MIDAS S2
BUTANE (C_4H_{10})

Sensor Cartridge Specifications

Selectable gases	Butane (C_4H_{10})
Cartridge Part Number	MIDAS S2-E-LEB 2-year extended warranty
Sensor Technology	Catalytic bead sensor
Measuring Range	C_4H_{10} 0 - 100%LEL
Default Alarm 1	C_4H_{10} 10%LEL
Default Alarm 2	C_4H_{10} 20%LEL
LDL, LAL	C_4H_{10} 3%LEL
Resolution	C_4H_{10} 0.5%LEL
Accuracy	≤ ± 5% of measured value
Response Time $t_{62\cdot5}$	Typical 16 seconds
Sensor Cartridge Life Expectancy (Expiration Period)	60 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature Sensitivity	≤ ± 10% of measured value at 20°C
Operating Humidity	0 to 99% non-condensing
Operating Pressure	90 – 110kPa
Calibration Gas	C_4H_{10} 50%LEL
Warm Up Time	< 30 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on the test data with C_4H_{10} gas under normal Lab test conditions (20-25 C, 0 - 60%RH, normal atmosphere pressure); observed performance may vary based on the actual monitoring system and the sampling conditions employed.

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CROSS SENSITIVITIES

Each Midas S2 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 C_4H_{10})
Ethylene	C_2H_4	13500	100 (Over Range)
Iso Propanol	C_3H_7OH	10000	95
Methane	CH_4	25000	100 (Over Range)
Propane	C_3H_8	10000	62
Acetylene	C_2H_2	12000	80
Ammonia	NH_3	50	0
Carbon Dioxide	CO_2	10000	0
Carbon Monoxide	CO	100	0
Chlorine	Cl_2	10	0
Hydrogen Chloride	HCl	10	0
Hydrogen Sulfide	H_2S	20	0
Nitric Oxide	NO	50	0
Nitrogen Dioxide	NO_2	10	0
Sulfur Dioxide	SO_2	10	0
Silane	SiH_4	10	0
Phosphine	PH_3	0.6	0
Ozone	O_3	0.2	0
Hydrogen Fluoride	HF	6	0
Ethylene Oxide	C_2H_4O	20	0
Hydrogen Cyanide	HCN	10	0

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.

For more information
automation.honeywell.com

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Midas S2-E-LEB | Rev 1 | 8/24

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