

## EC-FX SPECIFICATIONS

### Ammonia Gas Sensor

Measurement	
<b>Operating Principle</b>	3-electrode electrochemical
<b>Measurement Range</b>	0-100, 0-200, and 0-250PPM NH <sub>3</sub>
<b>Maximum Overload</b>	500 ppm
<b>Lower Detection Limit</b>	< 10 ppm
<b>Filter</b>	None
<b>Sensitivity</b>	100 ± 40 nA/ppm
<b>Response Time (T90)</b>	< 30 s
<b>Baseline Offset (clean air)</b>	< ±0.2 mA
<b>Zero Shift (+10°C to +40°C)</b>	< 4 ppm
<b>Accuracy</b>	± 5% full scale*
<b>Repeatability</b>	< 10% of full scale
Mechanical	
<b>Housing Material</b>	Polyphenylene Oxide (PPO) Noryl
<b>Weight</b>	4.5 g
<b>Orientation</b>	Vertical only
Environmental	
<b>Typical Applications</b>	Industrial refrigeration, cold storage, and rooms
<b>Operating Temperature Range</b>	Continuous: -4° to 122°F (sensor only) Storage: -58° to 122°F (sensor only)
<b>Operating Pressure Range</b>	Atmospheric ± 10%
<b>Operating Humidity Range</b>	5% to 95% RH non-condensing
Intrinsic Safety Data	
<b>Maximum at 1000ppm</b>	< 0.14 mA
<b>Maximum o/c Voltage</b>	< 1.2 V
<b>Maximum s/c Current</b>	< 100 mA
Lifetime	
<b>Long Term Output Drift</b>	< 5% per 6 months
<b>Expected Operating Life</b>	Cold Storage: 3-4 years in average conditions Engine Room: 2-3 years in average conditions
<b>Storage Life</b>	6 months in sealed container
<b>Standard Warranty</b>	Three years from date of shipment

\* ±5% of full scale range at temperature of calibration. Contact HA for additional details.

#### CAUTION:

EC-FX is designed for operation in a wide range of environments and harsh conditions. However, it is important that exposure to high concentrations of solvent vapors is avoided, both during storage, fitting into instruments, and operation.

EC-FX 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). Failure to carry out such tests on a regular basis may jeopardize the safety of people and property.

#### PLEASE NOTE:

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

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

#### Find out more

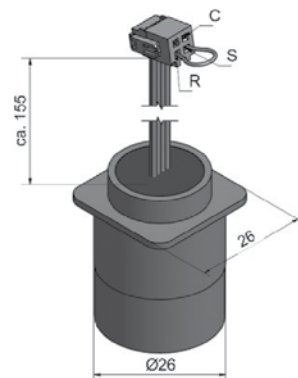
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#### Product Dimensions

All dimension in mm, all tolerances ± 0.15 mm unless otherwise stated.



#### Cross-sensitivity Data

While Honeywell cells are designed to be highly specific to the gas they are intended to measure, they will still respond to some degree to certain gases. The table below is not exclusive and other gases not included in the table may still cause a sensor to react.

Gas	Concentration Used (ppm)	Reading (ppm)
Carbon Dioxide CO <sub>2</sub>	5000	0
Ethylene C <sub>2</sub> H <sub>4</sub>	200	0
Carbon Monoxide CO	50	13
Hydrogen Sulfide H <sub>2</sub> S	10	47
Sulfur Dioxide SO <sub>2</sub>	20	16
Iso-Propanol C <sub>3</sub> H <sub>7</sub> OH	11000	21
Hydrogen H <sub>2</sub>	3000	141
Methane CH <sub>4</sub>	18500	0
Ozone O <sub>3</sub>	0.25	-1
Chlorine Cl <sub>2</sub>	10	-20

The cross-sensitivity values quoted are based on tests conducted on a small number of sensors. They are intended to indicate sensor response to gases other than the target gas. Sensors may behave differently with changes in ambient conditions and may show some variation from the values quoted.