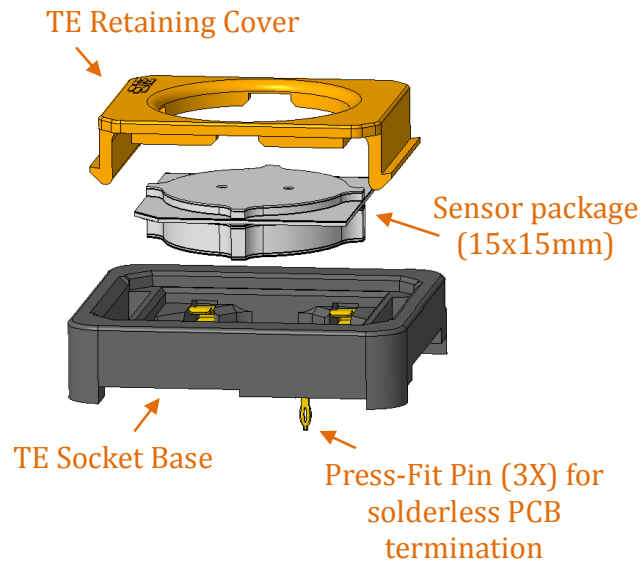# CONCEPTbrief

GAS SENSOR SOCKET

Description

TE Connectivity's proposed socket for SPEC Sensors brand gas sensors provides a solderless press fit electrical connection to the PCB while maintaining the sensor's low profile height advantage.

The socket's press-fit connection is a proven solderless technology used in electrical systems throughout the interconnection industry.

Further adding value, the sensor can be pre-assembled into the socket for ease of installation and reduced processing time during manufacturing.

TE Retaining Cover

Sensor package (15x15mm)

TE Socket Base

Press-Fit Pin (3X) for solderless PCB termination

Applications

- Smart Home Appliances
  - o Carbon Monoxide Alarms
  - o Smoke and Carbon Monoxide Detectors
- Building Automation
  - o Indoor Air Quality Monitoring
  - o Ventilation Control
- Smart City
  - o Air Pollution Monitoring Nodes
- Breath Analyzers

Benefits

- Solderless PCB termination
- Low profile height advantage of sensor maintained
- Sensor packaging is simplified for the manufacturer
- Ability to replace sensor

Features

- Press-fit contacts
- Polarization of sensor to socket base
- Removable retaining cover
- Option to increase height and clearance under socket base freeing PCB real estate for additional component placement

CONCEPTbrief
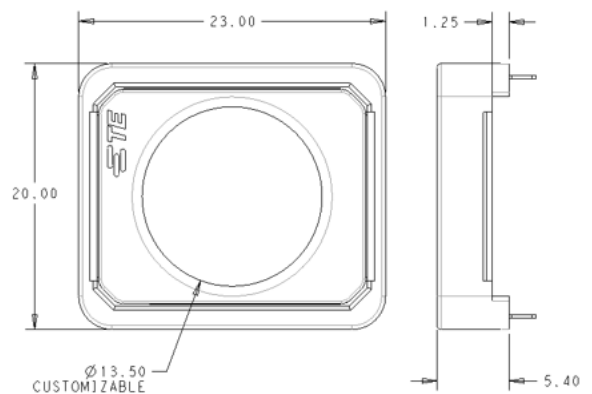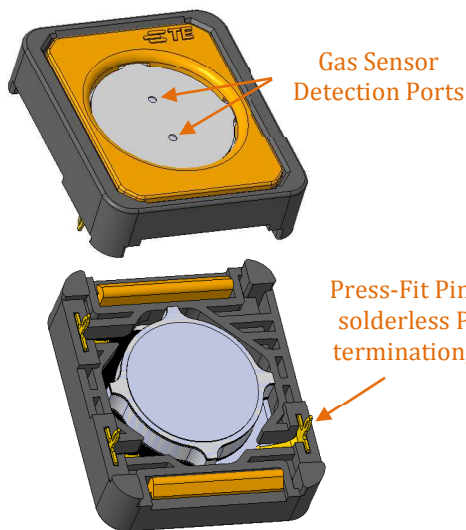
Design Details

Standards & Specifications

- Temperature: -30℃ to +55℃
- Humidity: non-condensing humidity environment
- RoHS compliant

Product Offering

- Socket Base and Retaining Cover (gas sensor sold separately)
- Pre-assembled socket w/ CO (Carbon Monoxide) sensor

Product Dimensions

TE Sensor Socket with 15x15mm
SPEC Sensor Gas Sensor Installed

Gas Sensor
Detection Ports

Press-Fit Pin for
solderless PCB
termination, 3X

23.00 1.25
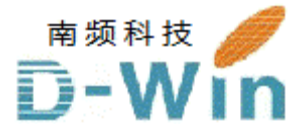
20.00

Ø13.50
CUSTOMIZABLE

5.40

Note: Options exist to

1) change solderless press-fit contacts to soldertails requiring solder attach of socket base followed by hand assembly of sensor and retaining cover.

2) increase the PCB standoff dimension from 1.25mm to 2.0mm to accommodate the placement of components on the PCB under the socket housing.

For more information, please contact:
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≡TE
connectivity

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