

## Midas<sup>®</sup> SENSOR CARTRIDGE SPECIFICATIONS

### Flammable Group (n-Butane) MIDAS-E-LEB



<b>Gas Measured</b>	n-Butane (n-C <sub>4</sub> H <sub>10</sub> )
<b>Cartridge Part Number</b>	MIDAS-E-LEB 2 year extended warranty
<b>Sensor Technology</b>	Pellistor (catalytic bead)
<b>Measuring Range</b>	0 – 100% LEL <sup>1</sup>
<b>Minimum Alarm 1 Set Point</b>	9% LEL
<b>Repeatability</b>	< ± 10% of measured value
<b>Linearity</b>	< ± 10% of measured value
<b>Response Time t62.5</b>	< 5 seconds
<b>Sensor Cartridge Life Expectancy</b>	≥ 60 months under typical application conditions
<b>Operating Temperature</b>	0°C to +40°C (32°F to 104°F)
<b>Effect of Temperature</b>	
Zero Sensitivity	< ± 1% fsd < ± 3% fsd
<b>Operating Humidity(continuous) Effect of Humidity</b>	20 – 90% RH
Zero Sensitivity	< ± 1% fsd < ± 2% fsd
<b>Operating Pressure</b>	90 - 110kPa
<b>Effect of Position</b>	No effect in typical application
<b>Long Term Drift</b>	
Zero Sensitivity	< ± 3% fsd / year < ± 3% fsd / year
<b>Calibration Gas</b>	n-Butane (n-C <sub>4</sub> H <sub>10</sub> )
<b>Challenge Gas (Bump Test)</b>	n-Butane (n-C <sub>4</sub> H <sub>10</sub> )
<b>Warm Up Time</b>	< 10 minutes
<b>Storage Temperature</b>	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on ideal test environment; observed performance may vary based on the actual monitoring system and the sampling conditions employed

It is recommended that the calibration and bump test gas should be the same as measuring gas

### Cross Sensitivities

Each Midas<sup>®</sup> sensor is potentially cross sensitive to other gases and this may cause a gas reading when exposed to other gases than those originally designated. The table below presents typical readings that will be observed when a new sensor cartridge is exposed to the cross sensitive gas (or a mixture of gases containing the cross sensitive species).

Gas / Vapor	Chemical Formula	Concentration applied (ppm)	Reading (% LEL)
Ammonia	NH <sub>3</sub>	10	0
Carbon Dioxide	CO <sub>2</sub>	10	0
Carbon Monoxide	CO	10	0
Chlorine	Cl <sub>2</sub>	10	0
Ethylene	C <sub>2</sub> H <sub>4</sub>	0.675%v	43
Hydrogen	H <sub>2</sub>	1%v	67
Hydrogen Chloride	HCl	10	0
Hydrogen Sulphide	H <sub>2</sub> S	10	0
Iso Propanol	C <sub>3</sub> H <sub>7</sub> OH	0.5%v	31
Methane	CH <sub>4</sub>	1.25%v	59
Nitric Oxide	NO	10	0
Nitrogen Dioxide	NO <sub>2</sub>	10	0
Sulphur Dioxide	SO <sub>2</sub>	10	0

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Toll-free: 800.538.0363

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