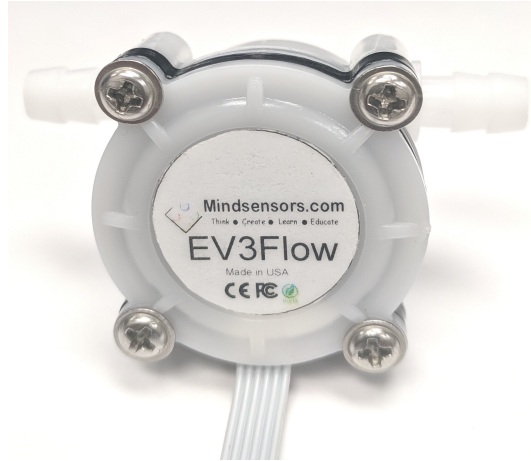


What is EV3Flow

EV3Flow is rotary type flow meter specifically designed to work with Lego Mindstorms EV3 and NXT. EV3Flow can keep track to total volume as well as flowrates.



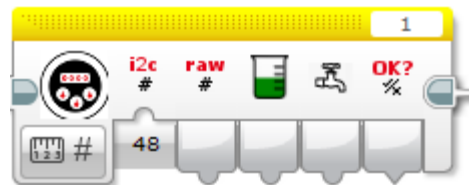
Connections

40 cm built in wire for NXT or EV3
Can be connected to any sensor port of NXT or EV3.
Flow input and output connections are 1/4" barbed connector.

Programming Techniques for writing in I2C mode

EV3 / NXT:

To use capabilities of the sensor, please download EV3 blocks available at following URL:



http://www.mindsensors.com/index.php?controller=attachment&id_attachment=356

Installation instructions for EV3 block are available at:
<http://www.mindsensors.com/content/13-how-to-install-blocks-in-ev3>

Download EV3 sample program from following URL and modify it to suit your needs.

http://www.mindsensors.com/index.php?controller=attachment&id_attachment=357

I2C Operations

Registers provide setup and read Write data

Supported commands:

Commands		Action
ASCII	Hex	
C	0x43	Clear Flow data

I2C Registers:

The EV3Flow appears as I2C registers as follows:

Register	Read	Write
0x00-0x07	Firmware version - V1.10	-
0x08-0x0f	Vendor Id - mndsnsrs	-
0x10-017	Device ID - EV3Flow	-
0x41	-	Command
0x42	Volume in cc	
0x46	Flow rate cc/min	
0x48	Cal Factor	Cal Factor
0x4A	Raw Count	

Current Consumption

Average measured current profile is as follows:

Current Consumption	Condition
3mA	All modes

I2C Bus address

Factory Default Address: 0x38 (d56)

Changing the I2C Bus Address:

The I2C bus address of EV3Flow can be changed. To set an address different from default address, send sequence of following commands on the command register:

0xA0, 0xAA, 0xA5, <new I2C address>

Note: Send these commands with no break/read operation in between. This new address is effective immediately. Please note down your address carefully for future reference.

Read the Changing I2C Address instructions at this the link below:

<http://www.mindsensors.com/blog/how-to/change-i2c-device-address>