

Fixed explosion-proof oxygen gas analyzer ГТМ-5101В3-А



Designed for measurement of oxygen volume fraction in process gas mixtures (nitrogen or air).

Application

Process and working area air monitoring at nuclear power stations.



Principle of operation - thermomagnetic.
Sampling - forced (by means of exterior flow rate pump or gauge pressure in sampling point).
Operation mode - continuous.

Basic technical characteristics

Characteristics	Values	Remarks
O ₂ measuring range, vol. %: - oxygen in nitrogen - oxygen in air	0-1; 0-2; 0-3; 0-5; 0-10; 0-50 0-21	intrinsic fiducial error %, depending on modification ±4 or ±2,5
Readings setting, seconds	180	
4 alarm thresholds within measuring range, %	5 ± 90	set as agreed with the customer (default settings are 20, 40, 60, 80% of measuring range)
Output parameters: - unified output signal, mA - "dry" relay contacts (normally open)	0-5 or 4-20 one group on each channel	according to the order 6-34 V; 1 A; 12-220 V; 0,1-0,5 A
Parameters of measured medium: - temperature °C - humidity, g/m ³ , at most - dust content, g/m ³ , at most - volume flow rate, l/min	+5 / +50 6 0,001 0,7 ± 0,2	
Protection degree according to ГОСТ 14254: - measuring transducer (MT) - remote primary measuring transducer (PMT)	IP 54 IP 65	
Ambient temperature, °C	+5 / +50	
Overall dimensions, mm: - measuring transducer - remote primary measuring transducer	360x300x140 330x200x180	weight, kg 8 14
Explosion protection marking	1ExdIICT6	according to ГОСТ 30852.0-2002



License for production of gas analysis equipment and auxiliary equipment for nuclear power stations ЦО-12-101-8079 of 16.07.2014.
License for design of gas analysis equipment and auxiliary equipment for nuclear power stations ЦО-11-101-8758 of 04.06.2015.
Gas analyzers belong to elements of normal operation controlling systems of (NOCS), class 3H according to ПН АЭ Г-01-011-97.
All gas analyzers ГТМ-5101В3-А and auxiliary equipment for them pass acceptance of the Federal Service for Ecological, Technological and Nuclear Supervision (Rostekhnadzor).

In case parameters of gas mixture at gas analyzer inlet do not coincide with the ones given above, sample preparation unit БП-1-А ИБЯЛ.418311.048 or separate auxiliary devices (on customer's request) can be used:

- > Cooler ХК-3-А (ИБЯЛ.065142.005);
- > Frigistor -А (ИБЯЛ.418316.016);
- > Safety valve А ИБЯЛ.301122.044;
- > Fine adjustment valve ВТР (ИБЯЛ.306577.002-04).