

Access 643 TOC Analysis System Specifications

PERFORMANCE SPECIFICATIONS

TOC Mode —

Operating Range:	1 to 1000 ppb as carbon
Resistivity:	0.2 to 18.2 M Ω -cm
Conductivity:	0.05 to 5 μ S/cm (@ 25 °C)
Display Resolution:	1 ppb
Online Repeatability [†] :	\pm 1% or 1ppb (whichever is greater)
Maximum Input Conductivity:	0.2 μ S/cm for all waters 1.0 μ S/cm for all neutral waters 5 μ S/cm for water with CO ₂ as the sole conductive species
Ambient Operating Temperature:	15 °C to 40 °C (59 °F to 104 °F)
Sample Water Temperature:	5 °C to 95 °C (41 °F to 203 °F)
Sample Inlet Flow Rate:	60 mL/min to 300 mL/min
Sample Inlet Pressure:	10 psi to 100 psi (69 to 690 kPa)



P/N FG1002701

Conductivity (Purge) Mode —

Conductivity Mode:	Temperature Compensated to 25 °C or Uncompensated
Conductivity Range:	0.05 to 150 μ S/cm (@ 25 °C)
Display Resolution:	0.01 μ S/cm over full range
Resistivity Range:	0.01 to 18 M Ω -cm (@ 25 °C)
Display Resolution:	0.01 to 14.9 m Ω -cm, 1.0 from 15 to 18.2 M Ω -cm
Conductivity Accuracy [‡] :	2% over Full range (Uncompensated)

Calibration & Validation —

TOC —

Up to Four-Point Calibration:	0 ppb C (blank), 250 ppb C, 500 ppb C, 750 ppb C (all sucrose)
One- to Three-Point Validation:	250 ppb C, 500 ppb C, 750 ppb C (sucrose)
System Suitability:	500 ppb C (sucrose), 500 ppb C (1-4,benzoquinone), Reagent Blank

Conductivity —

One-Point Calibration, Cell Constant:	100 μ S/cm solution
One-Point Validation of Meter:	61.9 K Ω resistor

[†] Repeatability of reading on an individual instrument

[‡] Repeatability of reading from instrument-to-instrument

PHYSICAL SPECIFICATIONS

General —

Installation Category:	II, IEC 1010
Pollution Degree:	2, IEC 664

Anet Network —

Type:	RS-485
Maximum Sensors:	8
Maximum C80 Controllers (any configuration):	8
Maximum Network Length:	1 km (3,000 ft)
Network Cabling:	Shielded Twin-axial, Twist-Lock BNC



Display —

Main:	1-line x 16-character Super-Twist LCD
Backlighting:	Yellow LED
Character Height:	0.163"

Physical —

Operating Temperature:	15 °C to 40 °C (59 °F to 104 °F)
Maximum Relative Humidity:	100% RH (non-condensing)
Maximum Altitude:	4,000 m (13,125 ft)
Size (including sample vessel assembly):	

193 mm H x 489 mm W x 119 mm D
(7.6" H x 19.25" W x 4.7" D)

Weight:	6.58 kg (14.5 lb)
Analysis Cell Volume:	0.4 mL

Power:	100 to 240 VAC ±10%, 50/60 Hz
Power Consumption:	2 Amps max. @ 120 VAC, 1 Amp max. @ 230 VAC
Fuse:	3 Amp, 250 VAC Fast-Blow

Power Cord:	
100 to 120 VAC Main Rating:	125 VAC, 10 Amp Foil Shield 100%, Braid Shield 85% IEC 320-C13 and NEMA 5-15P
Connectors:	
208 to 230 VAC Main Rating:	250 VAC, 10 Amp Foil Shield 100%, Braid Shield 85% IEC 320-C13 and CEE 7/7 or CEI 23-16/VII (or like, depending on country)

I/O Connections —

Analog:	Opto-isolated 4-20 mA output Non-isolated 12 VDC output @ 1/2 Amp max.
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Digital I/O:	Two opto-isolated inputs Two opto-isolated outputs
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Serial Interfaces:	RS485 opto-isolated Network RS232 Data Acquisition RS232 Printer RS232 Diagnostics
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Note: Access 643 specifications are subject to change without notice.