



Addressable Natural Gas Detector

Type :71CNG

TECHNICAL SPECIFICATION



Before use, read
the instructions carefully!

GENERAL DESCRIPTION

The 71CNG detector (fig.1) is applicable for detection of natural gas (methane) in the protected area. The status of the detector is indicated with LEDs and sounder.

The 71CNG detector has a signal (communication) and external power interface lines.

The signal loop (communication) interface line is compatible with the IFS7002 fire control panel through the UniTalk private protocol. The signal loop (communication) interface power supplies the communication, micro-controller, detection schematics of the device. In order to be fully functional, the 71CNG device requires additional external power supply in the range (18 – 30) Vdc, which supplies the sounder and Led indication and heating of the sensor.

The signal loop (communication) interface is protected with a short-circuit isolator.

Both power supplies are galvanic-separated and must not be with common ground. The common ground will not damage the standalone operation of the 71CNG, but will affect the communication between the detector and the IFS7002 control panel.

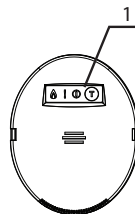


Fig.1

TECHNICAL DATA

Maximum number of 71CNG detectors in the IFS7002 signal loop: 125 pcs.

Supply voltage :

- signal loop (15-30) V DC
- external power supply (18-30) V DC

Current consumption in Duty mode:

- signal loop < 350µA
- external power supply 55 mA

Current consumption in Alarm mode :

- signal loop (2±1)mA
- external power supply 75 mA
- 100dB@1m
- from minus 5°C to 40°C

Sound level

Temperature:

Degree of protection

Relative humidity resistance (no condensation)

Dimensions

Weight

Construction:

≤ 95%
(134x36x112)mm
0.115kg.
ABS

CONTROL AND INDICATIONS

The 71CNG detector's functions are indicated through the following LEDs (fig1 pos.1):

INDICATES	FUNCTIONS
	green - indicates working power supply status of the detector - If the green LED is continuous On - there is properly working power supply
	yellow - indicates fault and service status. - If the yellow LED is blinking - the gas sensor is in heating (warm-up) procedure for 120 seconds - If the yellow LED is continuous On - there is fault in the 71CNG detector
	red - indicates alarm - If the red LED is continuous On - the methane level is over the calibrated trigger level in the device
and	red and yellow - indicates duty and verification mode - If both LEDs are continuous On - a service command is required in the IFS7002 control panel (Menu setup>Initialization>Check) - If both LEDs are blinking simultaneously in a period of 16 sec. - there is fault in the 71CNG detector

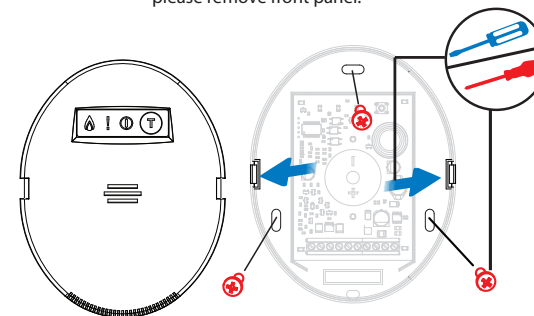


ATTENTION !!! OPERATION TO BE DONE IN CASE OF ALARM:

- Put out any flames.
- Close the gas tap or the cylinder.
- Do not turn any electrical consumers on or off.
- Open all windows and doors to increase ventilation.
- If alarm stops it is necessary to discover the cause and act on consequence.
- If the alarm continues and the cause is not evident or possible to eliminate leave the room immediately and call the emergency service.

INSTALLATION

To mount the 71CNG detector,
please remove front panel.



The detector should be installed vertically at the wall – LEDs indicators are in the top-side of the cabinet, the inlet openings are on the bottom side of the cabinet.

The gas detector must not be mounted:

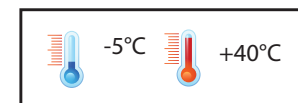
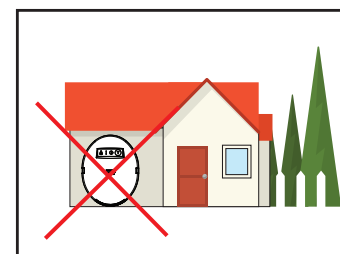
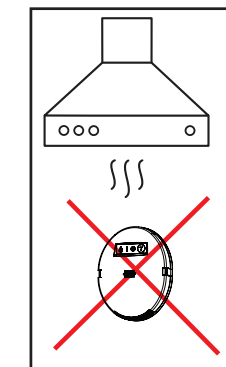
– Directly above cooking appliances;

– Directly above a sink;

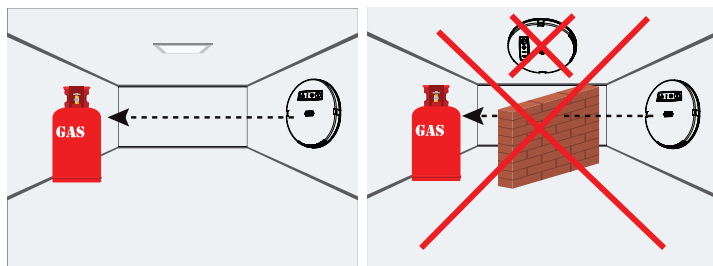
– Adjacent to extractor fans;

– In any outside location;

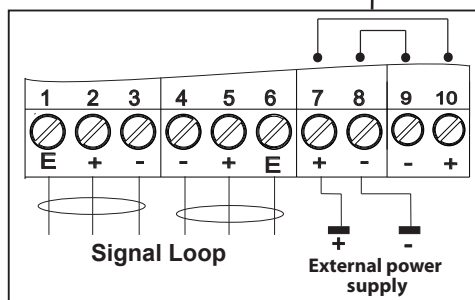
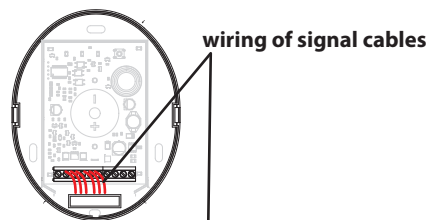
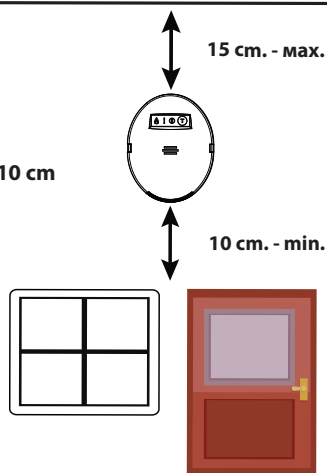
– Where the environment conditions are outside of operational specification.



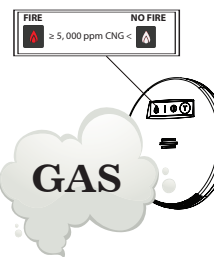
The 71CNG must be installed on an opposite wall of the possible source of danger, i.e. ovens, boilers or other. The detector should not be installed behind barriers which would interfere with immediate detection of gas.



Distance above highest
Window or door opening - min.10 cm
Distance to ceiling - max.15 cm



EXPLOITATION



The 71CNG is compatible with the EN50194-1 standard on the following trigger level – 5000 ppm CNG (methane) in air, saturation 10% LEL (Low Explosion Level) of the protected area.

The built-in the CNG detector semiconductor sensor component is with lifetime of 5 years.

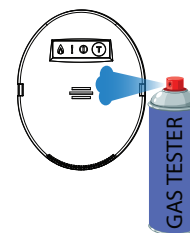
71CNG (Methane)
Replace 2022 2023 2024
1 2 3 4 5 6 7 8 9 10 11 12

After the detector is installed then the maintenance company must take care to stick and mark the detector with provided label for operation period.



BE CAREFULL !

The semiconductor sensor component/technology does not stand a gas sensing over 40% of the LEL. A gas with methane saturation over 40% of the LEL will cause damage of the sensor. An instance of gas over the 40% LEL reduces the life of the semiconductor sensor.



TEST

A test of the CNG detector is done with a simulation of gas presence, emitted from a calibrated test equipment.

Test mode

The 71CNG have test button "T" - dedicated for test trigger of the led and sound indication of the 71CNG detector.

The indicators are activated as long as the button is pressed and held.

***It is recommended to test LEDs and audible indication after installation of the detector.**



The 71CNG detector must be installed and maintained from a competent personnel.



Never clean the device with chemical products. If necessary to clean then disconnect the cables and use humid towel.