

Fixed explosion-proof hydrogen gas analyzer ГТБ-1101В3-А



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

Application

Process monitoring at nuclear power stations.



Gas analyzer type - fixed.
Sampling - diffusion/forced.
Principle of operation - thermoconductometric.

Basic technical characteristics

Characteristics	Values	Remarks
Measuring range, vol. %: - H ₂ in nitrogen - H ₂ in air	0-1; 0-2; 0-3; 0-5; 0-10; 0-20; 60-100 0-1; 0-2; 0-3	intrinsic fiducial error, %: ± 4 ± 4
2 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	0-5 or 4-20 one group	according to the order for each threshold
Ambient temperature, °C	+5 / +50	
Parameters of measured medium: - temperature, °C - pressure, kPa - moisture, g/m ³ , at most - dust, g/m ³ , at most - volume flow rate, l/min	+5 / +50 84-106,7 6 0,001 0,7 ± 0,2	
Weight, kg, at most: - detector measuring unit: - one-channel - two-channel - three-channel - four-channel	10 5 6 7 8	overall dimensions, mm: 260x200x195 285x215x160 285x300x160 285x400x160 285x480x160
Explosion protection marking	1ExdIICT6	according to ГОСТ 30852.0-2002
Protection degree according to ГОСТ 14254-96: - measuring transducer (MT) - remote primary measuring transducer (PMT)	IP 54 IP 65	



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 ГТБ-1101В3-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 or separate auxiliary devices (on customer's request) can be used:

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