Gas Sensor Device

Dr. Födisch
Umweltmesstechnik AG

Gas measuring device for continuous measurement and monitoring of NO_2 concentrations in the ambient air

APPLICATION

By means of the GSD 19 it is possible to determine the current NO_2 concentration of the ambience and to detect health hazard.

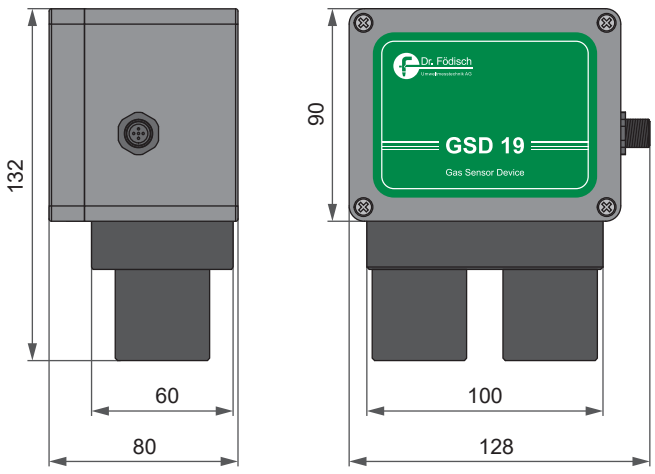
Application examples

- monitoring of NO_2 concentrations at traffic junctions, in tunnels or at crossroads
- monitoring of the NO_2 concentration at public places as well as in public buildings
- monitoring of indoor air quality at workplaces
- extension of weather stations

YOUR BENEFITS AT A GLANCE

- measuring range NO_2: 0...1 ppm / 0...2052 µg/m³; optional 0...2 ppm / 0...4100 µg/m³ (workplace monitoring)
- compact design
- active suction
- all-season application indoor and outdoor
- cross linking of several GSD 19 as well as in combination with sensors of the FDS series (particulate matter)
- network-compatible, WLAN
- Modbus interface for measuring value output and device setting
- easy installation without special tool
- applicable as add-on to particulate matter sensors of FDS type

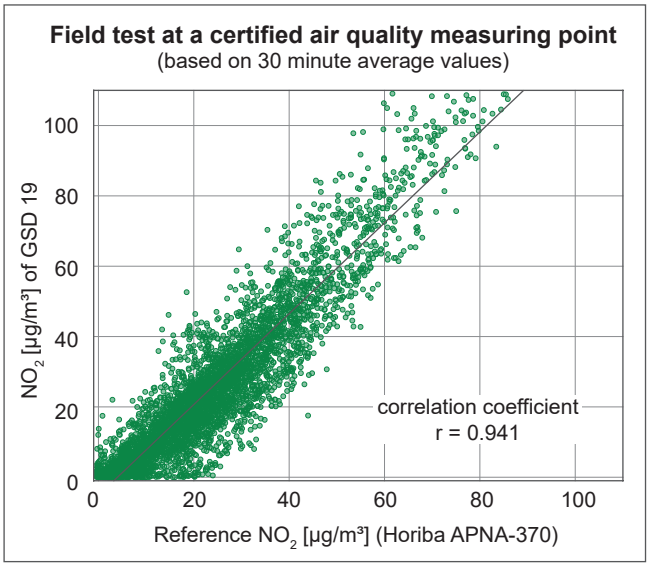
DIMENSIONS



PRECONDITIONS ON SITE

- power supply 12 V DC or 230 V AC at the installation place
- Modbus, optional WLAN

COMPARISON MEASUREMENT



FUNCTION

The determination of the NO_2 content is done by using an electrochemical cell. This is calibrated by factory and applicable in the measuring range of 0...1 ppm respectively 0...2052 µg/m³ as standard.

For gas conveyance the device has two fans with changeable filter cartridges. The air suction is respectively done via one fan. In measuring operation the ambient air is continuously sucked by the fan at the measuring gas input, cleaned from particulate matter and led through the device. A regulated heating provides the preheating of the housing interior. Thereby the protection against frost freezing is assured and the measuring value stability is improved.

For a periodic and automatic zero point setting the air is sucked by the fan at the zero gas input and led through a NO_2 filter cartridge and then cleaned.

TECHNICAL DATA

Housing:	lightweight and compact sensor housing made of plastic; IP33
Dimensions:	128 mm x 132 mm x 80 mm (w x h x d)
Weight:	approx. 400 g
Ambient temperature:	-20...+50 °C
Measuring method:	electrochemical
Measuring ranges NO_2:	• 0...0.5 ppm / 0...1000 µg/m³ • 0...1 ppm / 0...2050 µg/m³ • 0...2 ppm / 0...4100 µg/m³ (workplace monitoring, optional)
Measurement accuracy:	± 5 ppb
Detection limit:	5 ppb
Zero point setting:	automatic
Start up phase:	1.5 h
Gas flow:	fan
Connections:	M12 socket for data output and power supply
Interface:	RS485 (Modbus), WLAN
Power supply:	12 V DC
Power consumption:	15 W

Dr. Födisch Umweltmesstechnik AG
Zwenkauer Strasse 159 • 04420 Markranstädt • Germany
Phone: +49 34205 755-0 • Fax: +49 34205 755-40
E-mail: sales@foedisch.de
www.foedisch.de