

ecom-D Compact freehand measurement

Thermal printer module or WiFi-connection? Condensate trap or electric gas cooler? Hand-held or compact analysis out of the suitcase? The ecom-D offers a large variety of choice.

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100% Calibration



Super-Efficiency



Shock-Proof



Safety First



Wireless Communication



All Inclusive



Cool but Dry



Lotus Effect



ecom-D

Product Features

- Up to 4 gas sensors (Longlife)
- ± 100 hPa differential pressure measurement
- Thermal quick-printer (optional module)
- Soot measurement via soot pump (option)
- Backlit display
- Condensate monitoring
- Professional gas preparation by mini gas cooler equipment (option)
- 3-chamber tubing, coaxial sampling probe
- Special tubing with Teflon sleeve e.g. for NO_x and SO_2 measurements (option)
- T-Room sensor with magnet for easy fixation on metal surfaces
- Integral module for data storage on MM card (card optional)
- Wireless Bluetooth or Wi-Fi data transfer module (option)
- ecom PC software free of charge
- Comprehensive accessory program (remote display, special probes, manual soot pump set...)

Measured values

- O_2 (0-21%)
- CO (0-4000 ppm)
- Gas temperature (0-500°C)
- Air temperature (0-99°C)
- Pressure (± 100 hPa)
- Differential pressure (± 100 hPa)

Options:

- CO extended range (0-10.000 ppm)
- CO% measurement (0-63.000 ppm)
- NO measurement (0-5000 ppm)
- NO_2 measurement (0-1000 ppm)
- SO_2 measurement (0-5000 ppm)
- H_2S measurement (on request)
- Differential temperature

Calculated Values

CO_2 , CO (undiluted), NO_x , losses, efficiency (0-120%), dew point, mg/kWh, mg/m^3 , adjustable O_2 ref.

Display

- LC display, 79 x 53 mm, 240 x 160 dots
- Graphic-capable
- Backlit for optimal reading also in the dark

Sampling Probe

- Sampling probe pistol grip style 250 mm
- Fixation cone
- 3-chamber tubing 2.6 m

Measurement Gas Preparation

- Quick gas transport (measurement values available promptly)
- Condensate trap with filter function
- Electric gas cooler (option)

Operation Safety Features

- Temperature trend indication for core stream search
- CO switch off without measurement interruption by exceeding of pre-set limit value
- Automatic fresh air purging by CO exceeding
- Automatic fresh air purging after measurement
- Optical condensate monitoring with filter function
- Electronic condensate monitoring (option)
- Longlife sensors



NEW: Wireless data transfer via WiFi

Printer

- Thermal quick-printer 58 mm (optional module)

Data Processing

- Data logging function
- Data storage on optional MM card (card optional)
- Storage and illustration of disturbance diagnosis data provided via cable connection by ecom-AK read-out head
- Data exchange with ecom PC software EN 50379-2 and 1st BimSchV approved
- Bluetooth or Wi-Fi interface at choice (option)
- Remote data view & saving/printer start via ecom-R (option)

Connections

- Charging connection at analyser
- Multifunctional interface
- USB interface for data transfer

Power Supply

- Battery (Li-Ion) / Mains power
- Including external charger

Transport

- Hard-shell transport case made out of plastics (accessory)
- Plastics transport case with foam inlets (accessory)



NEW: ecom-R remote monitor with data storing / printing capabilities by distance

Weight

- Starting by approx. 2 kg (basic version w/o. printer/gas cooler) – depending on selected features

For the perfect measurement of NO_x , SO_2 and other water-soluble gases:

- 100% calibration (climatic chamber)
- lotus effect (special PTFE tubing for gas transport)
- dry cooling (perfect gas preparation via mini Peltier cooler)



EN 50379-2 and 1st BimSchV approved

Item no.	Description
103801	ecom-D Easy With O ₂ & CO (H ₂ -comp.) Longlife sensors; fitted in aluminium housing with high-value pistol grip sampling probe SU (250 mm) D= 10 mm; thermocouple, cone and high-value 3-chamber tubing (2.60 m); high-value T-Gas plug; T-Room sensor with cable, fixation cone & magnet; power pack, automatic CO switch-off and purging (without measurement interruption); optical condensate monitoring; operation manual on USB drive; calibration certificate – issued after 100% calibration in climatic chamber; PC software for data management downloadable free of charge from www.rbr.de
103802	ecom-D Easy with thermal quick-printer module With O ₂ & CO (H ₂ -comp.) Longlife sensors; fitted in aluminium housing with high-value pistol grip sampling probe SU (250 mm) D= 10 mm; thermocouple, cone and high-value 3-chamber tubing (2.60 m); high-value T-Gas plug; T-Room sensor with cable, fixation cone & magnet; power pack, automatic CO switch-off and purging (without measurement interruption); optical condensate monitoring; thermal quick-printer module; operation manual on USB drive; calibration certificate – issued after 100% calibration in climatic chamber; PC software for data management downloadable free of charge from www.rbr.de
103803	ecom-D Expert with mini gas cooler, thermal quick-printer module and high-value hardtop transport case (lockable, with inner instrument holding device – see below) With O ₂ , CO (H ₂ -comp.), NO, NO ₂ Longlife sensors; fitted in aluminium housing with high-value pistol grip sampling probe SU (300 mm) D= 10 mm; thermocouple, cone and high-value 3-chamber NO _x tubing (3.50 m); high-value T-Gas plug; T-Room sensor with cable, fixation cone & magnet; power pack, automatic CO switch-off and purging (without measurement interruption); electronic condensate monitoring in mini gas cooler; thermal quick-printer module; operation manual on USB drive; calibration certificate – issued after 100% calibration in climatic chamber; delivered in hard-shell transport case; PC software for data management downloadable free of charge from www.rbr.de
103804	ecom-D Engine with mini gas cooler, thermal quick-printer module and high-value hardtop transport case (lockable, with inner instrument holding device – see details below) With O ₂ , CO (H ₂ -comp.), NO, NO ₂ Longlife sensors; fitted in aluminium housing with high-value pistol grip sampling probe SU (360 mm) D= 8 mm; thermocouple, cone with mini heat protection shield and high-value 2-chamber NO _x tubing (3.50 m); T-Room stick; high-value T-Gas plug; power pack, automatic CO switch-off and purging (without measurement interruption); electronic condensate monitoring in mini gas cooler; thermal quick-printer module; MM card; USB data cable; operation manual on USB drive; calibration certificate – issued after 100% calibration in climatic chamber; delivered in hard-shell transport case; PC software for data management downloadable free of charge from www.rbr.de
103994	NO measurement (0-5000 ppm). At choice with our without NO _x calculation.
104112	NO₂ measurement (0-1000 ppm) Note: NO _x measurement requires each a NO and a NO ₂ sensor.
103767	SO₂ measurement (0-5000 ppm) Special sampling tubing, for accurate NO _x and SO ₂ measurement. Slim inner diameter – high flow speed; length 3.5 m. a 5 m NO _x tubing (max. length) to fit into hard-shell transport case is available on request.
103902	CO% measurement (0-63.000 ppm) CO enhanced ppm measurement range (0-10.000 ppm)
104141	Hardtop plastics transport case with inner holding device for ecom-D compact analyser (all versions) Shock- and impact-absorbing corners, lockable (keys included); inner padded grip in ergonomic design; corner stiffening made out of semi-hard plastics, shock-protective strip. Dimensions: approx. 515 x 325 175 mm (L x D X H)
104142	Plastics transport case, black with blue folding locks and foam inserts Basic version for ecom-D storage/transport. dimensions: approx.. 530 x 400 120 mm (L x D X H). Not suitable for sampling tubing > 3.5 m and NO _x hoses.
104111	Tubing for differential pressure measurement (1.5 m)
104115	ecom-R remote control and monitoring unit - For data view, data remote recording & printout via Bluetooth data transfer (to be ordered separately). LCD display, dim. ca. 70 x 38 mm, backlit, graphic-capable. With rear magnet for fixation on metal surfaces Powered by 2 one-way batteries 1.5 V AA Mignon, incl. protection pouch. Dim.: approx. 145 x 80 x 45 (W x H x D). Also upgradeable on existing analysers.
102469	MM card, 2 GB - pre-formatted for use with ecom analysers
55818	Data cable, USB – for connection analyser to PC
104120	Bluetooth module, for wireless data transfer to PC
104122	Wi-Fi module, for wireless data transfer to PC resp. mobile end units – more info on www.rbr.de/mobile
101769	8-channel analogue output box for external logging/recording units (V / mA), incl. mains power pack, cable to analyser, RS 232 cable and software (download from www.rbr.de)
102888	T-Room stick - H 28 x Ø 11 mm
102156	T-Room sensor (PT 2000) with cable 3 m – Range -20 to 100°C; resolution 0,1°C; measurement uncertainty ±1°C
10166	T-Room probe – Length 260 mm with 3 m cable
12019	Contact sensor, room temperature (PT 2000), for differential temperature measurement. Range: -20 to 100°C; resolution: 0,1°C measurement uncertainty: ± 1°C; pipe diameter up to: 100 mm; cable length: 3 m
104119	Heating Check and 4 Pa measurement incl. accessories (capillary hoses, probes for ventilation & surface losses temperature Measurement, incl. magnet fixation)
50538	Soot pump set - Consisting of soot pump, soot comparison scale, tube of piston grease, socket wrench and 200 soot papers
100965	Universal CO multi-hole probe – telescopic, 80–280 mm
100943	Universal O₂ multi-hole probe – telescopic (80-280 mm) with three easily exchangeable sealing plugs for measurement openings from Ø 5 to 25 mm.
100815	Gas washing bottle for solid combustibles measurement - For pre-filtering of the dust-soiled gas, gas surface widening thru bubble formation and dilution of sensor-damaging organic compounds (mini Peltier cooler compulsory; non-suitable for NO _x resp. SO ₂ measurement)
100813	Mini filtering plate consisting of water trap, filtering wool cartridge, silica beads cartridge and activated carbon cartridge. Gets hooked at transport case. Incl. connection hoses.
20011620	Filtering case consisting of water trap, large filtering wool cartridge, large silica beads cartridge, large activated carbon cartridge. Incl. connection hoses.
103575	Metal filter as probe cap, made out of sintered metal. Suitable for probe tips Ø 8 mm and 10 mm (incl. tensing mechanism and lamping rings to fit the various diameters). External diameter approx. 15 mm, total length approx. 100 mm.

perfect NO_x
+ SO₂
measurement

ecom-D



ecom-D – Easy (optional with Wi-Fi)



ecom-D with thermal quick-printer module



ecom-D with gas cooler and thermal quick printer (optimal for NO_x/SO_x measurement)



Releasing aid for easy detaching of stable magnet positioning



Free hand thanks to Wi-Fi data transfer
Data transmission and process on smartphone or Laptop/PC (Apps + software free of charge)



Hardtop plastics transport case for ecom-D: The analyser can be operated while in the transport case



Plastics transport case: for ecom-D transport