

# QP1680 TOC/TN<sub>b</sub> High-Temperature Laboratory Analyser



## The QP1680 Analyser measures Total Organic Carbon (TOC) and Total Nitrogen (TN<sub>b</sub>) in one sample.

The QP1680 is available as a combined TOC and TN<sub>b</sub> analyser or for the individual parameters TOC or TN<sub>b</sub>. The most important features include:

- Direct sample injection eliminates sample contact with valves and the built-in injection syringe, which minimizes the risk of sample carry-over.
- Large diameter sample aspiration tubing can handle particles up to 800 µm, expanding possible applications and reducing clogging.
- Integrated stirrer for each sample position homogenizes particle-containing samples before injection.
- Small footprint with integrated 65-position auto-sampler requires less space in the laboratory (an auto-sampler with 96 positions is also available as an alternative).
- Simple operation, data analysis and system diagnosis thanks to an intuitive software package.

## Technical Data\*

Model	QP1680-TOC	QP1680-TOC/TN <sub>b</sub>	QP1680-TN <sub>b</sub>
Parameter	TOC	TOC, TN <sub>b</sub>	TN <sub>b</sub>
Oxidation method	Catalytic combustion at 680 °C	Catalytic combustion at 720 °C	Catalytic combustion at 720 °C
Measurement method	NDIR (non-dispersive Infrared Detection)	TOC: NDIR (non-dispersive Infrared Detection) TN: Chemiluminescence	Chemiluminescence
Analysis time	Approx. 3 minutes	Approx. 4 minutes	Approx. 3 minutes
Gas consumption	150 mL/min*	200 mL/min*	200 mL/min
		<i>*Sample preparation for NPOC determination requires additional 300-350 mL/min.</i>	
Gas specifications	Oxygen or synthetic air: minimum 99.998% (4.8) at 3 - 10 bar		
Temperature	Furnace temperature max. 1050 °C (depending on configuration)		
Measuring range	TC, TIC, NPOC, TN <sub>b</sub> : 0 - 30000 mg/L		
Detection limit	TC, TIC, NPOC: 50 µg/L TN <sub>b</sub> : 20 µg/L		
Repeatability	Up to 10 mg/L TC, TIC, NPOC, TN: < 5% > 10 mg/L TC, TIC, NPOC, TN: < 2%		
Sample volume	10 - 1000 µL		
Ambient temperature	-20 - 60 °C		
Operating conditions	20 - 30 °C; 20 - 80% relative humidity (non-condensing)		
Pollution degree	2		
Norms	TOC / NPOC: ASTM D7573, EN 1484, EPA 415.1, EPA 9060A, ISO 8245, SM 5310B, NEN-ISO 20236 TN <sub>b</sub> : ASTM D8083, EN 12260, ISO 11905-2, NEN-ISO 20236		
Power supply	Analyser: 100 - 240 VAC, 50/60 Hz, 16 A, with protective grounding PC: 100 - 240 VAC, 50/60 Hz, 1.6 A, with protective grounding Monitor: 100 - 240 VAC, 50/60 Hz, 1.6 A, with protective grounding		
Power	Analyser: 750 W max. PC: 90 W max. Monitor: 100 W max.		
Dimensions	440 mm x 380 mm x 700 mm (H x W x D)		

*\*Subject to change without notice.*

## Order Information

### Analysers

<b>LPV448.99.00001</b>	QP1680 High-Temperature TOC Analyser, with auto sampler, 65 positions
<b>LPV448.99.00501</b>	QP1680 High-Temperature TOC Analyser, with auto sampler, 96 positions
<b>LPV448.99.01001</b>	QP1680 High-Temperature TOC/TN <sub>b</sub> Analyser, with auto sampler, 65 positions
<b>LPV448.99.01501</b>	QP1680 High-Temperature TOC/TN <sub>b</sub> Analyser, with auto sampler, 96 positions
<b>LPV448.99.02001</b>	QP1680 High-Temperature TN <sub>b</sub> Analyser, with auto sampler, 65 positions
<b>LPV448.99.02501</b>	QP1680 High-Temperature TN <sub>b</sub> Analyser, with auto sampler, 96 positions



### Consumables and Accessories

<b>SMKIT500000</b>	QP1680 TOC/TN <sub>b</sub> Starter Package
<b>SMKIT501000</b>	QP1680 Consumables Kit, 2500 analysis
<b>SMKIT501100</b>	QP1680 Consumables Kit, 5000 analysis
<b>SMKIT501200</b>	QP1680 Consumables Kit, 10000 analysis
<b>SMSYS503000</b>	Solids Module for QP1680 TOC/TN <sub>b</sub> Analyser
<b>SMKIT503000</b>	Solids Module Starter Package for QP1680 TOC/TN <sub>b</sub>

### Computer

<b>SMCOM100102.99</b>	Computer incl. Windows and Monitor
<b>SMCOM100700</b>	LIMS Dongle for TEIS Software



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