Sensoric HF 3E 10 SE

Hydrogen Fluoride (HF) Gas Sensor
Patent: US 6423209 B1

Product Data Sheet

Key Features & Benefits:

- **Class leading stability**
- **Low zero drift**
- **Highly sensitive**
- **Highly selective for acid gases**

Technical Specifications

MEASUREMENT

Operating Principle	3-electrode electrochemical
Measurement Range	0-10 ppm
Filter	None
Sensitivity	300 ± 100 nA/ppm (negative signal)
Response Time (T_{90})	< 90 s calculated from 3 min exposure time
Baseline Offset (clean air)	< ±30 nA
Repeatability	< 10% of full scale
Linearity	< 10% of full scale

ELECTRICAL

Recommended Load Resistor	None
Bias Voltage	Not required
Resolution (Electronics dependent)	< 150 ppb

MECHANICAL

Housing Material	ABS
Weight	2.3 g (Mini) 3.3 g (Classic) 2.8 g (Smart) 4.6 g (4 Series) 6.9 g (7 Series)
Recommended Orientation	sensor front pointing downwards or sidewards

ENVIRONMENTAL

Typical Applications	TLV-monitoring, leakage detection, Portable & fixed point applications
Operating Temperature Range	-20°C to +40°C
Operating Pressure Range	Atmospheric ± 10%
Operating Humidity Range	15% to 90% r.h. non-condensing

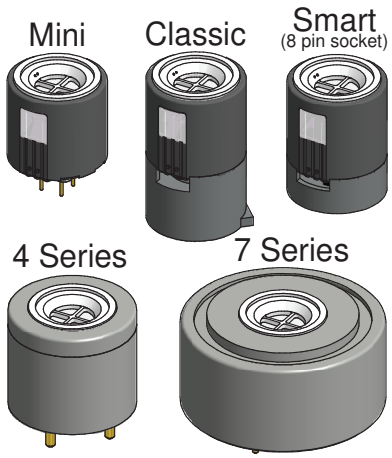
INTRINSIC SAFETY DATA

Maximum at 10ppm	0.4 µA
Maximum o/c Voltage	< 500 mV
Maximum s/c Current	500 µA

LIFETIME

Long Term Output Drift	< 10% per 6 months
Expected Operating Life	> 18 months in air
Storage Life	8 weeks in sealed container
Standard Warranty	12 months from date of despatch

Available in:



Part Numbers

HF	Part Number
Mini	1336-932-30009
Classic	1336-932-30069
Smart (8 pin socket)	1336-932-32259
4-Series	1336-932-30049
7-Series	1336-932-30079
Transmitter	1336-932-30659

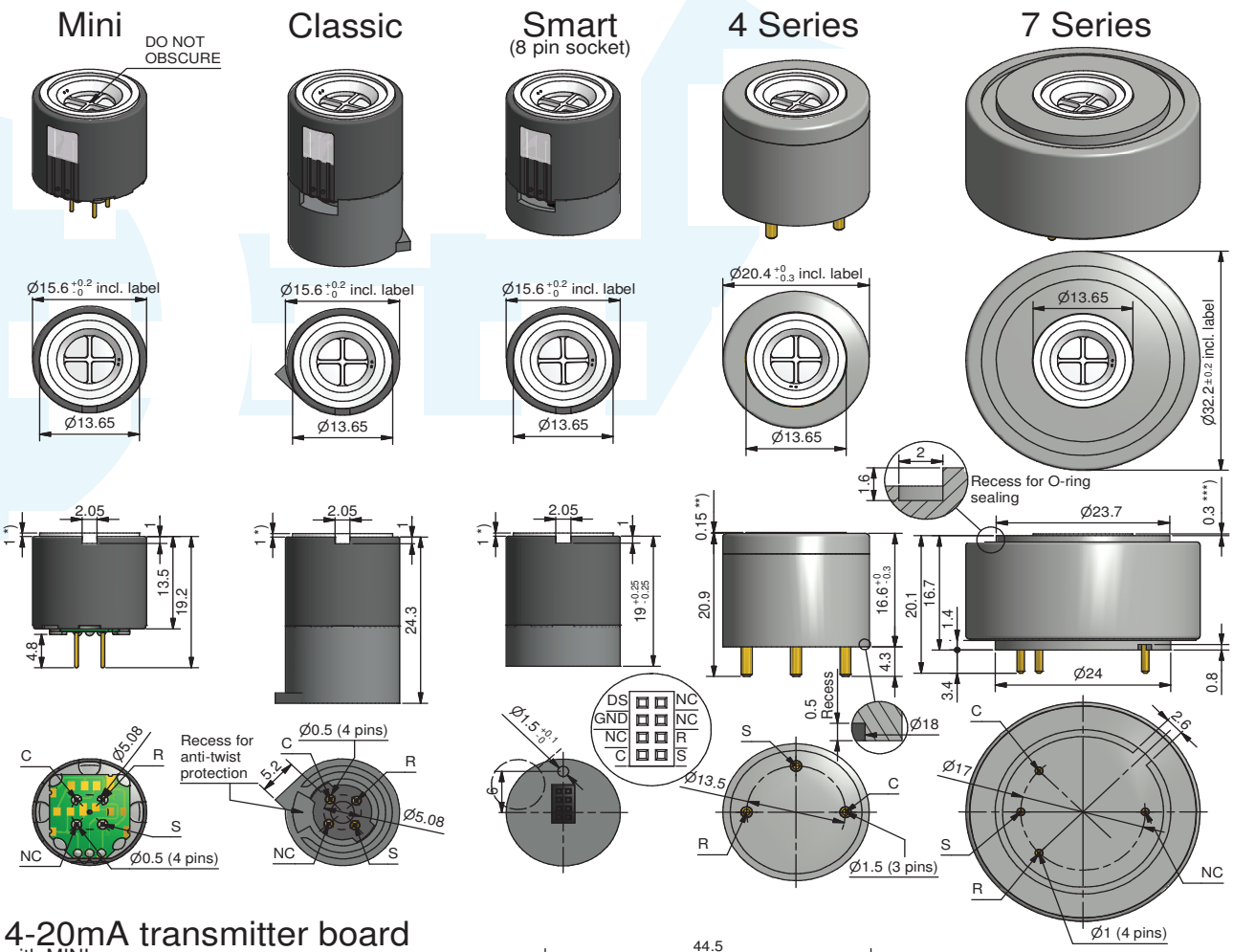
Orders should be placed through Sensoric Gas Sensors in Bonn.

IMPORTANT NOTE:
Connection should be made via PCB sockets only. Soldering to pins will render your warranty void.

All performance data is based on conditions at 20°C, 50% r.h. and ambient pressure using Sensoric recommended circuitry. For information on sensor performance under other conditions contact Sensoric.

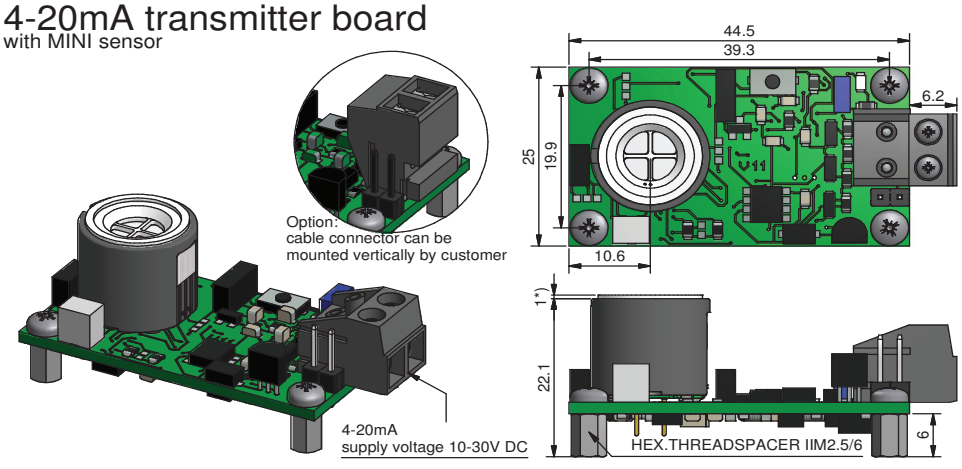
Product Data Sheet

Product Dimensions



4-20mA transmitter board

with MINI sensor



Scale for all products 1:1

All dimensions in mm
All tolerances ±0.15mm unless otherwise stated

S Sensing
C Counter
R Reference
NC not connected

Plugs and customized adaptations available on request

Important Note: Connection should be made via PCB sockets only. Soldering to the pins will render your warranty void.

*) Projection 0.6 - 1.25mm depending on gastype
**) Projection up to 0.4mm for 4 Series
***) Projection up to 0,55mm for 7 Series
Please contact sales_europe@citytech.com for detailed information.

This drawing may be subject to corrections or changes without prior notice

Poisoning

Sensoric cells are designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instruments, and operation.
When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted. Do not glue directly on or near the Sensoric cells as the solvent may cause crazing of the plastic.

SAFETY NOTE
This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.