Gas
Technical features - MODELS

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CO gas sensor
Sensor for measuring Carbon Monoxide in indoor applications.

Order numb.	ESO101#C	DSO101#C	DSO102#C
Range	0÷1.000 ppm	0÷1.000 ppm	
Output	60÷300 mV	60÷300 mV	4÷20 mA
Cable + connector	L 2 m + mini Din connector	L 10 m free wires	
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

NO2 gas sensor
Sensor for measuring Hydrogen Dioxide in indoor applications.

Order numb.	ESO108#C	DSO108#C	DSO109#C
Range	0÷20 ppm	0÷20 ppm	0÷20 ppm
Output	60÷300 mV	60÷300 mV	4÷20 mA
Cable + connector	L 2 m + mini Din connector	L 10 m free wires	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

SO2 gas sensor
Sensor for measuring Sulfur Dioxide in indoor applications.

Order numb.	ESO111#C	DSO111#C	DSO112#C
Range	0÷20 ppm	0÷20 ppm	0÷20 ppm
Output	60÷300 mV	60÷300 mV	4÷20 mA
Cable + connector	L 2 m + mini Din connector	L 10 m free wires	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

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H2S gas sensor

Sensor for measuring Hydrogen Sulfide in indoor applications.

Order numb.	ESO119#C	DSO119#C	DSO120#C
Range	0÷50 ppm	0÷50 ppm	0÷50 ppm
Output	60÷300 mV	60÷300 mV	60÷300 mV
Cable + connector	L 2 m + mini Din connector	L 10 m free wires	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

O2 gas sensor

Sensor for measuring Oxygen in indoor applications.

Order numb.	ESO140#C	DSO140#C
Range	0÷25%	0÷25%
Output	60÷300 mV	60÷300 mV
Cable + connector	L 2 m + mini Din connector	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)

O3 gas sensor

Sensor for measuring Ozone in indoor applications.
The Ozone calibration is carry out by comparison using NO2 as intereference gas.

Order numb.	ESO146#C	DSO146#C
Range	0÷3 ppm	0÷3 ppm
Output	60÷300 mV	60÷300 mV
Cable + connector	L 2 m + mini Din connector	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)

NO gas sensor

Sensor for measuring nitrogen monoxide in indoor applications.

Order numb.	ESO104#C	DSO104#C	DSO105#C
Range	0÷100 ppm	0÷100 ppm	0÷100 ppm
Output	60÷300 mV	60÷300 mV	4÷20 mA
Cable + connector	L 2 m + mini Din connector	L 10 m free wires	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

NH3 gas sensor

Sensor for measuring Ammonia in indoor applications.

Order numb.	ESO115#C	DSO115#C	DSO116#C
Range	0÷50 ppm	0÷50 ppm	0÷50 ppm
Output	60÷300 mV	60÷300 mV	4÷20 mA
Cable + connector	L 2 m + mini Din connector	L 10 m free wires	L 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

Common features

Principle	PID
Uncertainty	3% range
Resolution	0÷20 ppm : 0,01 ppm Isobutylene response 0÷2000 ppm: 1 ppm Isobutylene response
Operative temperature	-40÷+40°C
Threshold	0÷20 ppm: <0,01 ppm 0÷2000 ppm: <0,1 ppm
Humidity response	<1 ppm at 90RH%
Sensor life	1 year
Power consumption	30 mA
Output	60÷300 mV
Cable	L 50 cm
Connector	Mini-din
Input type on E/M/R-Log	N. 1 analog
Mounting	On BVA311-313 stands
Calibration certificate	DZC501.S included

continued

Common features	CO	NO2	SO2
Principle	Electrochemical cell	Electrochemical cell	Electrochemical cell
Detectable threshold	1 ppm	1 ppm	1 ppm
Repeatibility (% reading)	1%	2%	2%
Resolution	0,5 ppm	0,1 ppm	0,5 ppm
Operative temperature	-20÷+50°C	-20÷+50°C	-20÷+50°C
Drift signal loss / month	<5% year	<2% year	<2% year
Temp.coeff. (%signal/°C)	<+0,4	<+0,15	<+0,05
Typical baseline range in pure air	-1÷+3 ppm	-0,1÷+0,1 ppm	-0,1÷+0,2 ppm
Max zero shift (+20+40°C)	9 ppm	0,2 ppm	0,1 ppm
Response time (T90)	30 sec	40 sec	15 sec
Sensor life	3 years	2 years	2 years
Power supply	12 Vdc		
Power consumption	10 mA		
Mounting	On BVA311-313 stands		
Calibration certificate	DZC501.S included		

Common features	H2S	02	O3
Principle	Electrochemical cell	Electrochemical cell	Electrochemical cell
Threshold	1 ppm	1 %	1 ppm
Repeatibility (% reading)	1%	na	5%
Resolution	0,1 ppm	0,1%	0,1 ppm
Operative temperature	-20÷+50°C	-20÷+50°C	-20÷+50°C
Drift signal loss / month	<2% year	<5% year	<2% year
Temp.coeff. (%signal/°C)	<+0,3	<+0,2	<4%
Typical baseline range in pure air	-0,2÷+0,4 ppm	na	0÷+0,1 ppm
Max zero shift (+20+40°C)	0,1 ppm	na	0,04 ppm
Response time (T90)	30 sec	15 sec	150 sec
Sensor life	2 years	2 years	2 years
Power supply	12 Vdc	12 Vdc	12 Vdc
Power consumption	10 mA		
Mounting	On BVA311-313 stands		
Calibration certificate	DZC501.S included		

continued

Common features	NO	NH3
Principle	Electrochemical cell	Electrochemical cell
Threshold	1 ppm	1 ppm
Uncertainty	na	na
Repeatibility (% reading)	1%	10%
Resolution	0,5 ppm	0,5 ppm
Operative temperature	-20÷+50°C	-25÷+30°C
Drift signal loss / month	<2% year	<10% year
Temp.coeff. (%signal/°C)	<+0,2	<+1
Typical baseline range in pure air	-0÷+3 ppm	0÷+10 ppm
Max zero shift (+20+40°C)	9 ppm	10 ppm
Response time (T90)	10 sec	180 sec
Sensor life	3 years	1 year
Power supply	12 Vdc	12 Vdc
Power consumption	10 mA	10 mA
Mounting	On BVA311-313 stands	
Calibration certificate	DZC501.S included	

continued

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CO^2 sensor

Sensor for measuring Carbon dioxide.
This sensor uses infrared absorption cell methode.

Order numb.	ESO203#C	DSO204#C	DSO205#C
Measurements	CO^2	CO^2	CO^2 Temp. -20÷+60°C (Acc.0,5°C) UR% 0-100% (Acc.±2%)
Output	0,2÷1 V	4÷20 mA	RS485 (Modbus)
Cable + connector	L = 2m + Mini Din connector	Connector IP65	Terminals
Power supply	6÷9 Vdc	10÷30 Vac/Vdc	10÷30 Vac/Vdc
Power conumption	4 mA	4 mA	4 mA
Datalogger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008) R-Log (ELR515) E-Log (all models)	

Common features

Measurement range	0÷5000 ppm
Principle	Infrared absorption cell (NDIR)
Uncertainty (25°C, 1013 hPa)	± (50 ppm +3% reading value)
Resolution	1 ppm
Response time (t90)	< 195 sec
Temperature dependence	2 ppm CO2/°C (0÷50°C)
Long term stability	20 ppm / year
Environmental limits	-20÷60°C, 5÷95UR% (without condensation)
Calibration certificate	Included

VOCs sensor

Sensor for measuring Volatile organic compounds.

Order numb.	ESO150#C	ESO152#C	DSO150#C	DSO152#C
Range	0÷20 ppm	0÷2000 ppm	0÷20 ppm	0÷2000 ppm
Output	60÷300 mV	60÷300 mV	60÷300 mV	4÷20 mA
Cable + connector	L = 2 m + mini Din connector	L = 2 m + mini Din connector	L = 10 m free wires	L = 10 m free wires
Data logger compatibility	M-Log (ELO009) R-Log (ELR510)	M-Log (ELO007-008), R-Log (ELR515), E-Log (all models)		

Common features

Principle	PID
Uncertainty	3% range
Resolution	0÷20 ppm: 0,01 ppm Isobutylene response 0÷2000 ppm: 1 ppm Isobutylene response
Operative temperature	-40÷+40°C
Threshold	0÷20 ppm:<0,01 ppm 0÷2000 ppm: <0,1 ppm
Humidity response	<1 ppm at 90RH%
Sensor life	1 year
Power consumption	30 mA
Output	60÷300 mV
Cable	L.50 cm
Connector	Mini-din
Input type on E/M/R-Log	N.1 analog
Mounting	On BVA311-313 stands
Calibration certificate	DZC501.S included