# ecom-EN3 SERIES

Housed in a rugged case the ecom-EN3 Series analyzer is easy to operate, reliable...
to get the job done right the first time.

Quickest response time & most advanced filtration in its class






Bluetooth WiFi

# PORTABLE GAS ANALYSIS

Made in Germany

## Accurate
Its advanced sample conditioning system with CO over-range protection provides for accurate measurement results

## Reliable
Equipped with proven sensor technology and long-life gas pump the ecom-EN3 Series can be used for State & local protocol testing

## Portable
Offered in two rugged case options the analyzer adapts to your portability requirements

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ecom® Measurement Technology

*"Easy transport, quick response & simple data collection."*

# GETS THE JOB DONE

## Tuning and verification of commercial & industrial combustion processes



- Up to six (6 ) gas sensors including infrared
- Easy sensor replacement
- Peltier cooler sample conditioner
- Automated moisture removal
- CO sensor overload protection to avoid measurement interruption
- Brushless pump, ± 1,5 lpm flow
- $H_2$- ready, for high moisture and solid fuels applications
- Integrated printer and automated soot measurement

● = Basis EC ● = Optional EC ● = Optional NDIR; ● = Optional Pellistor

$O_2$ | CO | NO | $NO_2$ | CO % | $SO_2$ | $H_2$ | $H_2S$ | $CO_2$ | $CH_4$ | $C_xH_y$

| Technical data | | | √ Standard • Option |
|---|---|---|---|
| Measurements | Range | Resolution | Accuracy | |
| Sensors | | | | 6 |
| $O_2$ | 0...21 % | 0,1 vol. % | ± 0,3 vol. % | √ |
| CO ($H_2$-comp.) | 0...2,500 ppm (10,000 ppm) | 1 ppm | ± 20 ppm measured | √ |
| CO% | 0...63,000 ppm | 5 ppm | ± 10 % measured | • |
| $CO_2$ IR-sensor | 0...20 vol. % | 0,01 vol. % | ± 5 % measured | • |
| | 0...100 vol. % | 0,01 vol. % | ± 5 % measured | • |
| NO | 0...5,000 ppm | 1 ppm | ± 5 ppm measured | • |
| $NO_{ExtraLow}$ | 0...500 ppm | 0,1 ppm | ± 5 ppm measured | • |
| $NO_2$ | 0...1,000 ppm | 1 ppm | ± 5 ppm measured | • |
| $NO_{2\,Low}$ | 0...100 ppm | 0,1 ppm | ± 5 ppm measured | • |
| $NO_x$ | sum of NO/$NO_2$ | | | |
| $SO_2$ | 0...5,000 ppm | 1 ppm | ± 5 ppm measured | • |
| $H_2$ | 0...2,000 ppm | 1 ppm | ± 5 ppm measured | • |
| | 0...20,000 ppm | 1 ppm | ± 5 ppm measured | • |
| $H_2S$ | 0...1,000 ppm | 1 ppm | ± 5 ppm measured | • |
| | 0...5,000 ppm | 1 ppm | ± 5 ppm measured | • |
| $CH_4$ IR-sensor | 0...5 vol. % | 0,01 vol. % | ± 5 % measured | • |
| | 0...100 vol. % | 0,1 vol. % | ± 5 % vol. % of range | • |
| $C_xH_y$ Pellistor | 0...4 vol. % | 0,01 vol. % | | • |

| Technical data | |
|---|---|
| Calculated values | Range |
| $CO_2$ | 0...$CO_{2\,max}$ |
| Combustion efficiency (ETA) | 1...120 % |
| Excess air (lambda) | >1 |
| Losses qA | 0...100 % |
| $CO_{(U)}$ undiluted | x ppm |
| dew point | x° C |
| $mg/m^3$ | x $mg/m^3$ |
| mg/kWh | x mg/kWh |
| $NO_x$ | ppm |
| $O_2$ correction | x % $O_2$ |

| Measurements | Range | Resolution | Accuracy | |
|---|---|---|---|---|
| T-Gas | 32...932 °F | 0,1 °F | ± 1,5 % measured | √ |
| | 32...1,832 °F | 0,1 °F | ± 1,5 % measured | • |
| T-Air | 32...210 °F | 0,1 °F | ± 1 °F | √ |
| Draft \| △P | ± 40" $H_2O$ | 0.004" $H_2O$ | ± 2 % measured | √ |

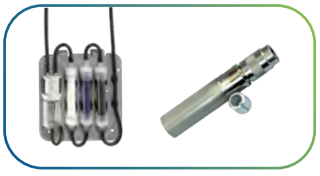
### Optional Add-ons

- Stack velocity kit
- Heated sample lines with custom lengths
- Calibration gas kits

**Heat protection shield**
To protect the probe against heat.



**Pre-Filters**
To provide additional protection for soot heavy applications.



**ecom-DP2**
Differential pressure meter that combines multiple manometers into one.



**e.CLOUD by ecom**
Digital reporting, data-, customer & equipment management.




As of 09/24, design and technical changes as well as possible printing errors are subject to change.