

## FLUE GAS ANALYSER

**GA-21** plus

- with a separate gas channel

**connecting instruction**

Version: 1.0  
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**madur**  
E L E C T R O N I C S

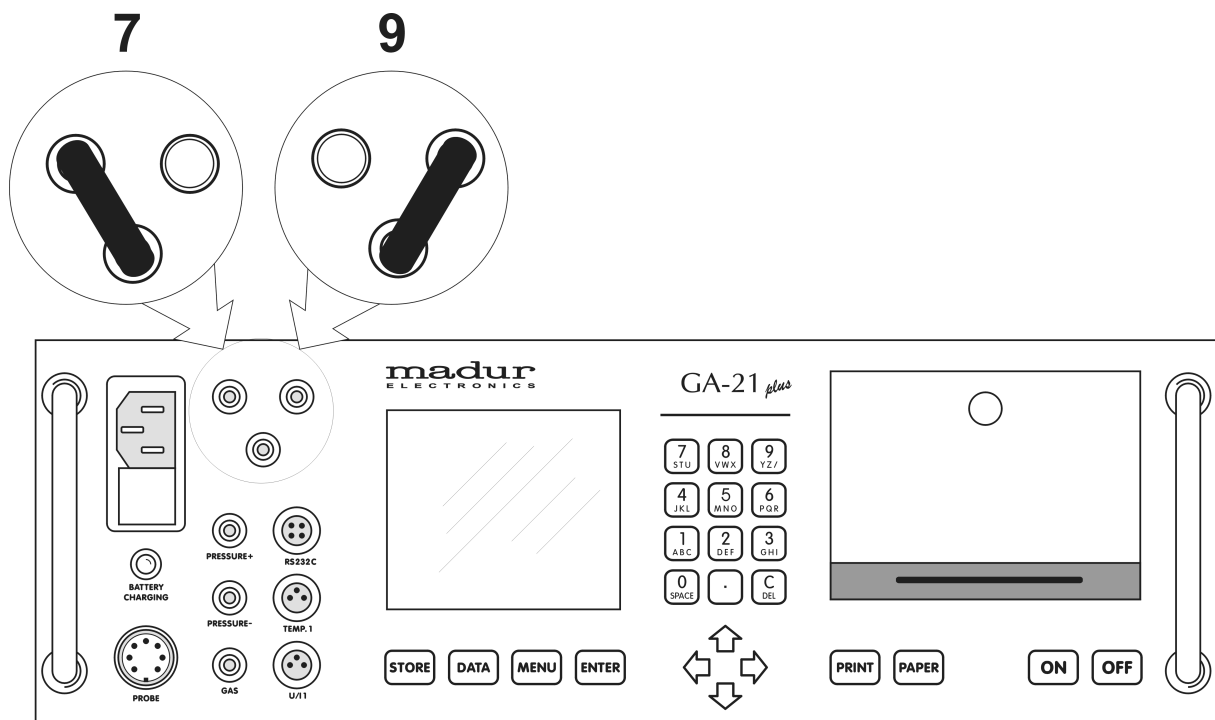
## 1. GAS CHANNEL

In the GA-21plus gas analyser with a separate gas channel it is possible to exclude CH<sub>4</sub> sensor from measurements, what significantly prolongs the lifetime of the sensor.

The exclusion of the CH<sub>4</sub> sensor is made manually by user:

1. Crossing certain inlets in the front panel of the analyser.
2. Selecting proper function in the analyser's programme.

The drawing below presents the analyser's front panel



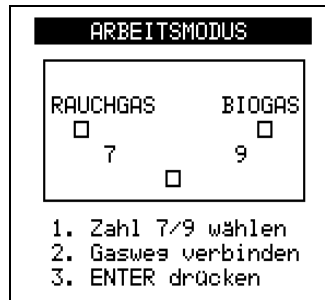
Rysunek 1. Front panel of GA-21plus with separate gas channel (BIO version).

The magnified view presents the two versions of how the inlets can be connected:

- Position 7: the bottom inlet is connected with the upper-left one. The upper-right inlet is closed. In this configuration sensor CH<sub>x</sub> is excluded – the analyser measures the concentration of the combustion gases.
- Position 9: the bottom inlet is connected with the upper-right one. The upper-left inlet is closed. In this configuration the analyser measures the concentration of biogas.

## 2. TURNING THE ANALYSER ON

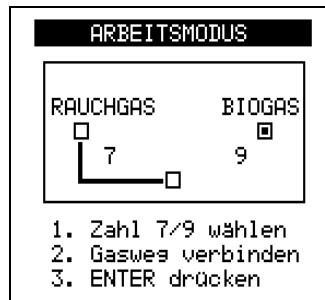
When the analyser is turned on the following screen is displayed:



Rysunek 2. Work mode selection screen.

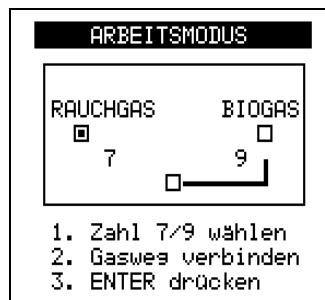
1. With help of 7 and 9 numeric-keypad keys select the analyser's work mode:

- key 7 – combustion gases measurements



Rysunek 3. Combustion gases channel selected.

- key 9 – biogases measurements



Rysunek 4. Biogas gas channel selected.

2. Remember to make the proper connections to the inlets in the analyser's front panel (as described above)
3. Accept selection with the Enter key.

The analyser then starts ventilation and zeroing phases.