

# Fixed flammable gas alarm CTM-30M



Designed for continuous automatic monitoring of pre-explosive concentrations of flammable gases, vapors and their mixtures in the air of working area and alarm generation when the preset threshold values are exceeded

## Application

In process of oil and gas production, at oil and gas pipelines, gas facilities, vehicle fleet, at filling stations, industrial plants (paint areas, sewage, boiler houses).



Type of gas alarms - fixed.  
Sampling - diffusion or forced.  
Principle of operation - thermochemical.

## Basic technical characteristics

Characteristics	Values	Remarks
Measured gases	up to 143 flammable substances forming gas- and air-vapor mixtures including complex hydrocarbons	
Measuring range: % LEL	0-50	
Indication range, % LEL	0-70	
Standard thresholds setting, % LEL	threshold 1 - 7 / threshold 2 - 11 threshold 1 - 10 / threshold 2 - 15	verification with methane verification with hexane
Time of alarm generation, s, not more	10 20	on methane on hexane
Output unified signal, mA - digital	4 - 20 RS 485	
Generation of dry relay contacts when alarm generation	- warning - emergency - failure	220V 1A
Length of communication line БСиП with sensor unit, m, not more:	1000	with R core not more 10
Supply voltage, V	220 or 24	ИБЯЛ.413216.050-10...25 ИБЯЛ.413216.050-02,-04,-07,-26,...-41,-50,-51,-53
Protection degree	IP 20 IP 54	БСП БД, ВД
Overall dimensions, mm (length x width x height):		weight, kg, not more:
- alarm and power supply unit БСП	115x55x110	0,5
- sensor unit БД	60x210x170	0,8
- remote sensor ВД	110x60x70	0,8



All versions of CTM-30M correspond to the requirements of Russian Maritime Register of Shipping (RMRS) and Russian River Register (RRR). Gas alarms have a device for monitoring of generation fault during break or short circuit of sensing element of TCS (thermochemical sensor).

## Explosion protection marking

> «1ExdIICT4» - ВД and БД of gas alarms CTM-30M-10 of all versions;  
> «1ExibIIBT6 X» - БД of gas alarms CTM-30M-02ДЦВ, - 04ПЦВ, -51ДБВ, -53ПБВ;  
> «1ExibdIIBT6 X» - БД of gas alarms CTM-30M-00ДЦ, -50ДБ;  
> «1ExibdIIBT6» - ВД of gas alarms CTM-30M-02ДЦВ, - 04ПЦВ, -51ДБВ, -53ПБВ;

> «1ExibIIBT3 X» - БД of gas alarms CTM-30M-07ДЦВ;  
> «1ExibdIIBT3» - ВД of gas alarms CTM-30M-07ДЦВ;  
> «[Exib]IIB» - БСП of gas alarms CTM-30M-00ДЦ, -02ДЦВ, -04ПЦВ, -07ДЦВ, -50ДБ, -51ДБВ, -53ПБВ.

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Letter designation of of gas alarms versions:

Д – diffusion sampling;  
П – forced sampling;  
Ц – availability of digital indication on БСП and БД;  
Б – absence of digital alarm;

T – tropical version;

Г – calibration component is hexane;

М – compliance with the requirements of RMRS;

В – availability of remote sensor connected by cable with БД.

## Versions of gas alarms CTM-30M

Designation	Name	Calibration component	Quantity of cores of communication cable of БСП with БД (ВД)	Availability of digital indication on units	Ambient temperature range, °C		
					БСП	БД	ВД
ИБЯЛ.413216.050	СТМ-30М-00ДЦ	methane	2	БСП and БД	+1/+50	-40/+50	-
-02	СТМ-30М-02ДЦВ	methane	2	БСП and БД	+1/+50	-40/+50	-40/+50
-04	СТМ-30М-04ПЦВ	methane	2	БСП and БД	+1/+50	+1/+50	+1/+50
-07	СТМ-30М-07ДЦВ	methane	2	БСП and БД	+1/+50	-20/+50	-20/+180
-10	СТМ-30М-10ДБ	methane	4	no	+1/+50	-	-60/+50
-11	СТМ-30М-10ДЦ	methane	4	БСП	+1/+50	-	-60/+50
-12	СТМ-30М-10ДБГ	hexane	4	no	+1/+50	-	-60/+50
-13	СТМ-30М-10ДЦГ	hexane	4	БСП	+1/+50	-	-60/+50
-14	СТМ-30М-10ПБ	methane	4	no	+1/+50	+1/+50	-
-15	СТМ-30М-10ПЦ	methane	4	БСП	+1/+50	+1/+50	-
-16	СТМ-30М-10ПБГ	hexane	4	no	+1/+50	+1/+50	-
-17	СТМ-30М-10ПЦГ	hexane	4	БСП	+1/+50	+1/+50	-
-18	СТМ-30М-10ТДЦ	methane	4	БСП	+1/+50	-	-60/+50
-19	СТМ-30М-10ТДЦГ	hexane	4	БСП	+1/+50	-	-60/+50
-20	СТМ-30М-10ТПЦ	methane	4	БСП	+1/+50	+1/+50	-
-21	СТМ-30М-10ТПЦГ	hexane	4	БСП	+1/+50	+1/+50	-
-22	СТМ-30М-10МДЦ	methane	4	БСП	+1/+50	-	-60/+50
-23	СТМ-30М-10МПЦ	methane	4	БСП	+1/+50	+1/+50	-
-24	СТМ-30М-10НДЦ	methane	4	БСП	-40/+50	-	-60/+50
-25	СТМ-30М-10НДЦГ	hexane	4	БСП	-40/+50	-	-60/+50
-50	СТМ-30М-50ДБ	methane	3	no	+1/+50	-60/+50	-
-51	СТМ-30М-51ДБВ	methane	3	no	+1/+50	-60/+50	-60/+50
-53	СТМ-30М-53ПБВ	methane	3	no	+1/+50	+1/+50	+1/+50



### Standard equipment

- > Gas alarm CTM-30M;
- > SPTA set;
- > Set of mounting elements;
- > Documentation.