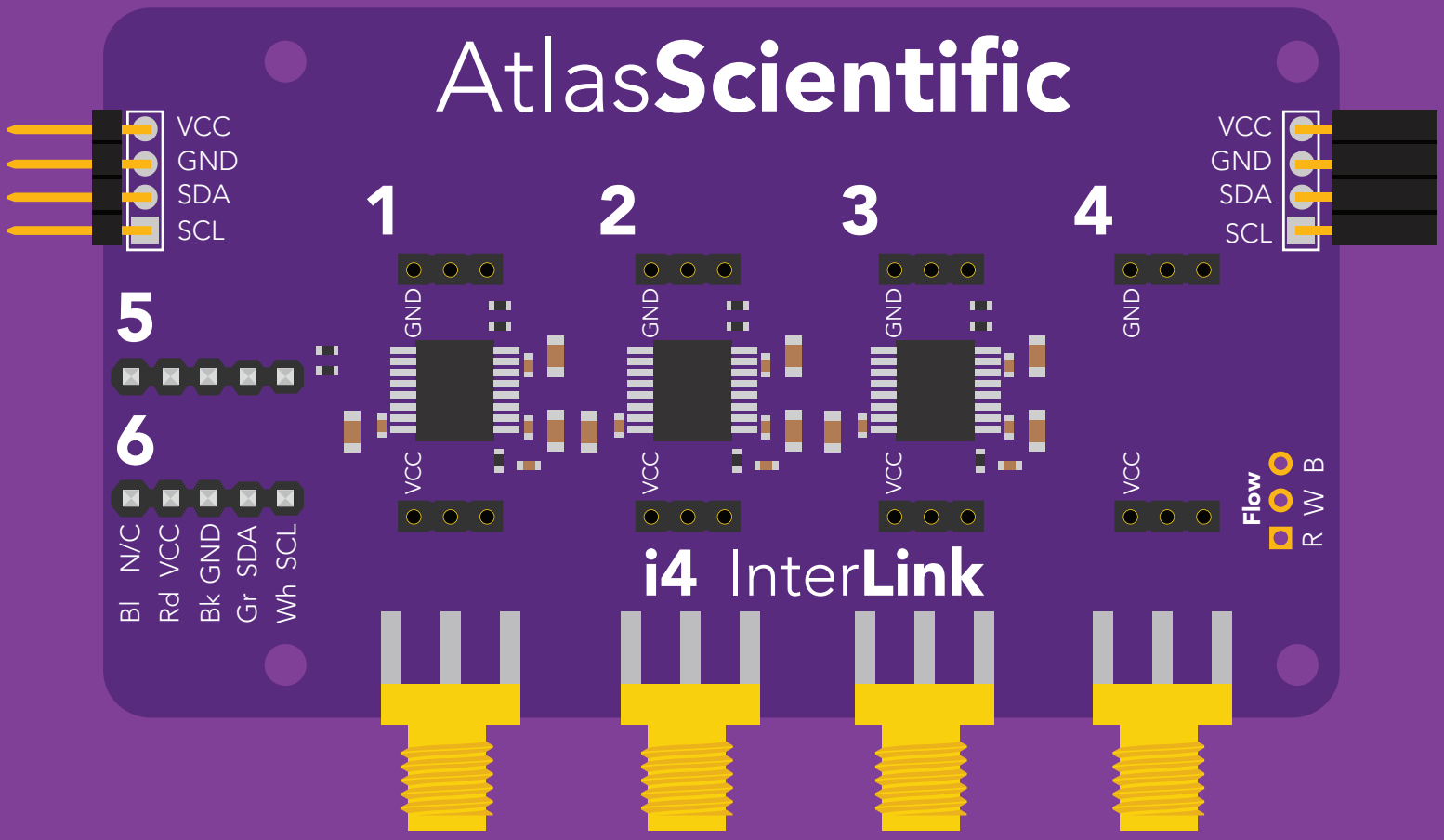
Atlas**Scientific**™
Environmental Robotics

V 1.0

Released 8/25

i4 Inter**Link**

A Universal Shield



Connect up to six Atlas Scientific sensors to a CPU module of your choice.

Comes fully assembled.

I2C mode only.

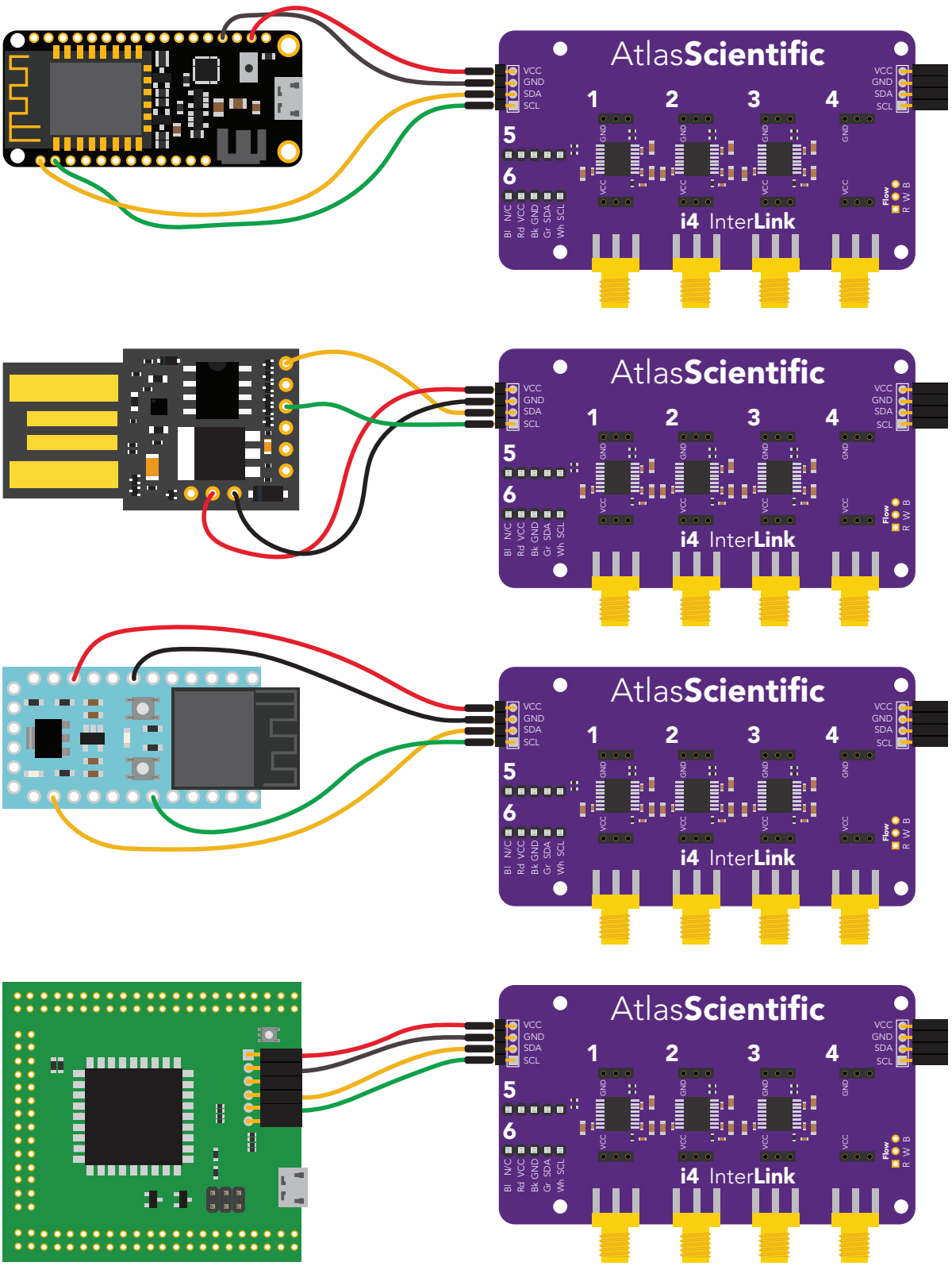
i4 InterLink does not come with any EZO™ circuits or sensors.

Written by Jordan Press
Designed by Noah Press

This is an evolving document, check back for updates.

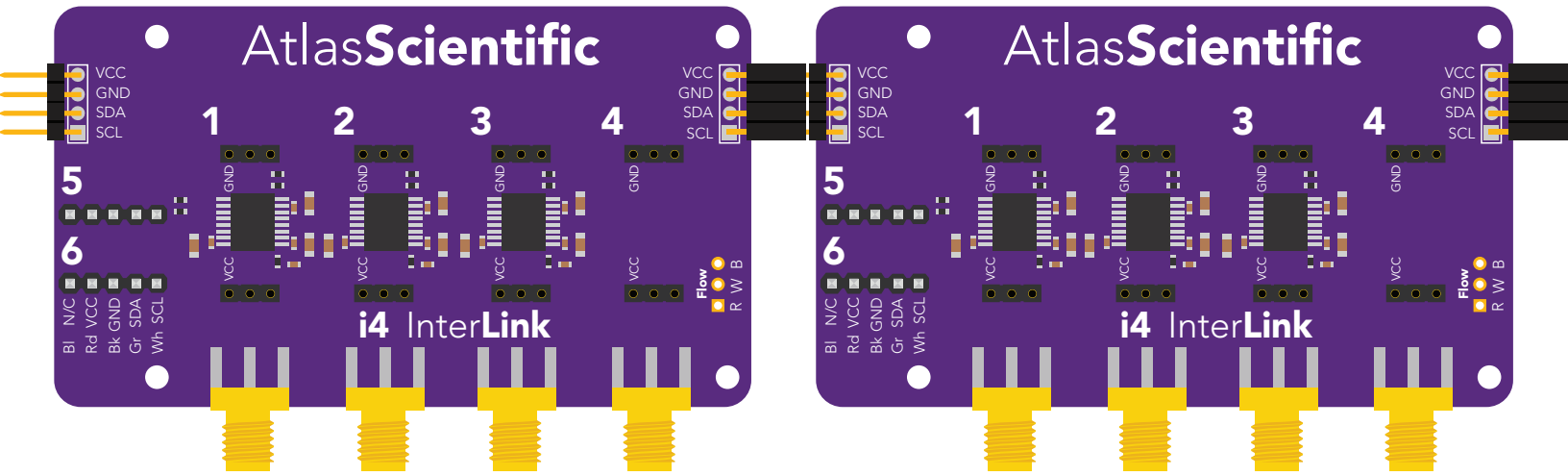
i4 InterLink - CPU module example

The i4 InterLink is a universal shield, designed to be connected to any CPU module.

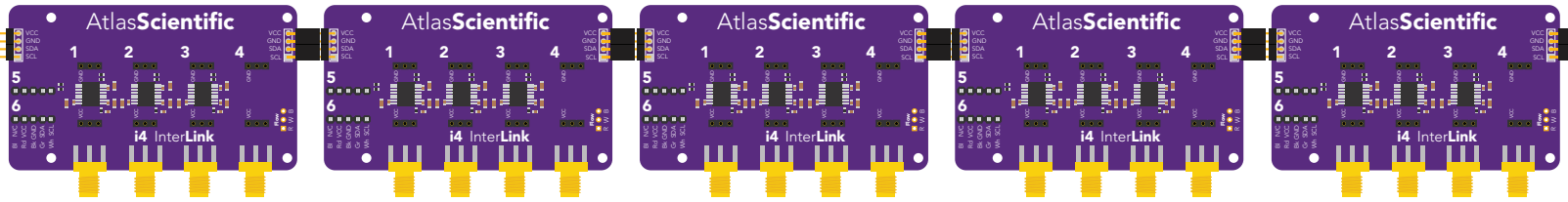


i4 InterLink connection

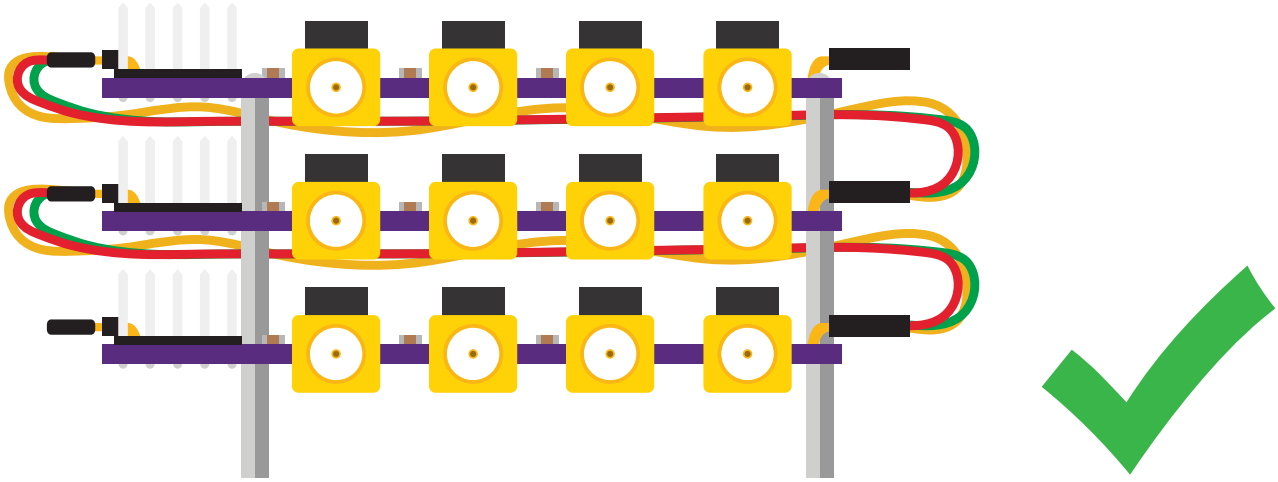
The i4 InterLink can be connected together, to expand the number of sensors connected.



Theoretically, it is possible to connect 32 i4 InterLink shields together. However, stopping I2C signal loss as well as powering that many sensors would become challenging.

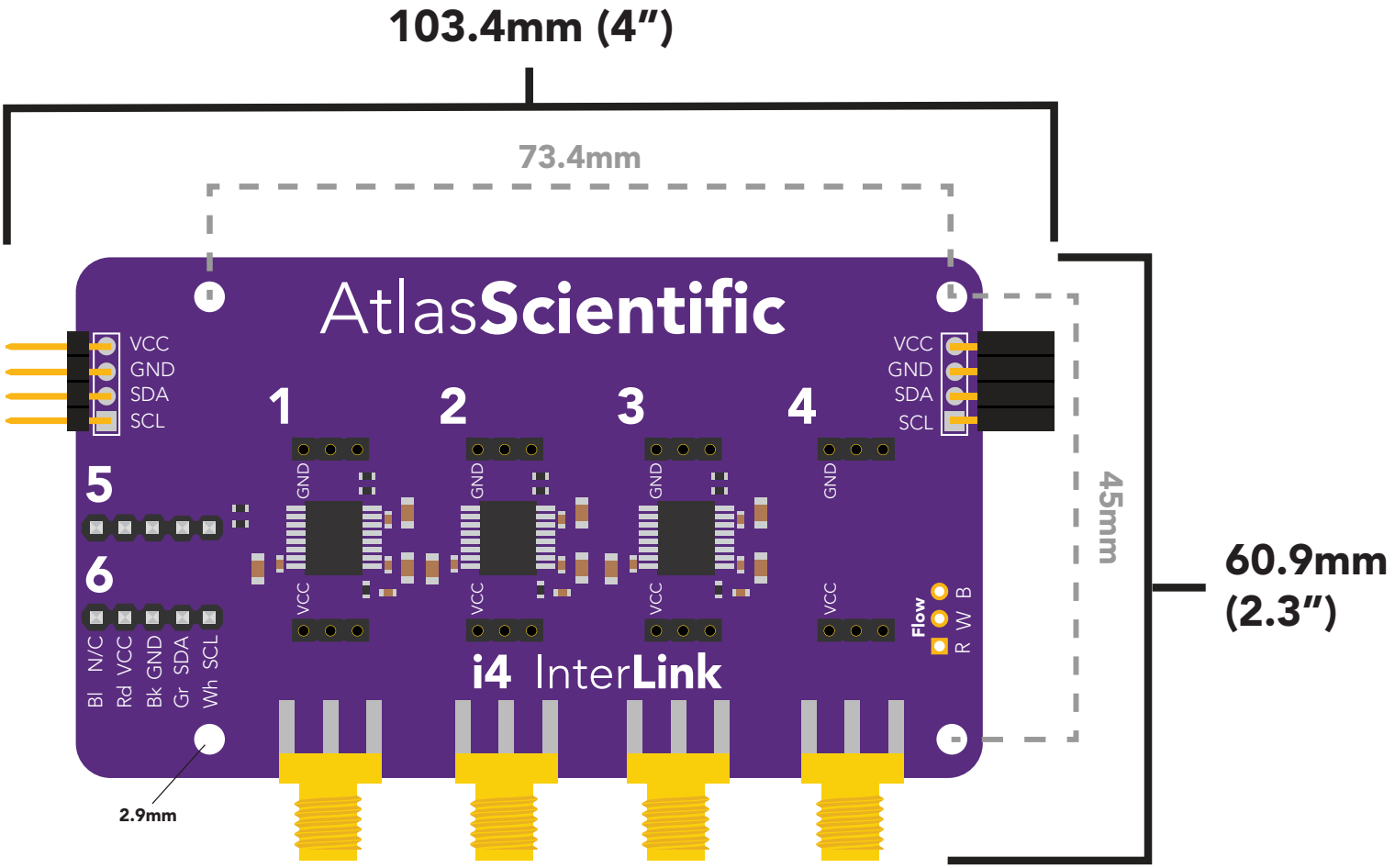


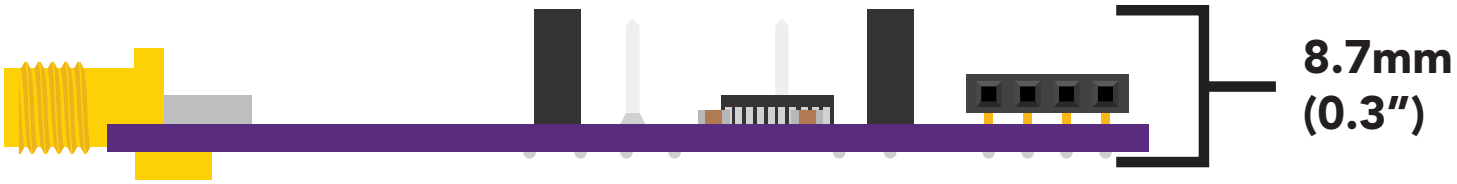
Realistically, the upper limit is approximately ***five*** i4 InterLink shields. However, you would need to provide an external power supply for that many sensors.



Using jumper wires, you can stack i4 InterLink shields vertically.

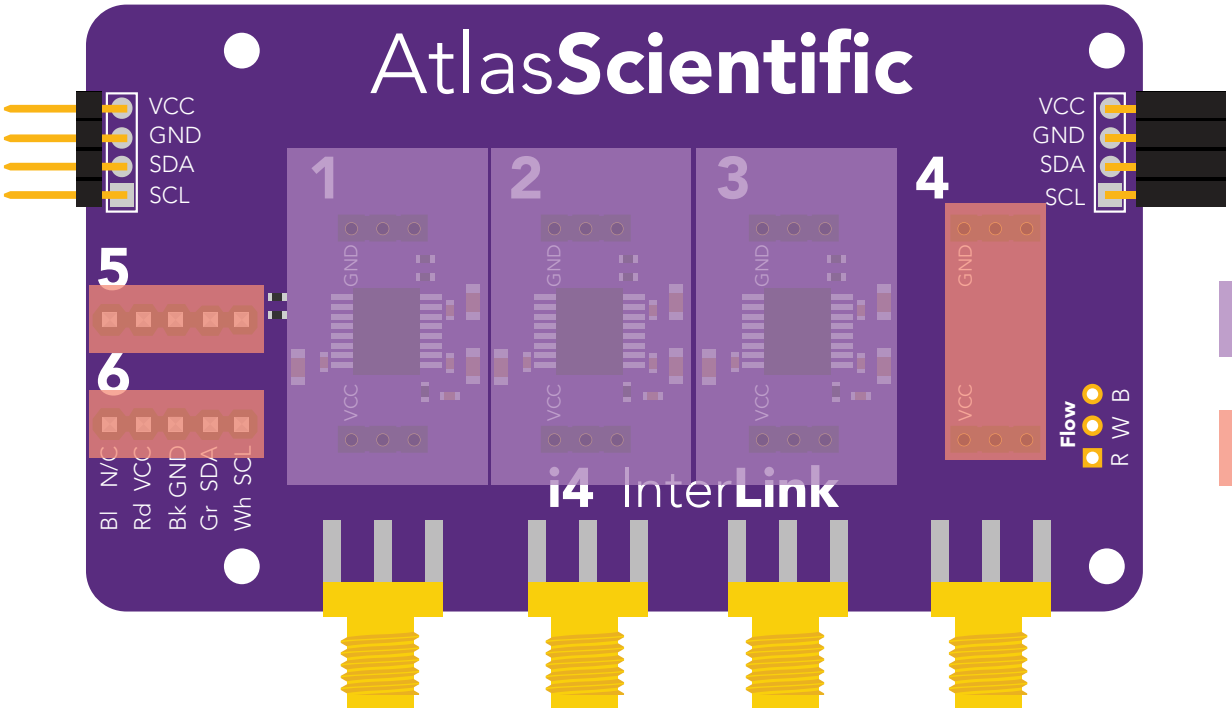
i4 InterLink dimensions



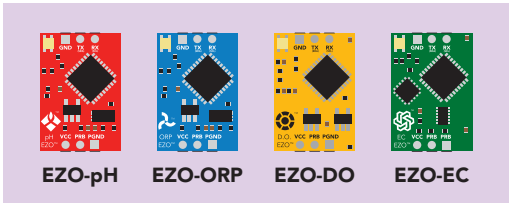


i4 InterLink isolated slots

The i4 InterLink has 3x isolated EZO™ ciruit slots, 1x non-isolated EZO™ circuit slot and 2x non-isolated connectors for 5 pin EZO™ data cable sensors/devices.

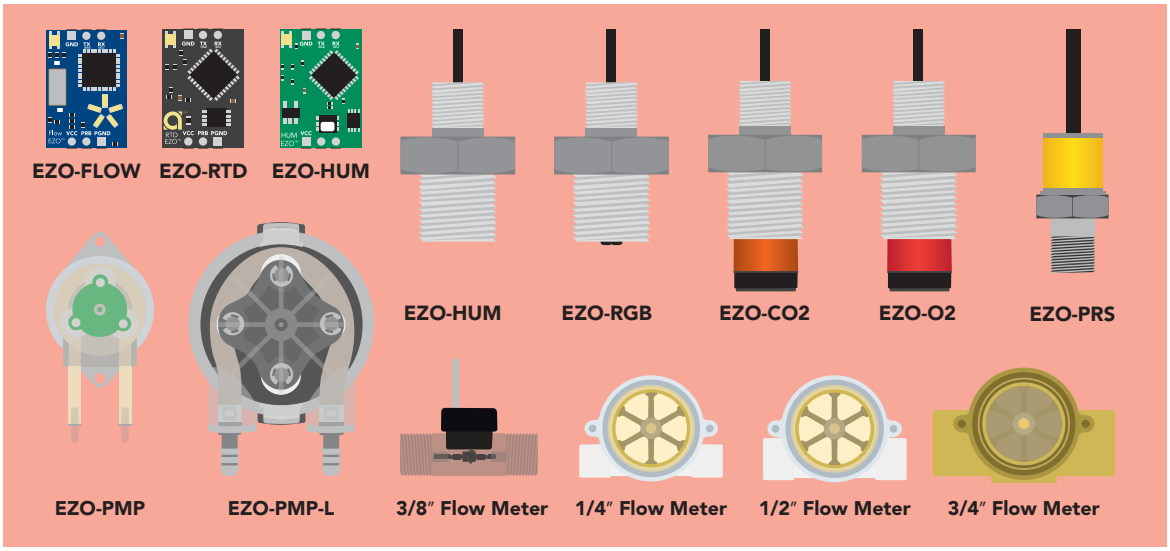


These devices require electrical isolation



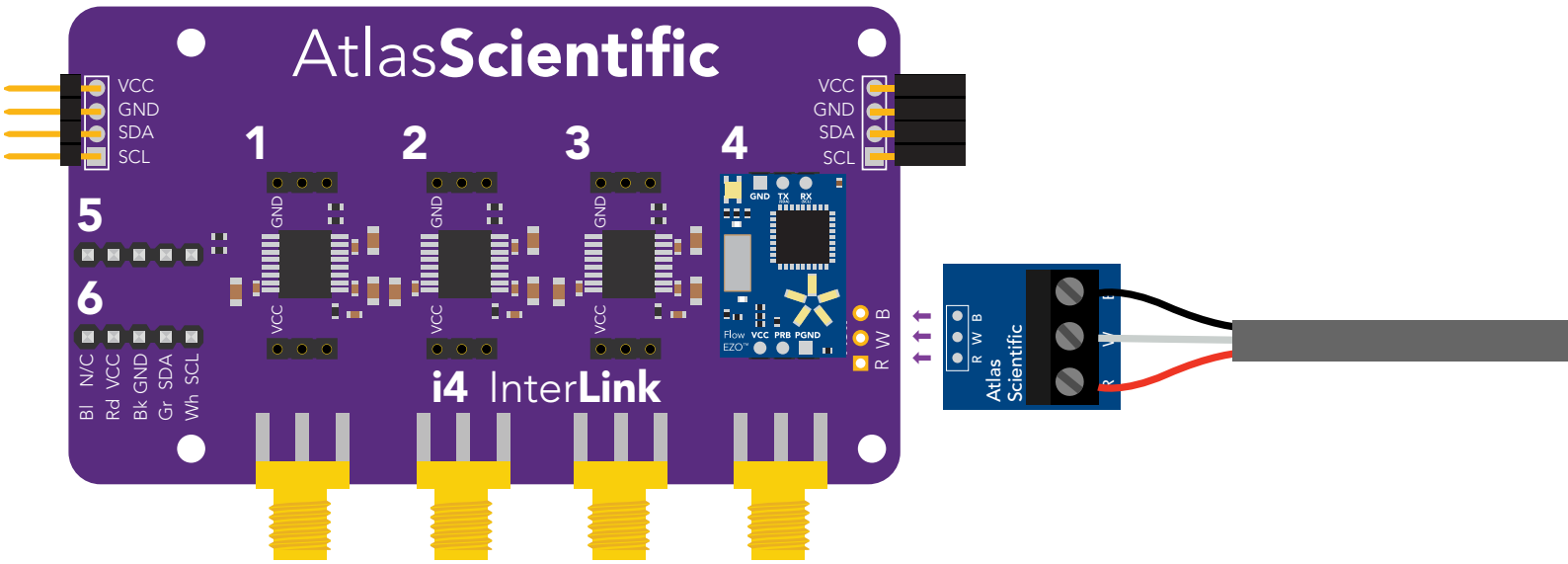
The i4 InterLink does not come with any EZO™ circuits or sensors.

These devices do not require electrical isolation



Connecting a flow meter to the i4 InterLink

The i4 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 "**4**".

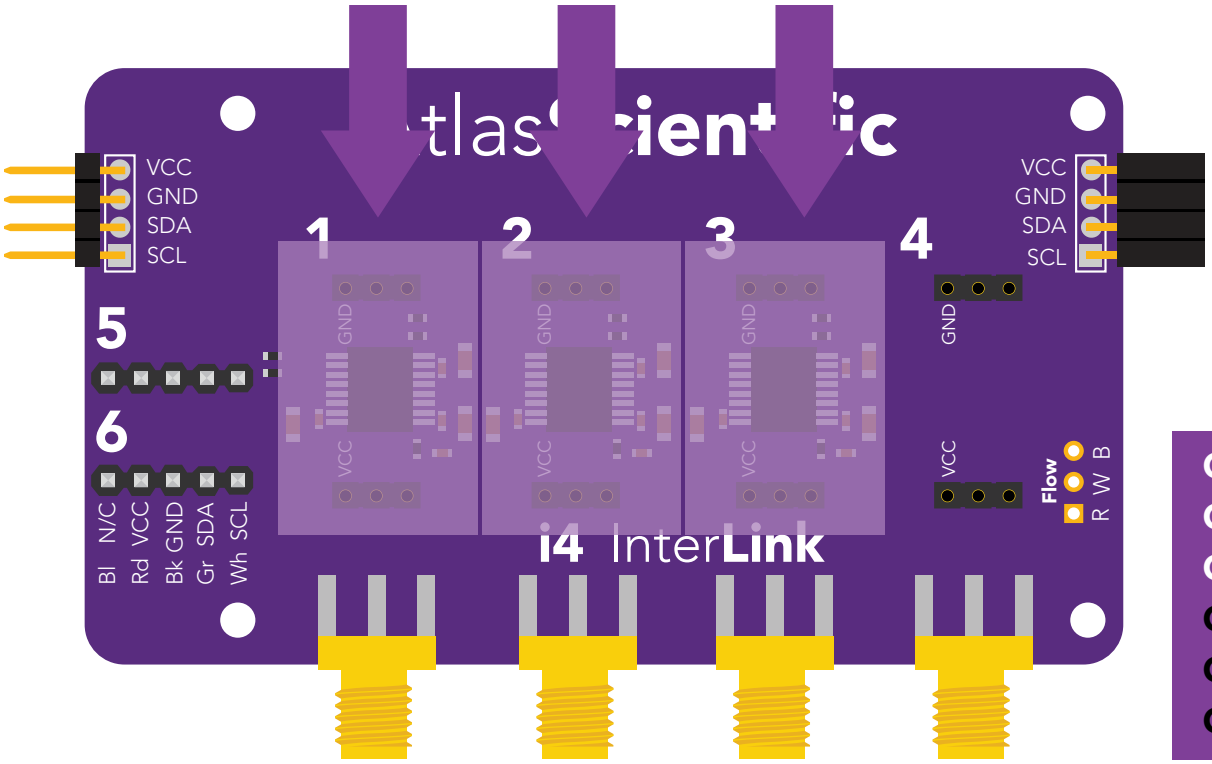


Attach your flow meter to the flow breakout board; Then connect the flow breakout board directly to the i4 InterLink via the flow port.

Current consumption

The baseline current consumption for the i4 InterLink shield is 84 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 = 28mA
Channel 4 = 0mA
Channel 5 = 0mA
Channel 6 = 0mA

Isolated Channels 1, 2 & 3		
	No Load	28mA
	EZO™ pH	44mA
	EZO™ ORP	44mA
	EZO™ Dissolved Oxygen	44mA
	EZO™ Conductivity	55mA