

Access 643P TOC Analysis System Specifications

PERFORMANCE SPECIFICATIONS

TOC Mode —

Operating Range:	1 to 1000 ppb as carbon
Resistivity:	0.2 to 18.2 MΩ-cm
Conductivity:	0.05 to 150 μS/cm (@ 25 °C)
Display Resolution:	1 ppb
Online Repeatability [†] :	± 1% or 1ppb (whichever is greater)
Maximum Input Conductivity:	0.2 μS/cm for all waters 1.0 μS/cm for all neutral waters 5 μS/cm for water with CO ₂ as the sole conductive species
Ambient Operating Temperature:	15 °C to 35 °C (59 °F to 95 °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 FG1002801

Conductivity (Purge) Mode —

Conductivity Mode:	Temperature Compensated to 25 °C or Uncompensated
Conductivity Range:	0.05 to 150 μS/cm (@ 25 °C)
Display Resolution:	0.01 μS/cm over full range
Resistivity Range:	0.01 to 18 MΩ-cm (@ 25 °C)
Display Resolution:	0.01 to 14.9 mΩ-cm, 1.0 from 15 to 18.2 MΩ-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 μS/cm solution
One-Point Validation of Meter:	61.9 KΩ 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: 4-line x 16-character Super-Twist LCD
 Backlighting (adjustable): Yellow LED
 Character Height: 0.163"

Physical —

Operating Temperature: 15 °C to 35 °C (59 °F to 95 °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: 8.85 kg (19.5 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%

Connectors: 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.

Digital I/O: Two opto-isolated inputs
 Two opto-isolated outputs

Serial Interfaces: RS485 opto-isolated Network
 RS232 Data Acquisition
 RS232 Printer
 RS232 Diagnostics

Note: Access 643P specifications are subject to change without notice.