



## Midas® Sensor Cartridge Specifications

### Flammable Group (n-Butane)

### MIDAS-E-LEB

Gas Measured	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>	n-C <sub>4</sub> H <sub>10</sub> 0 – 100%LEL
<b>Minimum Alarm 1 Set Point</b>	10%LEL
<b>Lower Detection Limit</b>	4.5%LEL
<b>Linearity</b>	< ± 10% of measured value
<b>Repeatability</b>	< ± 10% of measured value
<b>Resolution</b>	1%LEL
<b>Response Time t<sub>62.5</sub></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</b>	10 to 90% RH
<b>Effect of Humidity</b>	
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>Bump Test Gas</b>	n-Butane(n-C <sub>4</sub> H <sub>10</sub> )
<b>Warm Up Time</b>	< 30 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.

#### Find out more

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#### Cross Sensitivities

Each Midas® 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 Measured	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 Chloride	HCl	10	0
Hydrogen Sulfide	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
Sulfur Dioxide	SO <sub>2</sub>	10	0
Hydrogen	H <sub>2</sub>	1%v	67

Interference differs from cartridge to cartridge and over cell life. It is not recommended to calibrate with cross sensitivity factors. The target gas should be used for calibration.