



Air quality monitoring

Thermo Scientific 49iQPS

UV Photometric Primary Standard—calibration of ozone analyzers and transfer standards

The Thermo Scientific™ 49iQ Ozone Primary Standard utilizes UV Photometric technology to reliably produce ozone up to 1000 ppb in concentration.



49iQ Ozone Primary Standard

Introduction

The 49iQ Ozone Primary Standard is a dual cell photometer, the concept adopted by NIST for the national ozone standard. The instrument can accurately generate up to 1000 ppb of ozone operating with ozonator flow rates between 3–4 liters per minute. Because the instrument has both sample and reference flowing simultaneously, a response time of 20 seconds can be achieved. Temperature and pressure correction are standard offerings.

Experience the benefits

- Predictive diagnostics
- Proactive communication
- User-friendly touchscreen display
- Trusted reliability of a Thermo Scientific™ gas analyzer

The iQ Series Gas Analyzer provides a smart environmental monitoring solution designed for reliability, easy operation and proactive maintenance. Get more control over your instrument's performance, costs, workflow and data availability.

Thermo Scientific 49iQ Ozone Primary Standard

Specifications	
Range	50–5000 ppb 100–10000 µg/m ³
Zero noise	0.25 ppb RMS (60 second averaging time)
Detection limit	0.5 ppb (60 second averaging time)
Response time	20 seconds (0–95%)
Precision	±1.0 ppb
Lag time	10 seconds
Linearity	±1% full scale
Flow rate	1.5 LPM
Operating temperature	0 °C - 45 °C
Power requirements	100–240 VAC 50/60 275 watts
Size and weight	16.75" (W) × 8.72" (H) × 24" (D), 34.53 lbs. 425.25 mm (W) × 221.48 mm (H) × 609 mm (D), 15.7 kg
Analog I/O	4 isolated voltage inputs 0–10 V 6 isolated analog voltages outputs, with 4 selectable ranges 6 isolated analog current outputs, with 2 selectable ranges
Digital I/O	16 digital inputs (TTL) 8 solenoid driver outputs 10 digital reed relay contact outputs
Serial ports	1 RS-232/485 port; 1 RS-485 external accessory port
Other ports	3 full-speed USB ports (one in front, two in rear) 1 gigabit ethernet port
Communication	MODBUS, streaming, Gesytec (Bayern-Hessen)
Approvals and certifications	CE, TUV-SUD safety, UL STD 61010-1, CSA STD C22.2 NO. 61010-1, US EPA: EQOA-0880-047, UKCA
Ozonator	
Output	.025–1.000 ppm @ 3-4 LPM
Response	1 minute to 98% or 5 ppb of final value, whichever is greater
Stability	±4 ppb or ±1% of reading, whichever is greater

Maintain your investment and get the most out of your Thermo Scientific™ products. Our comprehensive, flexible support solutions provide immediate access to experts worldwide and priority status when your air quality equipment needs repair or replacement.

Your order code:
49iQ Ozone Primary Standard



Learn more at thermofisher.com/49iQ and
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Ordering information

49iQ Ozone Primary Standard
Choose from the following configurations options to customize your 49iQPS
Power cord
A = 100–120 VAC 50/60 Hz (NA)
B = 220 VAC 50/60 Hz (EU)
C = 220 VAC 50/60 Hz (CHN)
Communications
N = No I/O
A = Serial RS232/RS485
B = Analog and digital
C = Serial, analog and digital
Zero air source
NN = No zero air source
NA = Zero air source

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