

Fixed hydrogen gas analyzer

ГТВ-1101М-А



Designed for continuous automatic measurement of hydrogen volume fraction in nitrogen (air) or nitrogen in helium.

Application

Process monitoring at nuclear power stations.



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

Basic technical characteristics

Characteristics	Values	Remarks
Measuring ranges, vol. %: - for H ₂	0-1; 0-2; 0-3; 0-5; 0-20 0-10; 0-20; 0-30; 90-100 0-1; 0-2; 0-3 0-60	analyzable medium: hydrogen-nitrogen hydrogen-air nitrogen-helium
Limit of permissible intrinsic fiducial error, %	± 4	
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 - digital signal - "dry" relay contacts	0-5 or 4-20 RS 232 one group	switchable for each threshold (0,1 - 1) A, depending on voltage and load type
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	
Ambient temperature, °C	+5 / +50	
Overall dimensions, mm	300x370x140	weight, 10 kg
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 ГТВ-1101М-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-3-А (ИБЯЛ.065142.005);
- > Frigistor -А (ИБЯЛ.418316.016);
- > Safety valve ИБЯЛ.301122.044;
- > Fine adjustment valve ВТР (ИБЯЛ.306577.002-04).