

DATASHEET
ASM10M-005ND

AIoTSensing

History of Revision

Datasheet Rev.	Date	Note
01	Jul/27/2022	Released

AIOT SENSING



1. Features

- Pressure ranges ± 5 inH₂O
- mV output
- 5V power supply
- Package size is 10mm x 10mm

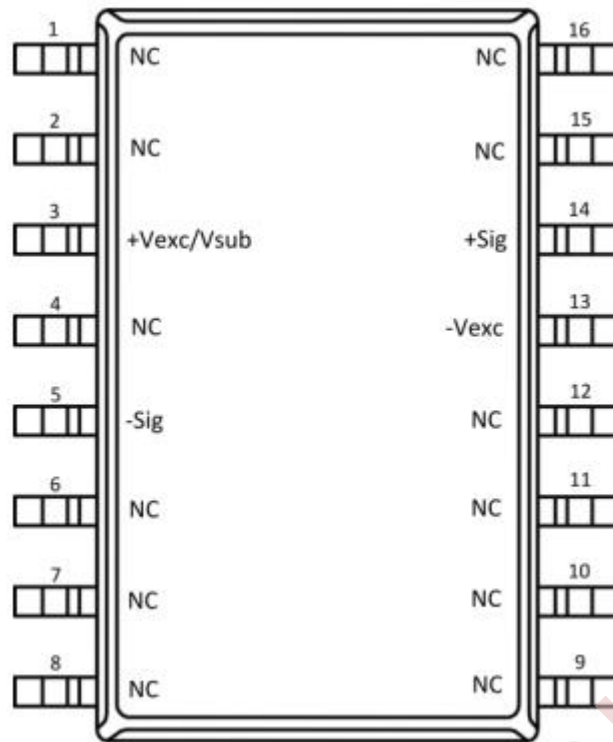
2. Applications

- Medical Breathing
- Industrial Controls
- HVAC
- Environmental Controls
- Portable Equipment

3. Specification

	Min	Nominal	Max	Unit
Excitation voltage		5.0		V
Excitation current		1.5		mA
Bridge impedance	2.7	3.3	3.9	k Ω
Span	15	30	55	mV
Offset	-30	0	30	mV
TC span(constant voltage)	-0.28	-0.2	-0.12	%FS/ $^{\circ}$ C
TC span(constant current)	-0.08	0	0.08	%FS/ $^{\circ}$ C
Linearity	-0.5	± 0.3	0.5	%FS
Hysteresis	-0.5	± 0.3	0.5	%FS
Over Pressure			10	kPa
Operation temperature	-40		125	$^{\circ}$ C
Storage temperature	-40		125	$^{\circ}$ C

4. Pin Configuration and Description

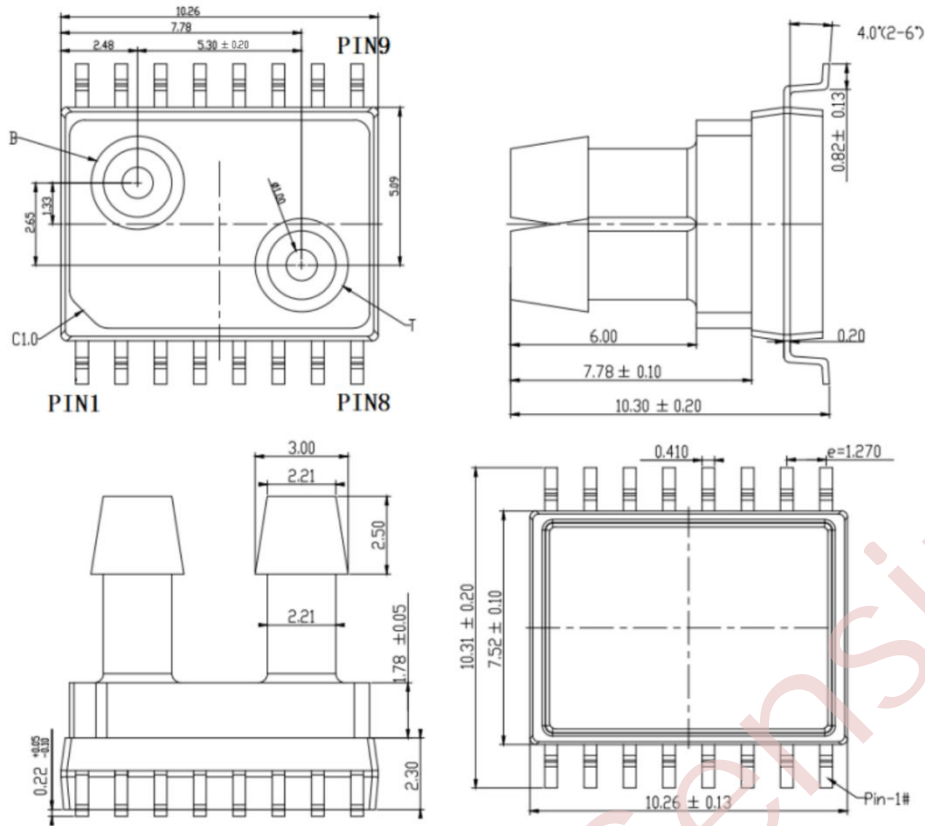


Pin	Name	Type	Function
3	+Vexc	Power	Positive supply voltage
5	-Sig	Output	Analog output
13	-Vexc	Power	Power Ground
14	+Sig	Output	Analog output
Others	NC	NC	Not Connect

NOTE:

- Do not connect to NC pins.

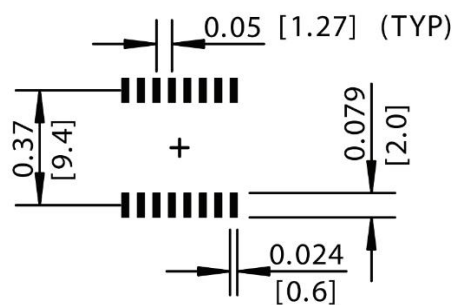
5. Package Outline (SOIC16 mm)



NOTES:

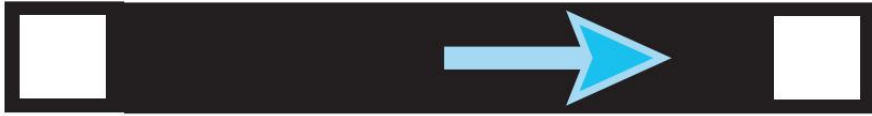
- All dimensions in units of [mm]
- Wetted materials: Silicon, glass, copper, silicone, epoxy, mold compound.
- Tolerance on all dimensions ± 0.13 mm unless otherwise specified.
- [B] is tube connected to bottom side of sensor die, to be connected to the reference pressure.
- [T] is tube connected to top side of sensor die, to be connected to the detection pressure.
- An increase in top pressure will result in an increase in sensor output

6. Recommended Pad Layout (unit: mm)



7.Packing Options

TUBE



8.How to Order

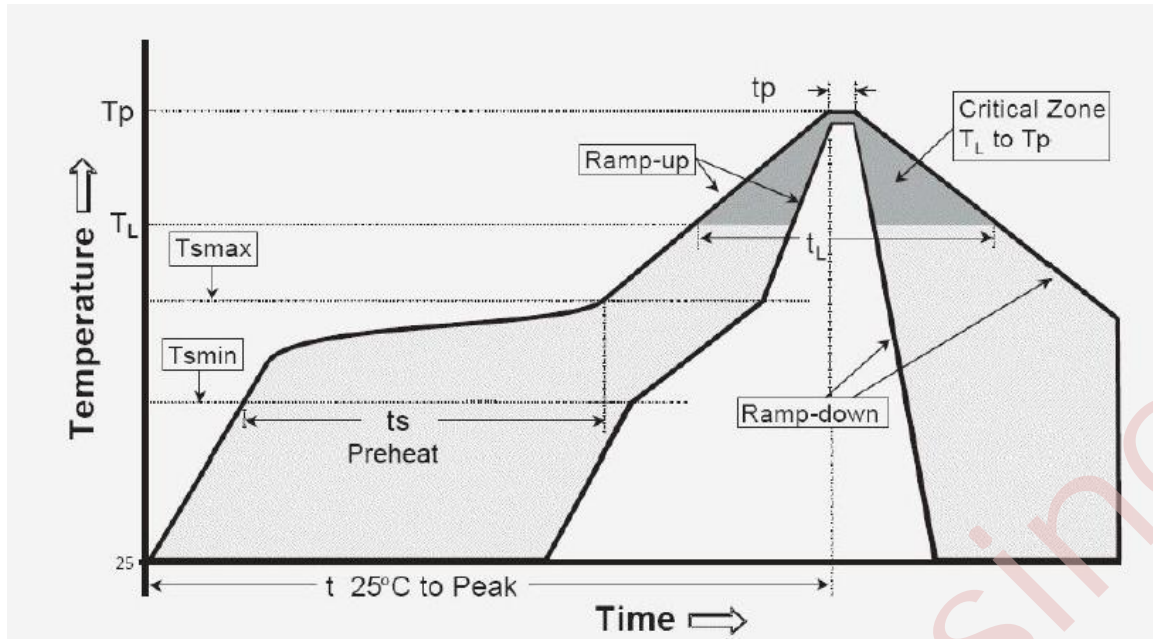
ASM10M-005ND,±5inH2O,differential

9. Product Identification on Backside of Device

All products are labeled via laser marking as the below Example.
AloTSensing is an abbreviation for AloTSensing Inc.

Example: 0 AloTSensing
ASM10M-005ND
0-1A0BABB-165

10. Soldering Recommendation (IPC/JEDEC J-STD-020D)



IPC/JEDEC J-STD-020D	Pb-Free Assembly
Average Ramp-up rate (TL-Tp)	3°C/s (Max.)
Preheat	
–Temperature Min. (Tsmin)	150°C
–Temperature Max. (Tsmax)	200°C
–Time (Min. to Max.) (ts)	60-180 seconds
Tsmax to TL –Tp	3°C/s (Max.)
Time maintained above:	
–Temperature (TL)	217°C above
–Time (tL)	60-150 seconds
Peak temperature (Tp)	220~245°C
Time of Real peak temperature within 5°C (tp)	40 seconds
Average Ramp-down rate (Tp-TL)	6°C/s (Max.)
Time 25°C to peak temperature	8min. (Max.)

Note:

- 1) It is recommended that only one time reflow soldering, no more than two times.
- 2) After reflow soldering or other high temperature processes, wait for at least 48 hours (or as required by the data sheet) before data reading and processing.
- 3) Spot cleaning by hand if necessary, DO NOT wash or submerge sensor in cleaning liquid.

11. Legal Disclaimer

- 1) For the export of products which are controlled items subject to foreign and domestic export laws and regulations, you must obtain approval and/or follow the formalities of such laws and regulations.
- 2) Products must not be used for military and/or antisocial purposes such as terrorism, and shall not be supplied to any party intending to use the products for such purposes.
- 3) Unless provided otherwise, the products have been designed and manufactured for application to equipment and devices which are sold to end-users in the market.
- 4) Before using products, which were not specifically designed for use in automotive applications, please contact an AIOT sales representative.
- 5) This specification is subject to change without notice.

AloTSensing Inc.

TEL: +86 0551-65336537

Email: sales@aiotsensing.com

Website: <http://www.aiotsensing.com>

Address: 2nd Floor, Building 4, Mingzhu Industrial Park, No. 106, Chuangxin Avenue, High-tech Zone,
Hefei City, 230088 China