

## DUST - Datasheet

# DUST series Gas Detectors

## eNose®4.0 Technology

### Description

DUST/AD and DUST/DY transmitters are used for the detection of a wide range of explosive, toxic and oxygen gases.

### Main Characteristics

- Managed by 32bit ARM microprocessor.
- Various technologies possibilities: Catalytic / Pellistor, Electrochemical cell, Infrared and PID for VOC.
- 4-20mA proportional output.
- Three relay outputs (Pre-alarm, Alarm, Fault) or RS-485 serial interface with MODBUS RTU protocol for installation in addressable systems and for remote calibration procedures and maintenance.
- Instant identification of gas type via faceplate with 3 different colours.
- Graphic OLED display (DY version).
- Small size and low consumption.
- Smart technology: automatic recognition of connected sensor and auto-calibration.
- Possibility to connect remote display (version with RS485).
- Single operator calibration without opening the instrument and without programming tools.
- Protection degree IP65.
- Compliant with standards: EN 60079-0:2018, EN 60079-29-1:2016, EN-50270:2015, EN 50271:2018, IEC/EN 61508:2010.
- Type of ATEX protection: **II 3G Ex-nA II T6 Gb.**
- TUV NORD **SIL2 Certificate** No. 20 20558 02.

### DUST-AD

Aluminium or stainless steel IP65 housing. Ideal for detecting combustible and toxic gases, oxygen and solvents. Strong resistance to poisonous substances.

### DUST-DY

Aluminium or IP65 stainless steel display housing. Particularly robust construction. Possibility of installing the display unit remotely. Stand-alone" configuration.



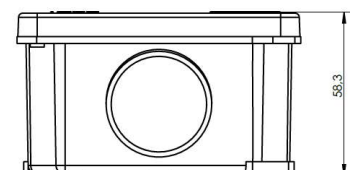
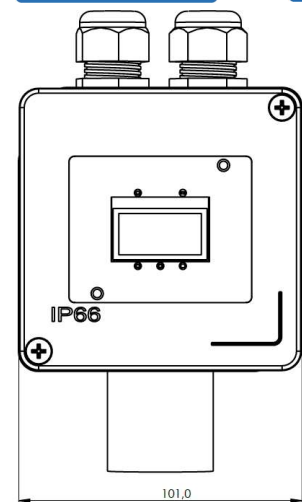
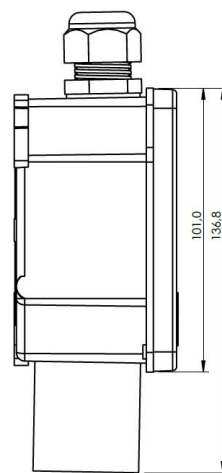
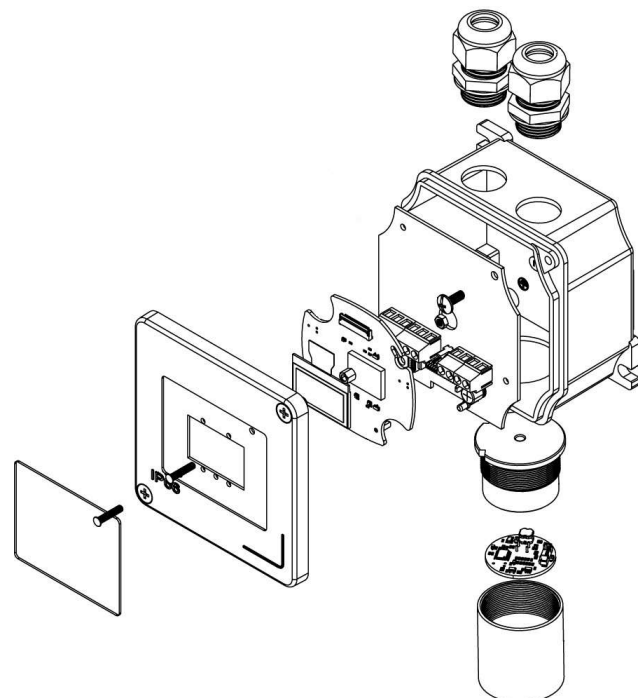
### Explosive Gases



### Toxic Gases



### Oxygen



**General specifications**

Sensors	Catalytic / Pellistor, electrochemical cells, NDIR or PID
Suitable for	Industrial Applications (ATEX zone 2)
Protection Rate	IP65
Short-term repeatability	±2% F.S. 60 min.
Long-term repeatability	±5% F.S. 3month
Precision (linearity)	±5% F.S.

**Mechanical specifications**

Dimensions	150x95x60 mm
Material	Aluminium or Stainless Steel
Weight	0.6 Kg
Mounting	Holes 2 x 6 mm
Cable entry	Cable gland M20

**Environmental specifications**

EMC	According to EN 50270
Stocking Temp.	Transmitter : -40°C to 80°C CAT : -40°C to +80°C ECC : see operating manual
Working Temp.	Transmitter : -30°C to +70°C
Relative Humidity	90% R.H. n.c.

**Electrical specifications**

Power supply	24 Vdc (nominal) – Min. 11,7V Max. 31V
Absorption	< 2,5 Watt
Supply fuse	500mA
Signal fuse	63mA
Analogue output	4-20mA
Load	0-300Ohm at 24Vdc
Cable type	4-20mA: 3 wires Shielded Cable Relays: 2 conductors cable
Relays contacts rate	60V 1,5A

**Products Coding**

eNose®4.0 detectors consist of two parts: transmitter and ensor.

Transmitter codes:

Model		Gas type	Outputs	Housing
DUST	- AD = Without display	- EX = explosive gases	- 1 = 4-20mA + RELAY	- AL = Aluminium
	- DY = With display	- TX = toxic gases	- 2 = 4-20mA + 2 RS485	- SS = SS316 (Stainless Steel)
		- O2 = oxygen		

Sensors codes:

Sensor code	Technology	Gas code
SE	1 = Catalytic / Pellistor	## = Gas type
	2 = IR	
	3 = Electrochemical cell	

If, several Full Scale values are available for the same gas, they are identified with a dash and a sequential number, e.g.:

Sensor code	Gas type	F.S. in ppm
SE320	Carbon Monoxide (TOX)	300
SE320-1	Carbon Monoxide (TOX)	500
SE320-2	Carbon Monoxide (TOX)	1000

See document 'Available Sensors List Table' for other available gases, contact the manufacturer for gases not listed.

Accessories Codes:

Code	Description
GDA – SD – 1	Splash deflector
GDA – CO – 1	Collector cone for gases lighter than air
GDA – CO – 1 – T	Collector cone for light gases for remote Test & Calibration
GDA – FA – 1	Calibration adapter for GM1 head
GDA – MAG – 4	Calibration Magnet
GDA – MAG – 3	Tool with magnetic head for eNose®4.0 detectors
GDA – TK	Calibration Kit toolbag
Enoblu2	Software for configuration and maintenance for eNose®4.0 detectors