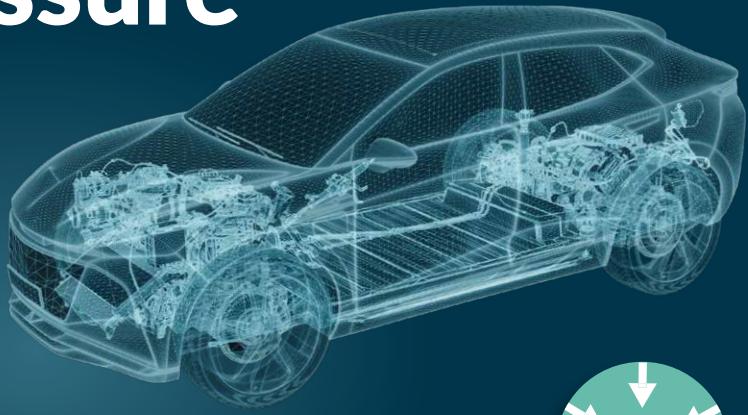


# Triphibian™ pressure sensors ICs

Triphibian™ sensor ICs are miniaturized MEMS pressure sensor ICs handling the measurement of gas and liquid media from 2 to 70 bar in a robust way. The factory-calibrated devices measure the absolute pressure and offer versatile output options, delivering signals in either analog or digital formats. Different calibrated ranges are available to suit specific application needs.

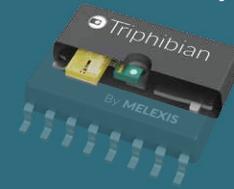


## Key features

- ✓ Absolute pressure 2 to 70 bar in liquid and gas media
- ✓ Compliant with chemical refrigerant
- ✓  $\pm 0.5\%$  full scale lifetime accuracy
- ✓ Configurable diagnostics
- ✓ Factory calibrated and fully programmable (custom curve)
- ✓ Extended voltage capabilities  $\pm 40$  V (supply & output)
- ✓ Temperature range  $-40^\circ\text{C}$  to  $150^\circ\text{C}$
- ✓ Package, RoHS compliant, SOIC16 WB
- ✓ Certifications
  - AEC-Q100 (automotive)
  - AEC-Q103-002 (pressure sensor MEMS)
  - ASIL compliant developed as SEooC (ISO 26262)

## Highlights

|                 |   |
|-----------------|---|
| <b>MLX90830</b> | <ul style="list-style-type: none"><li>• Analog ratiometric output</li><li>• ASIL A</li></ul>                        |
| <b>MLX90833</b> | <ul style="list-style-type: none"><li>• LIN output</li><li>• Optional NTC input</li><li>• ASIL B</li></ul>          |
| <b>MLX90834</b> | <ul style="list-style-type: none"><li>• Digital SENT output</li><li>• Optional NTC input</li><li>• ASIL B</li></ul> |



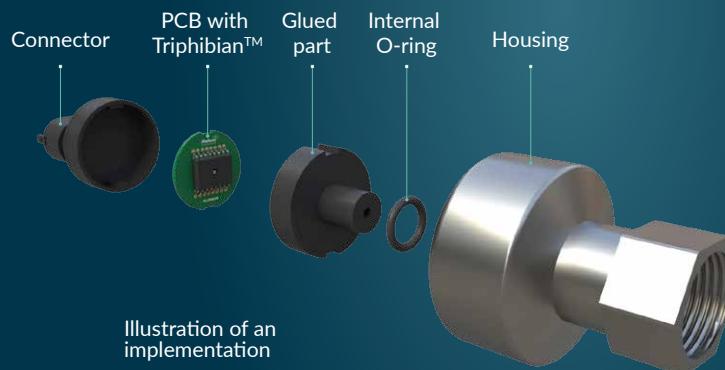
Suspended cantilever with the membrane at its tip

## Applications

- ✓ Thermal Management of Electric Vehicles
  - Standalone sensors
  - Embedded sensors in expansion valves
  - Embedded sensors in e-compressors
  - Embedded sensors in pumps
- ✓ HVAC-R systems
- ✓ Engine or transmission oil monitoring

A.I. and 3D

**Gas and liquid media from 2 to 70 bar**  
**Factory calibrated**



[www.melexis.com/  
Triphibian-sensors](http://www.melexis.com/Triphibian-sensors)