

# Platinum Series A2L Refrigerant Gas Sensors

For detection of A2L gases in the % volume range



Dynamment infrared gas sensors operate by using the NDIR principle to monitor the presence of A2L refrigerant gases **R32**, **R454B**, and **R454C**. The sensor contains a long life tungsten filament infrared light source, an optical cavity into which gas diffuses, a dual temperature compensated pyroelectric infrared detector, an integral semiconductor temperature sensor and electronics to process the signals from the pyroelectric detector.

## FEATURES

- Industrial Ex d IIC Certified, Mining M1 Certified available for all variants
- Also available as non-Ex'd' certified format
- All sensors carry a 5-year warranty
- Measures R32, R454B and R454C in the LFL range with a resolution of 0.05%
- Choice of output format – digital output (floating point and binary), direct pellistor replacement or industry standard 0.4 to 2 volts
- Manual calibration option can be performed without digital commands
- User configurable using USB powered Premier Configuration Unit
- Output can be scaled in % volume or % LEL
- Internal Flash memory allowing sensor firmware updates via configuration unit
- Enhanced EMC protection

## Dynamment Limited

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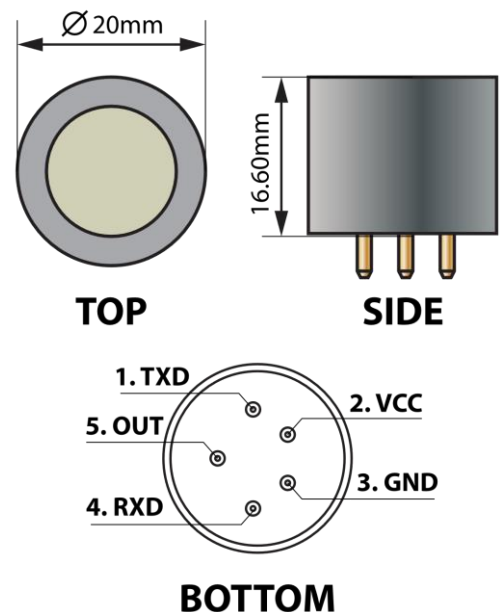
### SPECIFICATION @ 20°C (68°F) ambient temperature

<b>Operating Voltage Range:</b>	3.0 – 5.0 VDC
<b>Measuring ranges:</b>	See gases and ranges table
<b>Resolution:</b>	0.05%
<b>Linearity:</b>	± 10% of the applied gas, or +/-0.05% volume, whichever is greater.
<b>Accuracy:</b>	Accuracy limits are maintained within ±5% of the calibration pressure
<b>Pressure</b>	± 5% of the calibration pressure to maintain the accuracy limits
<b>Warm up time:</b>	To final zero ± 2% full-scale: approximately 1 minute, some sensors may take longer.
<b>Response Time T50:</b>	<10s
<b>Response Time T90:</b>	<30s
<b>Zero Repeatability:</b>	±0.05% volume
<b>Span Repeatability:</b>	± 2% full scale @ 20°C (68°F), 1 bar pressure, at calibration point
<b>Long term zero drift:</b>	± 0.05% volume per month
<b>Operating temperature range:</b>	-20°C to +50°C (-4°F to 122°F) -40°C to +75°C (-40°F to 167°F) for XTR
<b>Temperature performance -40°C to +75°C (-40°F to 167°F):</b>	± 0.1% volume or ± 10% of reading up to 50% of full scale, ± 15% of reading from 50% to 100% of full scale, or 2% of full scale whichever is greater
<b>Storage temperature range:</b>	-20°C to +50°C (-4°F to 122°F) -40°C to +75°C (-40°F to 167°F) for XTR version
<b>Humidity range:</b>	0 to 95% RH non-condensing.
<b>Digital signal format:</b>	8 data bits, 1 stop bit, no parity. 2.8V logic level
<b>Standard baud rates:</b>	38,400, 19,200, 9600, 4800
<b>Warranty:</b>	5 years
<b>Weight :</b>	15 grams

### A2L Refrigerant Gases and Ranges

Gas Type	Range	Resolution
R32	0 – 3% volume	0.05%
R32	0 – 15% volume	0.05%
R454B	0 – 12% volume	0.05%
R454C	0 – 15% volume	0.05%

### MECHANICAL DETAIL



### COMPLIANCE AND REGULATIONS



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