

== ION FLOW OXYGEN SENSOR ==

[Home](#) > [Automotive sensors](#) > Ion flow oxygen sensor

Ion flow oxygen sensor

Because the carrier of current in the zirconia electrolyte is oxygen ions, when the voltage is applied to the zirconia electrolytic cell, oxygen is drawn to the anode through the zirconia disk. If a perforated cover is added to the cathode of the electrolytic cell, the rate of oxygen flow to the cathode will be limited. Due to the limitation of this rate, as the applied voltage gradually increases, the current in the electrolytic cell will reach saturation. This saturation current is called the limit current, which is proportional to the oxygen concentration in the surrounding environment.

Category: [Automotive sensors](#), [Oxygen sensor](#), [Featured Products](#)



DESCRIPTION

Product features

Warm up time :Min. 30 s

Maximum permissible operating temperature :350 °C (*); *Depending on the cable and filter assembly (see paragraph: specification, Cable assembly)

Lifetime (MTTF):~ 20.000 hours (*);* Depending on measuring medium. Stated lifetime refers to a heated, operated sensor of type APRY–XX-250-XXX and APRY–XXX-960-XXX. A failure or reaching the lifetime typically means a slight deviation from the dispatch specifications.

Vibration resistance—Sensors based on the TO8 socket as well as those built with a TO39 socket (PERY-BX-XXX-XXX, PERY-EX-XXX-XXX, PERY-AX-XXX-XXX) meet the European Norm EN60068-2-6 (Sinusoidal vibration tests).

Item	Date
Pump voltage (Drive voltage)/V	0.7-0.9
Heating voltage/V	4.0-4.2
Power consumption/W	1.8-2.4
resistance (25°C) /Ω	2.7±0.3
Measuring range/vol. %	0.1 – 25.0
Measuring accuracy	±0.25%O ₂