



Electrochemical Sensors Application Note 4 Intrinsic Safety Considerations for EC410 Oxygen Sensors

The maximum outputs from the sensor (considered as being a source of generated energy) are as follows:

Maximum voltage (between sensing and counter electrodes):

in 0% oxygen	1.25	V
in 20.9% oxygen	0	V
Maximum current (in 30% oxygen)	0.72	mA
Maximum power (in 30% oxygen)	1.08	mW

These outputs are within the maximum figures (1.5 V, 100 mA and 25 mW respectively) for **simple apparatus** as stated in EN 60079-14:2003 Section 3.4.5 c.

The sensors can therefore be considered for their compatibility with the intrinsic safety aspects of the overall circuitry in which they are used.

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