

Platinum Series R32 Refrigerant Gas Sensor

For detection of Difluoromethane gas in the % volume range



Dynamment infrared gas sensors operate by using the NDIR principle to monitor the presence of the target gas. 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 from 0 to 15% volume 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

Hermitage Lane Industrial Estate, Kings Mill Way, Mansfield, Nottinghamshire, NG18 5ER, UK.

Tel: 44 (0)1623 663636

Email: sales@dynamment.com • www.dynamment.com • www.processsensing.com

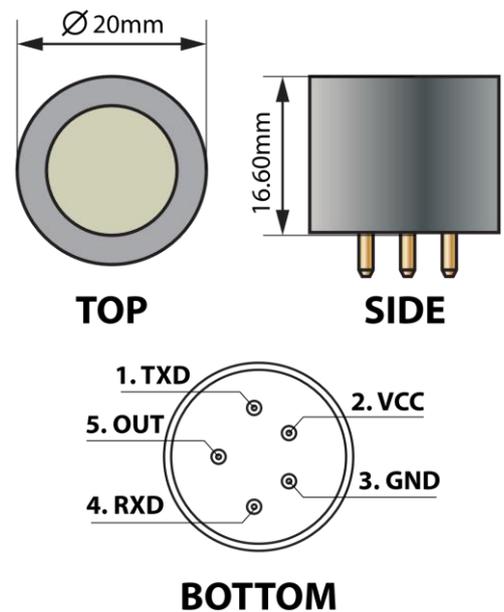
SPECIFICATION @ 20°C (68°F) ambient temperature

Operating Voltage Range:	3.0 – 5.0 VDC
R32 measuring range:	0-15%
Resolution:	0.05%
Linearity:	± 10% of the applied gas, or +/-0.05% volume, whichever is greater.
Accuracy:	Accuracy limits are maintained within ±5% of the calibration pressure
Pressure	± 5% of the calibration pressure to maintain the accuracy limits
Warm up time:	To final zero ± 2% full-scale: approximately 1 minute, some sensors may take longer.
Response Time T50:	<10s
Response Time T90:	<30s
Zero Repeatability:	±0.05% volume R32
Span Repeatability:	± 2% full scale @ 20°C (68°F), 1 bar pressure, at calibration point
Long term zero drift:	± 0.05% volume R32 per month
Operating temperature range:	-20°C to +50°C (-4°F to 122°F) -40°C to +75°C (-40°F to 167°F) for XTR
Temperature performance -40°C to +75°C(-40°F to 167°F):	± 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
Storage temperature range:	-20°C to +50°C (-4°F to 122°F) -40°C to +75°C (-40°F to 167°F) for XTR version
Humidity range:	0 to 95% RH non-condensing.
Digital signal format:	8 data bits, 1 stop bit, no parity. 2.8V logic level
Standard baud rates:	38,400, 19,200, 9600, 4800
Warranty:	5 years
Weight :	15 grams

Hydrocarbon Ranges

Gas Type	Range	Resolution
R32	0 – 15% volume	0.05%

MECHANICAL DETAIL



COMPLIANCE AND REGULATIONS



Dynamment Limited

Hermitage Lane Industrial Estate, Kings Mill Way, Mansfield, Nottinghamshire, NG18 5ER, UK.

Tel: 44 (0)1623 663636

Email: sales@dynamment.com • www.dynamment.com • www.processsensing.com