



# BRIGON 500-3

**Innovative  
flue gas analyzer**

**Handy, compact,  
reliable and cost-efficient**



**TÜV By RgG 261**

## Technical data

Online-data transmission  
via Bluetooth (option)

<b>Measuring of flue gas temperature</b>	
Range:	-50 °C ... + 600 °C Typ K, 0...400 °C TÜV-approved
Resolution:	0,1 °C
Max. deviation:	≤ ± 2 °C (to 125 °C), ≤ ± 3 °C (125...250 °C), ≤ ± 4 °C (from 250 °C)
<b>Measuring of ambient air temperature</b>	
Range:	0 °C ... + 100 °C Typ K, 0...80 °C TÜV-approved
Resolution:	0,1 °C
Max. deviation:	≤ ± 1 °C
<b>Measuring of O<sub>2</sub>-concentration</b>	
Range:	0...21,0 Vol% O <sub>2</sub>
Resolution:	0,1 Vol%
Max deviation:	≤ ± 0,3 Vol%
<b>Measuring of CO-concentration</b>	
Range:	0...2000 ppm, short-time overstressing up to 4000 ppm possible
Resolution:	1 ppm
Max. deviation:	≤ ± 20 ppm (to 400 ppm), ≤ ± 5 % of reading (from 400 ppm)
<b>Measuring of pressure and draught</b>	
Range:	-80 mbar ... + 80 mbar
Resolution:	0,01 mbar
Max deviation:	≤ ± 3 %
<b>BRIGON Fixed Service Prices</b>	
after 1 year use	€ 85
after 2 years use	€ 195
after 3 years use	€ 85
after 4 years use	€ 195
Includes one year warranty extension, complete maintenance, in years 2 and 4 O <sub>2</sub> and CO sensor replacement, calibration certificate for all measuring channels on TÜV approved test stand, cleaning and software upgrade	



Item-No.	<b>BRIGON 500-3 TÜV By RgG 261, approved acc. to EN 50379-1 and EN 50379-2 for O<sub>2</sub>, CO, NO, temperature and pressure</b>																														
	<p>BRIGON 500-3, measuring and display device incl. CO sensor, O<sub>2</sub> sensor and draught- / pressure sensor, infrared interface to printer, Bluetooth interface to PC (option)</p> <p>The device for the adjustment of heating systems and for flue gas analysis as well as for CO inspection of flue gas pipes.</p> <table border="0"> <tr> <td><b>Measurements:</b></td> <td></td> <td><b>Fuels:</b></td> </tr> <tr> <td>Ambient air temperature</td> <td>0°C...+100°C</td> <td>Light oil, Liquid gas,</td> </tr> <tr> <td>Flue gas temperature</td> <td>0°C...+600°C</td> <td>Natural gas, Pellets,</td> </tr> <tr> <td>Differential pressure</td> <td>-80 mbar ... +80 mbar</td> <td>Propane, Butane</td> </tr> <tr> <td>Oxygen concentration</td> <td>0 ... 21,0 Vol% O<sub>2</sub></td> <td></td> </tr> <tr> <td>Carbon monoxide</td> <td>0 ... 2000 ppm CO (short-time overstressing to 4000 ppm)</td> <td></td> </tr> <tr> <td>Nitrogen oxide</td> <td>0 ... 600 ppm NO</td> <td></td> </tr> <tr> <td><b>Calculations:</b></td> <td></td> <td></td> </tr> <tr> <td>Carbon monoxide<sub>undiluted</sub></td> <td>Carbon dioxide CO<sub>2</sub></td> <td>Lambda</td> </tr> <tr> <td>Stack loss q<sub>A</sub></td> <td>Combustion efficiency Eta</td> <td>CO/CO<sub>2</sub>-ratio</td> </tr> </table>	<b>Measurements:</b>		<b>Fuels:</b>	Ambient air temperature	0°C...+100°C	Light oil, Liquid gas,	Flue gas temperature	0°C...+600°C	Natural gas, Pellets,	Differential pressure	-80 mbar ... +80 mbar	Propane, Butane	Oxygen concentration	0 ... 21,0 Vol% O <sub>2</sub>		Carbon monoxide	0 ... 2000 ppm CO (short-time overstressing to 4000 ppm)		Nitrogen oxide	0 ... 600 ppm NO		<b>Calculations:</b>			Carbon monoxide <sub>undiluted</sub>	Carbon dioxide CO <sub>2</sub>	Lambda	Stack loss q <sub>A</sub>	Combustion efficiency Eta	CO/CO <sub>2</sub> -ratio
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5303	<b>BRIGON 500-3 complete basic set</b> incl. measuring and display device, probe with thermocouple 250 mm, connecting cable and tube, cone, ambient air probe MINI, protective rubber sleeve with magnet, rechargeable battery Ni / MH, charger																														
5307	<b>BRIGON 500-3 with NO complete basic set (equipped as item no. 5303 + NO)</b>																														
5383	<b>BRIGON 500-3 set in ABS carrying case</b> incl. measuring and display device, probe with thermocouple 250 mm, connecting cable and tube, cone, ambient air probe 150 mm with cable 1,5 m and MINI, rubber cones set, maintenance set, protective rubber sleeve with magnet, rechargeable battery Ni / MH, charger, thermoprinter BIRD, set of tubes 1m with coupling for measuring differential pressure and ABS carrying case																														
5393	<b>BRIGON 500-3 set with NO in ABS carrying case (equipped as item no. 5383 + NO)</b>																														
5388	<b>BRIGON 500-3 set in XL ABS carrying case</b> incl. measuring and display device, grip with cable and bayonet joint, probe with thermocouple 250 mm, connecting cable and tube, multihole probe, cone, ambient air probe 150 mm with cable 1,5 m and MINI, rubber cones set, maintenance set, protective rubber sleeve with magnet, rechargeable battery Ni / MH, charger, multihole probe for measurement in balanced flues and XL ABS carrying case																														
Item-No.	<b>BRIGON accessories and spares</b>																														
5352	Ambient air probe 300 mm with cable 1,5 m																														
4450	Teflon-cone for ambient air probe 3 mm Ø																														
5031	Magnet for ambient air probe 3 mm Ø																														
5320	Probe 250mm with thermocouple, connecting cable and tube 2m																														
5321	Grip with cable for BRIGON 500-3 with bayonet joint, length 2,0m																														
5331	Probe 250 mm with thermocouple and bayonet joint																														
5340	Multihole probe with tube for flue gas pipe 60-170 mm Ø																														
5341	Multihole probe with bayonet joint for flue gas pipe 60-170 mm Ø																														
5345	Multihole probe with grip for measurement in balanced flues																														
4458	Rubber cones set 11-24 mm for multihole probe for measurement in balanced flues																														
5330	Probe for measuring chimney draught																														
3324	Particle filter (Pack of 2)																														
5385	Battery Ni / MH (pack of 4)																														
5380	Charger																														
5338	BRIGON ABS carrying case for BRIGON 500-3																														
5339	XL ABS carrying case for BRIGON 500-3																														
5370	Bluetooth interface upgrade including installation																														