

## SENSORS FOR OXYGEN IN THE AIR MEASUREMENTS COG-3At, COG-3Atz

**COG-3At** is used for continuous measurements of oxygen concentration in the air in % and temperature. It co-operates with specific meters designed for co-operation with this sensor and continuous work (CO-421A)

**COG-3Atz** is used for est measurements of oxygen concentration in the air in % and temperature, equipped with multi pin connector. It co-operates with specific portable meters designed for co-operation with this sensor (CO-411A)

### Characteristic features:

- Has a built in KE-LF25 oxygen sensor made by company Maxell from Japan and a Pt-1000 temperature sensor.
- The sensor is maintenance free, doesn't require membrane nor electrolyte replacing.
- Lifetime expectancy of the oxygen sensor – 5 years in standard conditions.
- May be used in atmosphere with presence of other gases, details given in the table below.
- Cable length to be agreed when placing the order.



### SENSOR'S PARAMETERS

Parameter		Model KS-25LF
Measuring range		0 ÷ 30% O <sub>2</sub>
Accuracy after calibration		± 1% of full scale
Work conditions	Atmospheric pressure	811 hPa ÷ 1216 hPa
	Temperature	5 ÷ 40°C
	Relative humidity	10 ÷ 80% RH without condensation
Response time ( T90%)		about 15 s
External size of the housing		Φ = 35 mm, L = 75 mm
Storing conditions	Temperature	-20°C ÷ 60°C
	Relative humidity	0 ÷ 100% RH
	Pressure	507 ÷ 1520 hPa

In the environment temperature down to -10°C sensor stops working but is not freezing, below -20°C it will be damaged.

The sensor may be directly mounted to the meter's housing, or hanged in the chosen by the user place and connected with the meter with cable of chosen length.

### INFLUENCE OF DIFFERENT GASES ON THE SENSOR (ACCORDING TO MANUFACTURER)

Type of the gas	Concentration	Influence on O <sub>2</sub> measurement
Carbon dioxide	100,00%	No influence
Hydrogen	100 ppm	No influence
Hydrogen sulfide	50,3 ppm	No influence
Nitric oxide	467 ppm	No influence
Nitrogen dioxide	517 ppm	+0,1 O <sub>2</sub>
Sulphur dioxide	46,6 ppm	No influence
Ammonia	1,00%	No influence

**Temperature sensor:** Pt-1000B platinum resistor

**Accuracy in the range 0 – 40°C:** ±0.5°C

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