



# NO2F

## Nitrogen dioxide transmitter

NO2F is intended for demand-controlled ventilation in e.g. parking garages and road tunnels.

- Electrochemical transmitter providing high selectivity
- Robust design with protection class IP56
- Linear output signal 4...20 mA or 0...10 V

NO2F is a detector intended for demand-controlled ventilation in parking garages and road tunnels etc. The detector is installed for both safety and energy-saving reasons. It measures the nitrogen dioxide concentration using an electrochemical method of measurement characterised by high selectivity even in low concentrations. The output signals are linear representations of the gas concentration.

### About vehicle emissions

Nitrogen dioxide (NO<sub>2</sub>) is produced by running diesel and gas vehicles. The gas is dangerous to inhale.

### Limit values

The limit values for nitrogen dioxide may vary from one country to another. Please check local standards and regulations. The following limit values have been set up by the Swedish Work Environment Authority (according to AFS 2005:17, Occupational exposure limit values):

Level limit value (LLV) 2 ppm  
Ceiling limit value (CLV) 5 ppm

However, when the gas comes from exhaust fumes, the level limit value is 1 ppm.

- Two-wire (4...20 mA) or three-wire (0...10 V) connection for easy installation
- TÜV-approved in accordance with VDI 2053
- Automatic zero adjustment facilitates maintenance

### Control and alarm levels

We recommend using two alarm levels, pre-alarm and full alarm. In case of a pre-alarm, the fans are to be set to full speed and strategically placed flashing lights are to be activated. In case of a full alarm, strategically placed sirens are to be started, advising people to leave the garage immediately.

Recommended levels for these alarms:

Pre-alarm	2 ppm
Full alarm	5 ppm

### Installation

NO2F is to be mounted about 20-30 cm above the floor. One detector is to be placed per 200-500 square metres garage surface, provided that the surface is open (without any "pockets") and that there is continuous air flow. The transmitter must be mounted with the cable connection pointing up.

### Service life and length of warranty

The transmitter contains a measuring element which measures the concentration of nitrogen dioxide. The construction of the measuring element makes it age faster than other types of sensors. Due to the construction of the measuring element and the calibration required at production or when making adjustments, the measuring element is non-replaceable. Instead, the transmitter must be replaced by a new unit at regular intervals to ensure proper function.

Regin recommends that the product be replaced every two years (24 months). Because of the shorter service life, the length of warranty for this particular product is 12 months.

## Technical data

Supply voltage	12...28 V DC
Power consumption	20 mA
Method of measurement	Electrochemical
Outputs	4...20 mA, two-wire 0...10 V DC, three-wire
Calibration	Automatic zero adjustment
Ambient temperature	-10...+40°C
Ambient humidity	0...90 % RH
Protection class	IP56
Dimensions (WxHxD)	80 x 82 x 86 mm
Weight	0.190 kg
Material, casing	Polycarbonate
Type of gas	Nitrogen dioxide (NO <sub>2</sub> )
Measuring range	0...20 ppm
Accuracy	< ±10 %
Lifetime sensor	~ 2 years
<b>CE</b>	The product is TÜV-approved in accordance with VDI 2053 and carries the CE-mark

## Wiring

The output signal is set via a jumper according to the figures below.

