

## Technical Datasheet



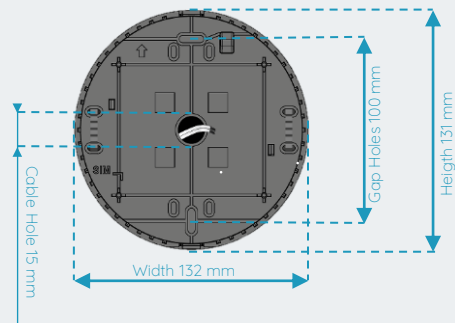
### What is Fybra School

Fybra is a smart sensor of indoor air quality based on a predictive and adaptive algorithm. Fybra autonomously learns specific indoor air quality and comfort patterns for each ambient. It is able to define the optimal time for natural ventilation by calculating the best time of windows opening. Furthermore, Fybra algorithm can work with mechanical ventilation systems to guarantee indoor air quality when there are not operable windows. It has been designed with primary Italian design companies with reference on color nuances and people reactions. Its envelope has been thought for the better airflow through stack ventilation. Red tells you when to open the window, purple shows that the air quality is improving while light blue tells you when to close the window, as the indoor quality is good.

### Dimensions



- Width: 131,57 mm
- Height: 131,00 mm
- Distance between gap holes: 100,04 mm
- Diameter of the cable hole: 14,95 mm



### Power Supply



- Direct Current
- 12/24 V
- 500 mA as minimum current

### Temperature Sensor



- Output range: -10°C to 60°C
- Accuracy:
  - ± 0,8 °C from 15 °C to 35 °C
  - ± 1,5 °C from -10 °C to 60 °C

### CO<sub>2</sub> Sensor



- Photoacoustic sensor technology PASens®
- Digital I<sup>2</sup>C interface
- Output range: 0 ppm to 40.000 ppm
- Accuracy: ± 40 ppm + 5 % from 400 to 5.000 ppm

### Humidity Sensor



- Output range: 0% to 100%
- Accuracy:
  - ± 6% from 15 °C to 35 °C, 20% - 65 %
  - ± 9% from -10 °C to 60 °C, 0% - 100%

### Connection and Communication



Fybra supports both WIFI and GSM network. When the device is connected to the WIFI network, it communicates through MQTT protocol. MQTT protocol must be always authorized. Fybra can be set with WIFI (IP) as a primary communication path and GSM (Cellular) as a secondary backup, or just WIFI stand-alone. Fybra communicates the data every 3 minutes, while the sample time is equal to 1 minute.

If requested, Fybra team makes API available to exploit Fybra Outputs with other systems.