

# TOXIC AND EXPLOSIVE GAS TRANSMITTERS


## DUST series with enose® Technology



### DESCRIPTION

Gas detectors DUST/AD and DUST/DY are rugged and intelligent gas transmitter for a variety of Explosive and Toxic gases.

### Main Characteristic

- Microprocessor based
- 4-20 mA output
- Three Voltage free relay contacts output
- RS-485 MODBUS RTU serial interface or  Bluetooth protocol for remote control and maintenance operations.
- LCD Display 8x2 characters
- Non Intrusive "One Person" calibration procedure
- Fully programmable
- Small size
- Low Power consumption

## DUST-AD

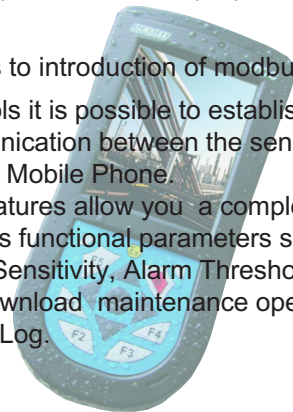
### IP65 Aluminium and Stainless Steel body

Ideal for detection of combustible gases and solvents  
Strong poison resistant properties

Thanks to introduction of modbus or  Bluetooth

protocols it is possible to establish a direct communication between the sensor and your PC, PDA or Mobile Phone.

This features allow you a complete control of all sensor's functional parameters such as Zero, Span, Sensitivity, Alarm Thresholds TWA, STEL and Download maintenance operations reports or events Log.



## DUST-DY

### IP65 Aluminium and Stainless Steel body with display

Sturdy construction

Built-in or remote sensor transmitter  
Built-in relays enable full stand-alone capability



Comply with: **EN-60079-0, EN 60079-29-1, EN-50270.**

Type of protection: **II 3G Ex nA II T6 IP65**

### MAIN SUBSTANCES LIST (IR Infrared Technology)

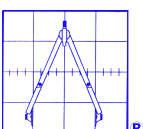
SUBSTANCES	DESCRIPTION	Prod.cod.
Methane (CH <sub>4</sub> )	Infrared sensor for fixed detecting systems of explosive substances 0-100%L.E.L.	DUST/AD/201/...
Propane (C <sub>3</sub> H <sub>8</sub> )	Infrared sensor for fixed detecting systems of explosive substances 0-100% L.E.L.	DUST/AD/204/...
Carbon Dioxide (CO <sub>2</sub> )	Infrared sensor for fixed detecting systems of CO <sub>2</sub> 0-20000ppm (0-2%v/v) up to 0-100%v/v	DUST/AD/279/...

### MAIN SUBSTANCES LIST (Catalytic Technology)

Methane (CH <sub>4</sub> )	General purpose catalytic sensor for fixed detecting systems of explosive substances 0-100%L.E.L.	DUST/AD/101/...
L.P.G. (Mix)	General purpose catalytic sensor for fixed detecting systems of explosive substances 0-100%L.E.L.	DUST/AD/102/...
Propane (C <sub>3</sub> H <sub>8</sub> )	General purpose catalytic sensor for fixed detecting systems of explosive substances 0-100% L.E.L.	DUST/AD/104/...
Hydrogen (H <sub>2</sub> )	General purpose catalytic sensor for the detection of H <sub>2</sub> 0-100% L.E.L.	DUST/AD/127/...
Ammonia (NH <sub>3</sub> )	General purpose catalytic sensor NH <sub>3</sub> 0-100% L.E.L.	DUST/AD/140/...
Ammonia (NH <sub>3</sub> )	High Quality catalytic sensor NH <sub>3</sub> 0-2% v/v (0-20.000ppm)	DUST/AD/141S/...

Many other substances available, please contact us or visit our web site [www.oggonisas.com](http://www.oggonisas.com)

Copyright Oggioni s.a.s.



**OGGIONI S.a.s. Via Lavoratori Autobianchi, 1 - P.T.B. Edif.13/O - 20832 Desio (MB) Italy**  
Tel.+39 0362 629135 Fax. +39 0362 622531 e-mail: [info@oggonisas.com](mailto:info@oggonisas.com) - [www.oggonisas.com](http://www.oggonisas.com)

## MAIN SUBSTANCES LIST (Electrochemical Cells Technology)

SUBSTANCES	DESCRIPTION	Prod.cod.
Ammonia (NH <sub>3</sub> )	Electrochemical Cell for NH <sub>3</sub> 0-100 / 0-500 / 0-1000 / 0-5.000 ppm	DUST/AD/340/...
Carbon monoxide (CO)	Electrochemical Cell for CO 0-300 / 0-500 ppm	DUST/AD/320/...
Hydrogen sulphide (H <sub>2</sub> S)	Electrochemical Cell for H <sub>2</sub> S 0-20 / 0-100 ppm	DUST/AD/369/...
Oxygen (O <sub>2</sub> )	Electrochemical Cell for O <sub>2</sub> 0-25% Vol.	DUST/AD/361/...
Sulphur dioxide (SO <sub>2</sub> )	Electrochemical Cell for SO <sub>2</sub> 0-20 ppm	DUST/AD/370/...

## MAIN SUBSTANCES LIST (PID Photoionization Detector)

VOCs	Photoionization Detector optimised for VOCs 0-400 ppm (Other ranges available)	DUST/AD/571/...
------	--	-----------------

## Outputs Configurations

Outputs	Description	Code
4-20 mA + RS485	Analog current loop + Serial RS485 Modbus Protocol	<b>AAS</b> (DUST/AD & DY)
3 Relays + RS485	Voltage free contacts 1A 100 Vdc max. + Serial RS485 Modbus Protocol	<b>CCS</b> (DUST/AD only)
3 Relays + 4-20mA + RS485	Voltage free contacts 1A 100 Vdc max. + Analog current loop + Serial RS485 Modbus Protocol	<b>CAS</b> (DUST/DY only)

## GENERAL SPECIFICATIONS

Sensors	Catalytic pellistor or electrochemical cells or Infrared or chemical absorption cell
Location	Industrial sites (Classified Zone 2 areas)
Degree of protection	IP65
Short-term repeatability	±2% FSD 60 min.
Long-term repeatability	±5% FSD 3 months.
Accuracy(linearity)	±5% FSD

## ENVIRONMENTAL SPECIFICATIONS

EMC	According to EN61000-4
Storage temperature	-40 to 85 °C
Operating temperature	-20 to 70 °C
Humidity range	90% R.H. n.c.

## MECHANICAL SPECIFICATIONS

Overall dimensions	150x80x70 mm
Materials	Aluminium or Stainless Steel
Weight	0.5 Kg.
Mounting	4 x 6 mm holes
Termination	PG-16 Terminal block

## ELECTRICAL SPECIFICATIONS

Supply Voltage	12-30 Vdc
Power consumption	1 watt (AAS Version)
Supply fuse	500 mA
Signal fuse	63 mA
Analog output	4-20 mA
Load	0-300 ohms at 24Vdc
Cable Type	3 conductors cable (4-20mA Version)
Relay Contact Rating	Max. 1A - 100Vdc - 150mΩ

## PART NUMBER DESCRIPTION

Body	Description	Technology	Substance Code	Output Configuration Code
DUST/AD	Aluminium IP65	1 (Catalytic sensor)	01 (methane)	AAS Analog 4-20mA + RS485
DUST/DY	Aluminium IP65	2 (Infrared sensor)	02 (L.P.G.)	CCS Relay Contacts + RS485 (DUST/AD only)
	Aluminium IP65	3 (Electrochemical cell)	27 (Hydrogen)	CAS Relay Contacts + 4-20mA + RS485 (DUST/DY only)
	Aluminium IP65	4 (Chem. Absorption sensor)	61 (Oxygen)	



Example: Part Number of gas detector **II 3G Ex nA II T6** (Classified areas Zone 2) with catalytic sensor for methane with analogue proportional output 4-20 mA in aluminium housing: Code **DUST/AD/101/AAS**

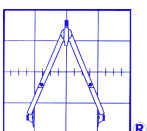


Example: Part Number of gas detector **II 3G Ex nA II T6** (Classified areas Zone 2) with electrochemical cell for ammonia with relay contacts output in a Stainless Steel housing: Code **DUST/DY/340/CAS**

Copyright Oggioni s.a.s.

OGGIONI s.a.s. reserves the right to change published specifications and designs without prior notice.

Distributed by:



**OGGIONI s.a.s.** Via Laboratori Autobianchi, 1 - P.T.B. Edif.13/O - 20832 Desio (MB) Italy  
Tel.+39 0362 629135 - Fax. +39 0362 622531 - e-mail: [info@oggionisas.com](mailto:info@oggionisas.com) - [www.oggionisas.com](http://www.oggionisas.com)