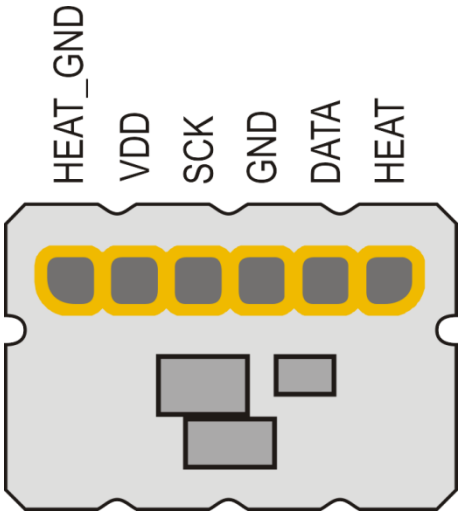
2. Electrical Specifications

2.1 Electrical Characteristics

Electrical properties	Condition	Value		Unit
Interface		I^2C		
Default Sensor Address		64 (h40)		
Update Time	14 bit	0.5		ms
Soft Reset Time		80		ms
Start-up Time[11]	Max.	100		ms
Supply Voltage		5V±5%		V
Communication Level		Min.	Max.	V
	High	2.5	VDD	
	Low	GND	1.1	
Power Consumption[12]		< 50		mW
Electrical Connector		See section 2.2 and 3.2		
External Heater Power Rating	Max.	0.5		W
External Heater Resistance	Typ.	51		Ω
Output Signal Resolution[13]		14		bit
Scale Factor Flow	Air, N2	800		1/slm
Offset Flow		32768		

2.2 Pad Layout



2.3 Conversion to Physical Values

In order to obtain the measured flow in [slm], the measured value needs to be converted using the following formula:

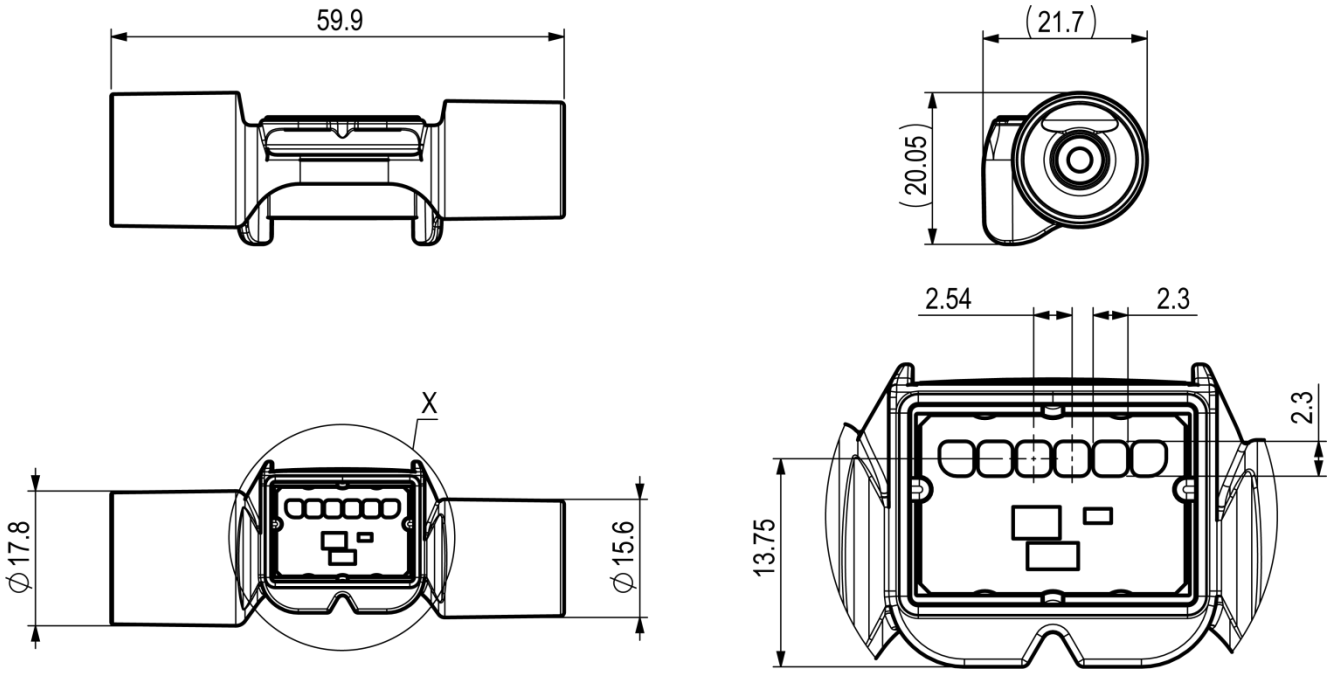
$$flow\ [\text{slm}] = \frac{measured\ value - offset\ flow}{scale\ factor\ flow}$$

Please note that the first measurement performed directly after chip initialization is not valid.

[11] After 4.75V is reached
[12] When the heater resistor on the PCB is not in operation
[13] 16 bit with two least significant bits always zero

3. Mechanical Specifications

All dimensions are in millimeters (mm).



3.1 Mechanical fitting

Fittings of the SFM3400 sensor correspond to the international standard ISO5356-1:2004. Details about this type of connection can be found in the description of the standard.

3.2 Mechanical / Electrical Interface

SFM3400 series has been designed for use in an expiratory environment. Therefore, the sensor has been designed for a connector that can be easily connected and disconnected. The connector itself is not provided as a standard product by Sensirion but Sensirion can help with an application note including design recommendations.

Dimension	Condition	Value
Length		60 mm (typical)
Diameter flow channel	center of sensor	3.5 mm (typical)
Medical connector, distal side	ISO 5356-1	Cone, 15 mm
Medical connector, proximal side	ISO 5356-1	Socket, 15 mm
Dead space	relevant section	0.9 ml (typical)
Weight	without connector	7.5 g (typical)