

E instruments

ECOLine OL S100..400 Mk2

Analizzatori Fissi di Gas per misura in continuo

ECOLine
Combustion Gas Analysis

- Fino a 4 sensori :
O₂ CO CO₂
NO NO₂ NO_x
SO₂ H₂S C_xH_y N₂O
elettrochimico o NDIR
- Sistema di campionamento integrato con condensatore a Peltier per funzionamento in continuo
- Temperatura
- Pressione Atmosferica
- Pressione Differenziale
- Uscita analogica 4-20mA o 0-10 V
- Sonda industriale
- Datalogger su memory card SD
- Uscita RS232, RS485, Relè allarme
- Uscita Ethernet



L'analizzatore di gas ECOLine OL S100..400 è stato sviluppato per funzionare in continuo e quindi può essere installato in prossimità del processo. I quattro modelli si differenziano per il numero di sensori installati all'interno (S100 1 gas, S200 2 gas, S300 3 gas e S400 4 gas) che possono essere selezionati tra elettrochimici o NDIR per la misura degli inquinanti come gli ossidi di azoto NO_x, NO₂, SO₂, H₂S, C_xH_y e CO₂ o O₂ e N₂O. L'analizzatore è costruito con parti dimensionate per utilizzi gravosi e quindi adatte ad applicazioni a lungo termine in ambienti industriali senza necessità di frequenti manutenzioni. Le applicazioni tipiche sono negli impianti a Biogas, discariche, serre, inceneritori, combustione ed in ambito sicurezza. Le uscite analogiche possono essere abbinare ad uscite digitali anche per collegamento in rete. E' possibile impostare dei funzionamenti ciclici con la memorizzazione dei dati sulla carta SD.



EColine OL S100..400

O ₂ – Oxygen	Electrochemical, partial pressure	20.95% 0.01%	± 0.1% abs. or 5% rel.	45 sec	ISO 12039, CTM-022
O ₂ – Oxygen	Electrochemical, partial pressure	25.00% 0.01%	± 0.1% abs. or 5% rel.	45 sec	ISO 12039, CTM-022
O ₂ – Oxygen	Electrochemical, partial pressure	100.00% 0.1%	± 0.1% abs. or 5% rel.	45 sec	ISO 12039, CTM-022
CO – Carbon monoxide	Electrochemical sensor	4 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	ISO 12039, CTM-022
CO – Carbon monoxide	Electrochemical, with H2 compensation	4 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	ISO 12039, CTM-022
CO – Carbon monoxide	Electrochemical sensor	20 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	ISO 12039, CTM-022
CO – Carbon monoxide	Electrochemical, with H2 compensation	20 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	ISO 12039, CTM-022
CO – Carbon monoxide	Electrochemical sensor	10% 0.001%	± 0.005% abs. or 5% rel.	45 sec	ISO 12039, CTM-022
CO – Carbon monoxide	NDIR	10% 0.01%	± 0.05% abs. or 5% rel.	45 sec	EN 15058, Method 10
CO – Carbon monoxide	NDIR	25% 0.01%	± 0.05% abs. or 5% rel.	45 sec	EN 15058, Method 10
CO – Carbon monoxide	NDIR	50% 0.01%	± 0.05% abs. or 5% rel.	45 sec	EN 15058, Method 10
CO – Carbon monoxide	NDIR	100% 0.1%	± 0.5% abs. or 5% rel.	45 sec	EN 15058, Method 10
CO ₂ – Carbon dioxide	NDIR	5% 0.01%	± 0.05% abs. or 5% rel.	45 sec	ISO 12039, OTM-13
CO ₂ – Carbon dioxide	NDIR	10% 0.01%	± 0.05% abs. or 5% rel.	45 sec	ISO 12039, OTM-13
CO ₂ – Carbon dioxide	NDIR	25% 0.01%	± 0.05% abs. or 5% rel.	45 sec	ISO 12039, OTM-13
CO ₂ – Carbon dioxide	NDIR	50% 0.01%	± 0.05% abs. or 5% rel.	45 sec	ISO 12039, OTM-13
CO ₂ – Carbon dioxide	NDIR	100% 0.1%	± 0.5% abs. or 5% rel.	45 sec	ISO 12039, OTM-13
C _x H _y – Total Hydrocarbons	NDIR	1% 0.01%	± 0.05% abs. or 5% rel.	45 sec	
C _x H _y – Total Hydrocarbons	NDIR	5% 0.01%	± 0.05% abs. or 5% rel.	45 sec	
C _x H _y – Total Hydrocarbons	NDIR	10% 0.01%	± 0.05% abs. or 5% rel.	45 sec	
C _x H _y – Total Hydrocarbons	NDIR	25% 0.01%	± 0.05% abs. or 5% rel.	45 sec	
C _x H _y – Total Hydrocarbons	NDIR	50% 0.01%	± 0.05% abs. or 5% rel.	45 sec	
C _x H _y – Total Hydrocarbons	NDIR	100% 0.1%	± 0.5% abs. or 5% rel.	45 sec	
NO – Nitric oxide	Electrochemical sensor	1 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	CTM-022
NO – Nitric oxide	Electrochemical sensor	5 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	CTM-022
NO ₂ – Nitrogen dioxide	Electrochemical sensor	1 000ppm 1ppm	± 5ppm abs. or 5% rel.	60 sec	CTM-022
NO ₂ – Nitrogen dioxide	Electrochemical sensor	4 000ppm 1ppm	± 5ppm abs. or 5% rel.	60 sec	CTM-022
SO ₂ – Sulphur dioxide	Electrochemical sensor	2 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	
SO ₂ – Sulphur dioxide	Electrochemical sensor	5 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	
H ₂ S – Hydrogen sulfide	Electrochemical sensor	1 000ppm 1ppm	± 5ppm abs. or 5% rel.	70 sec	
H ₂ S – Hydrogen sulfide	Electrochemical sensor	10 000ppm 1ppm	± 5ppm abs. or 5% rel.	45 sec	
H ₂ – Hydrogen	Electrochemical sensor	2 000ppm 1ppm	± 10ppm abs. or 5% rel.	50 sec	
H ₂ – Hydrogen	Electrochemical sensor	20 000ppm 1ppm	± 10ppm abs. or 5% rel.	70 sec	
H ₂ – Hydrogen	Thermal Conductivity Detector	10% 0.1%	± 0.5% abs. or 5% rel.	45 sec	
H ₂ – Hydrogen	Thermal Conductivity Detector	25% 0.1%	± 0.5% abs. or 5% rel.	45 sec	
H ₂ – Hydrogen	Thermal Conductivity Detector	50% 0.1%	± 0.5% abs. or 5% rel.	45 sec	
H ₂ – Hydrogen	Thermal Conductivity Detector	100% 0.1%	± 0.5% abs. or 5% rel.	45 sec	
N ₂ O – Nitrous oxide	NDIR	2 000ppm 1ppm	± 10ppm abs. or 5% rel.	45 sec	ISO 21258
N ₂ O – Nitrous oxide	NDIR	5 000ppm 1ppm	± 10ppm abs. or 5% rel.	45 sec	ISO 21258
CHF ₃ – Fluoroform (Refrigerant R23)	NDIR	2.5% 0.01%	± 0.05 abs. or 5% rel.	45 sec	
Cl ₂ - Chlorine	Electrochemical sensor	250ppm 1ppm	± 5ppm abs. or 5% rel.	60 sec	
VOC - Volatile Organic compounds	PID - Photo Ionization Detector	100ppm 1ppm	± 5ppm abs. or 5% rel.	120 sec	Method 21
VOC - Volatile Organic compounds	PID - Photo Ionization Detector	1 000ppm 1ppm	± 5ppm abs. or 5% rel.	120 sec	Method 21

EColine OL S100..400

Caratteristiche

Misura di altri parametri :

- Temperatura con termocoppia
- Temperatura con Pt500
- Pressione Atmosferica
- Pressione Differenziale

Calcoli

- Concentrazione in ppm o mg/Nm³
- Tutti i valori visualizzati sul display.
- Calcolo NOx da NO o NO e NO₂

Funzioni del Software

- Autozero e tempi di misura programmabili
- Autodiagnostica continua
- Compensazione drift di temperatura

Funzioni Hardware

- Custodia in ABS per montaggio a muro
- Sistema di campionamento con raffreddatore peltier e pompa peristaltica
- per svuotamento acqua condensa
- Elettrovalvola per autozero automatico
- RS232 o RS485 multipunto

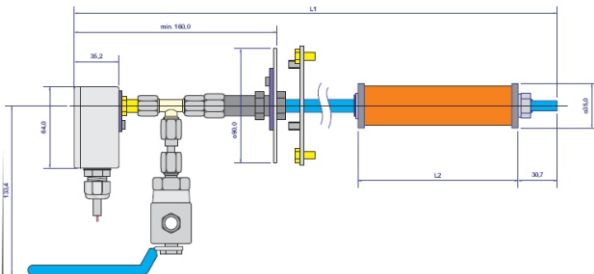
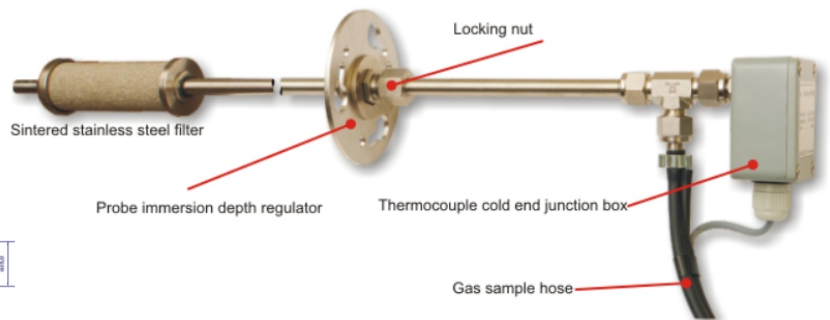
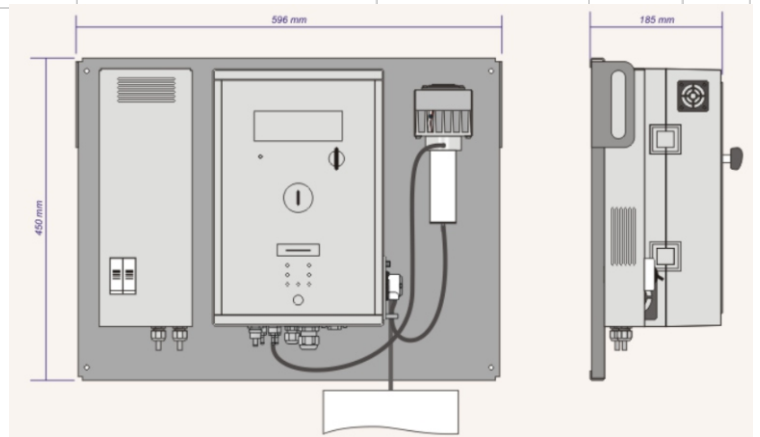
Codici d'ordine

- S100 Analizzatore 1 sensore
 - S200 Analizzatore 2 sensori
 - S300 Analizzatore 3 sensori
 - S400 Analizzatore 4 sensori
- a scelta tra quelli presenti in tabella.

Opzioni :

- Misura temperatura
- Misura pressione
- Display (massimo 4)
- Datalogger con memory card
- Convertitore per USB o Ethernet
- Sonda industriale

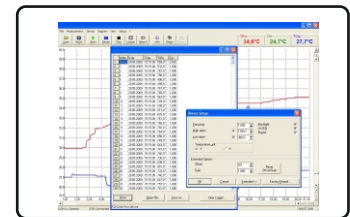
Variable	Method	Range resolution	Accuracy	Time (T ₉₀)
T _{gas} – gas temperature	K-type thermocouple	-50 ÷ 1000°C 0.1°C	± 2°C	10 sec
T _{gas} – gas temperature	S-type thermocouple	-50 ÷ 1500°C 0.1°C	± 2°C	10 sec
T _{amb} – boiler intake air temperature	PT500 resistive sensor	-50 ÷ 100°C 0.1°C	± 2°C	10 sec
Differential pressure	Silicon piezoresistive pressure sensor	-25hPa ÷ +25hPa 1Pa (0.01hPa)	± 2Pa abs. or	10 sec
Gas flow velocity	Indirect, with Pitot tube & pressure sensor	1 ÷ 50m/s 0.1m/s	0.3m/s abs. or	10 sec
Lambda λ – excess air number	Calculated	1 ÷ 10 0.01	± 5% rel.	10 sec
qA – stack loss	Calculated	0 ÷ 100% 0.1%	± 5% rel.	10 sec
Eta η – combustion efficiency	Calculated	0 ÷ 120% 0.1%	± 5% rel.	10 sec



Parametro	Descrizione
Dimensioni	420 x 360 x 140 mm
Peso senza sonda	ca. 5 kg
Alimentazione	24 VAC / 120 W
Pompa di aspirazione	Pompa a Membrana da 1.5 l/min
Display	LCD, fino a 4 misure
Data logger	MMC Card 256 MB
Uscite analogiche	Corrente 0/4-20 mA, Tensione 0-10 V, programmabili
Interfacce digitali	RS 232C o RS485
Temperatura di lavoro	0°C + 50°C
Temperatura di immagazzinaggio	-20 + +55°C
Umidità Ambiente	5 + 90 %, non-condensante

Software

- Software Windows
- Datalogging
- Controllo remoto
- Salvataggio dati su PC
- Connessione via RS232/RS385



Distribuito da :

