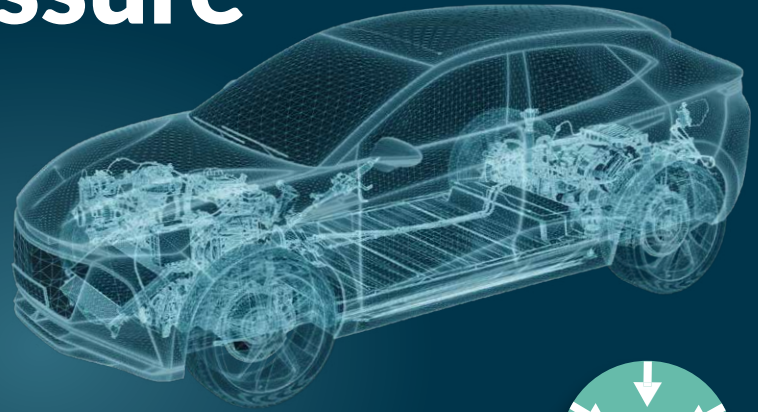


Triphibian™ pressure sensors ICs

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.

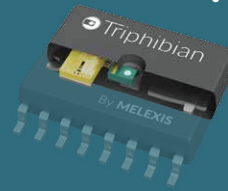


Key features

- ✓ 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 ± 40 V (supply & output)
- ✓ Temperature range -40°C to 150°C
- ✓ Package, RoHS compliant, SOIC16 WB
- ✓ Certifications
 - AEC-Q100 (automotive)
 - AEC-Q103-002 (pressure sensor MEMS)
 - ASIL compliant developed as SEooC (ISO 26262)

Highlights

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



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

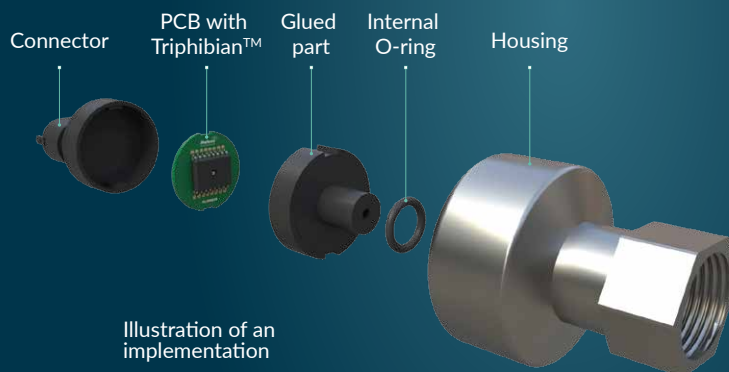


Illustration of an implementation



www.melexis.com/Triphibian-sensors

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