

## OXYGEN CONTROLLER CO-421A

**CO-421A** is a stationary device used for continuous measurements of oxygen concentration in the air in % and the temperature.

The controller is available in versions:

1. Equipped with two relays to control valves and signalisation system.
2. Equipped with 0 ÷ 20 mA or 4 ÷ 20 mA current loop.



### Characteristic features:

- Meter co-operates with a COG-3At sensor with built in KE-LF25 oxygen sensor made by company Maxell from Japan and a Pt-1000 temperature sensor.
- Maintenance free sensor, doesn't require membrane nor electrolyte replacing.
- Lifetime expectancy of the oxygen sensor – 5 years in standard conditions.
- Sensor, after damage or use up, may be replaced by the user.
- May be used in atmosphere with presence of other gases, details in the table.
- Enables 1-point calibration in the air. Calibration is done without the need of disconnecting the outputs.
- In the model with relays there are 3 options of programming the alarms (relays): 2 upper limits, 2 lower limits and 1 upper and 1 lower limit.
- Equipped with backlit LCD display.
- Powered by 12 V adapter.
- With special hanger for mounting on the wall.
- 24 months of warranty for the meter, 12 for the sensor
- High accuracy at affordable price.

The meter may collect up to 8000 data sets including measured result, measured temperature, time and date. The data may be collected with chosen time interval. The available values of the interval are 1, 2, 5, 10, 15, 30 and 60 minutes.

If the memory capacity is used up the oldest result is deleted and replaced with a new one. The collected or actual results may be transferred to a PC with use of the USB connector. The delivered in set software enables the transmission.

**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

**TECHNICAL DATA OF THE METER**

Power supply	12 V / 100 mA power adapter
Accuracy (±1 digit)	±0.1%*
Power consumption	700 mW
Dimensions (mm)	L=149 W=82 H=22
Weight	220g
Relays' parameters	2A/250VAC/30VDC
Memory	8000 data sets collected with chosen time interval
Isolation class	according to PN-83/T-06500
Radio-electric interference	N level

\* Final accuracy is a sum of meter and sensor errors.

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