



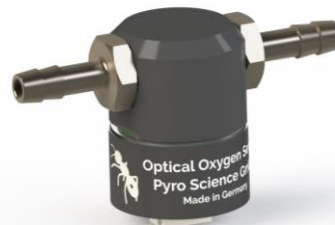
TECHNOLOGY DESCRIPTION

The oxygen sensor is a factory-calibrated, robust, fast-responding, durable and virtually maintenance-free oxygen sensor for demanding gas measurement applications. Although the form factor is similar to conventional electro-galvanic oxygen sensors (oxygen fuel cells), the sensor operates on a completely different, optical principle. The optical measurement is based on a proprietary luminescent sensor dye that reacts to the oxygen partial pressure. This principle is very robust and shows practically no interference with other gases. In contrast to electrogalvanic oxygen sensors with their very limited storage and operating life, the new sensor does not degrade over time. The optics and electronics are hermetically separated from the measured gas.



INNOVATIVE ASPECTS

- High-accuracy measurement and low drift
- Factory calibrated
- Long life
- Fast response (t63<2s)
- Digital output of oxygen partial pressure
- Temperature compensation
- Low power consumption
- Lead free, ROHS compliant
- Reliability (e.g. tested and integrated by NASA in Mars Rover 2020)



TECHNOLOGY READINESS (in space application)

TRL 9 (2024)

COUNTRY OF ORIGIN

Germany

LATEST UPDATE

06/2024

TAGS

#sensor

#oxygen

#optical

#gas monitoring

#portable

#long life

APPLICATION AREAS

Aviation

Energy

Chemical
Engineering &
Biotechnology

Food &
Agriculture

Health

Maritime &
Aquatic

Safety & security

SPACE
FOR BUSINESS
BUSINESS
FOR SPACE

TECH CARD

