

# e2v

## EC4-20-PH3 Phosphine Electrochemical Sensor

### PERFORMANCE

Range ..... 0 - 20 ppm  
 Maximum overload..... 100 ppm PH3  
 Sensitivity.....800 - 2000 nA/ppm PH3  
 Zero in air at 20 °C..... <±0.5 ppm PH3  
 Resolution..... 0.1 ppm PH3  
 Linearity .....linear across range  
 Response time, t90 ..... <60 s  
 Long-term output drift.....<2% signal/month  
 Warranty ..... 2 years

### OPERATING CONDITIONS

Temperature range .....-20 to +50 °C  
 Operating humidity..... 15 - 90% RH (non-condensing)  
 Pressure range ..... 90 - 110 kPa (nominal)  
 Operating circuit..... see Electrochemical Toxic Sensor Application Note  
 Applied potential .....0 V  
 Storage life..... 6 months in original packaging (0 - 25 °C)

### PHYSICAL CHARACTERISTICS

Label colour .....silver  
 Weight..... 5 g approx.  
 Dimensions ..... see outline

This device is designed to be RoHS compliant.

### CROSS-SENSITIVITY DATA

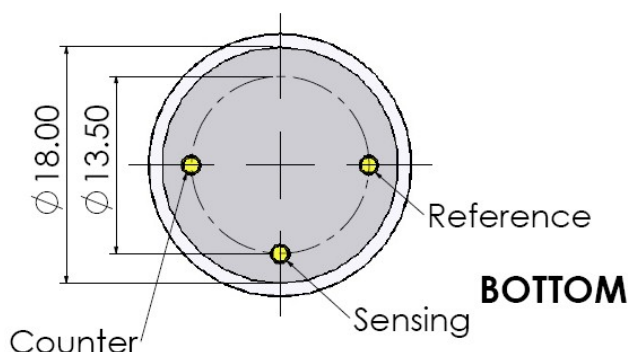
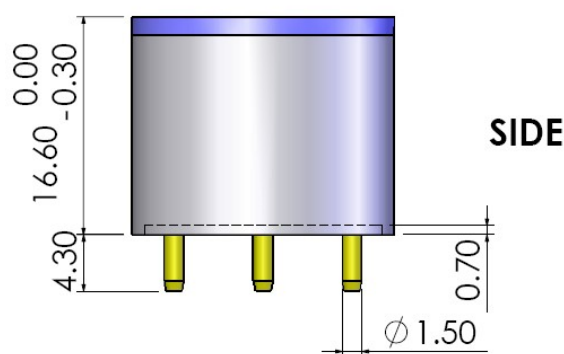
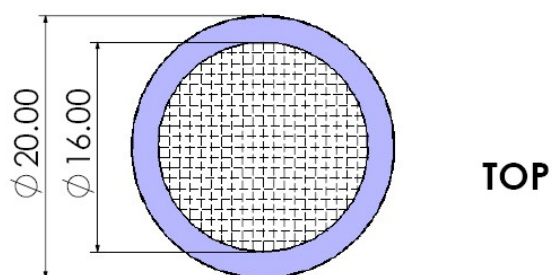
GAS	Concentration (ppm)	Sensor Response (As ppm PH3)
Hydrogen Sulfide	15	0
Sulfur Dioxide	5	<0.9
Carbon Monoxide	1000	0
Ammonia	50	0
Hydrogen	1000	0
Ethene	100	0

### Important Note

Do not solder to the connector pins as this may damage the sensor and thereby invalidate the warranty.

Details on recommended connector pins can be found in the Frequently Asked Questions within the Gas Sensor section of the e2v website.

### OUTLINE



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

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A1A-764705 Version 2, October 2009

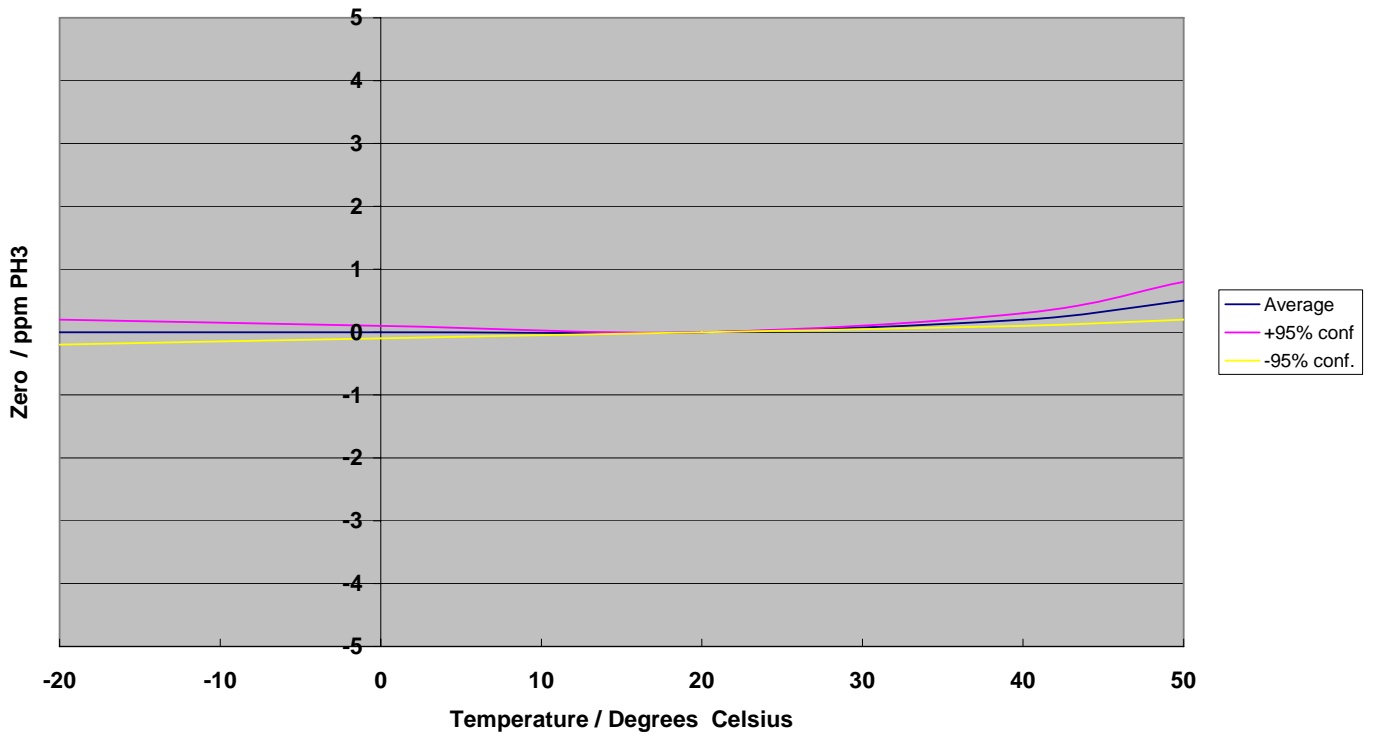
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## TEMPERATURE DEPENDENCE

EC4-20-PH3 Graph of Zero vs Temperature



EC4-20-PH3 Graph of Sensitivity vs Temperature

