

Series 1200 Trace N_2 in Ar Analyzer

Nitrogen impurity measurement made fast, simple, reliable, and accurate



Features

- Guaranteed 10 ppb sensitivity
- Measuring system based on spectral emission of argon plasma
- Exceptional detector performance by utilizing patented electro-optical modulation
- On-line continuous trending
- Fast response...Fast recovery
- 4-20 mA output
- · Dry contacts for over range indication
- Dry contacts for range selection indication
- · No valves, columns, or carrier gas
- · No radioactive source
- No sensor or detector to replace
- Maintenance free
- 19" Rack Mount or Bench Top
- Available in three configurations
 - 0-10/0-100 parts per million (ppm)
 - 0-2/0-20 ppm
 - 0-20/0-200 ppm

Practical Applications

- · Air separation plants
- Argon purification plants
- Cryogenic truck loading stations
- Specialty gas laboratories
- · Process control
- New line certification
- Cryogenic steel manufacturing
- Chemical plants
- Gas management/monitoring systems
- Quality control for truck fills & gas cylinders
- · Welding gas management
- Semiconductor manufacturing

Specifications — Series 1200 Trace Nitrogen in Argon Analyzer

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Measurement Ranges	$\begin{array}{c} 0 - 2 \text{ ppm N}_2 \text{ in Argon} \\ 0 - 10 \text{ ppm N}_2 \text{ in Argon} \\ 0 - 20 \text{ ppm N}_2 \text{ in Argon} \\ 0 - 100 \text{ ppm N}_2 \text{ in Argon} \\ 0 - 100 \text{ ppm N}_2 \text{ in Argon} \\ 0 - 200 \text{ ppm N}_2 \text{ in Argon} \end{array}$
Accuracy	$\begin{array}{l} \pm0.020\;\mathrm{ppm}\;\mathrm{N_2}\;\mathrm{in}\;\mathrm{Argon}\;\mathrm{on}\;0.2\;\mathrm{ppm}\;\mathrm{range}\\ \pm0.125\;\mathrm{ppm}\;\mathrm{N_2}\;\mathrm{in}\;\mathrm{Argon}\;\mathrm{on}\;0.10\;\mathrm{ppm}\;\mathrm{range}\\ \pm0.250\;\mathrm{ppm}\;\mathrm{N_2}\;\mathrm{in}\;\mathrm{Argon}\;\mathrm{on}\;0.20\;\mathrm{ppm}\;\mathrm{range}\\ \pm1.250\;\mathrm{ppm}\;\mathrm{N_2}\;\mathrm{in}\;\mathrm{Argon}\;\mathrm{on}\;0.100\;\mathrm{ppm}\;\mathrm{range}\\ \pm2.500\;\mathrm{ppm}\;\mathrm{N_2}\;\mathrm{in}\;\mathrm{Argon}\;\mathrm{on}\;0.200\;\mathrm{ppm}\;\mathrm{range}\\ \end{array}$
Response Time	90% of full scale: 11 seconds 95% of full scale: 13 seconds
Sample Flow Required	2 scfh (0.88 slpm)
Sample Conditions	1/4" VCR® sample inlet 1/4" Swagelok® vent
Recommended Calibration Gases	For 0-2 ppm range: zero gas:UHP Argon (99.999%) w/ GOW-MAC Model 75-800-2-AR Noble Gas Purifier span gas:1.60-2 ppm $\rm N_2$ in Ar
	For 0-10 ppm range: zero gas:UHP Argon (99.999%) w/ GOW-MAC Model 75-800-2-AR Noble Gas Purifier span gas:8-10 ppm $\rm N_2$ in Ar
	For 0-20 ppm range: zero gas:UHP Argon (99.999%) w/ GOW-MAC Model 75-800-2-AR Noble Gas Purifier span gas: 16-20 ppm $\rm N_2$ in Ar
	For 0-100 ppm range: zero gas: UHP Argon (99.999%) w/ GOW-MAC Model 75-800-2-AR Noble Gas Purifier span gas:80-100 ppm $\rm N_2$ in Ar
	For 0-200 ppm range: zero gas:UHP Argon (99.999%) w/ GOW-MAC Model 75-800-2-AR Noble Gas Purifier span gas:160-200 ppm $\rm N_2$ in Ar
Ambient Temperature Limits	60 - 95 °F (16 -35 °C)
Maximum Operating Pressures	10 psig at sample inlet 6 psig on analytical cell
Nominal Sample Inlet Pressure	2- 7 psig
Display	LED Digital
Output	4 - 20 mA Dry contacts for range selection indication Dry contacts for over range indication
Detector Type	Spectroscopic emission
Sensitivity	$\begin{array}{l} \pm0.01\;{\rm ppm}\;{\rm N_2}\;{\rm in}\;{\rm Ar}\;({\rm Series}\;1200\text{-A}/1202\text{-A})\\ \pm0.10\;{\rm ppm}\;{\rm N_2}\;{\rm in}\;{\rm Ar}\;({\rm Series}\;1200\text{-B}/1202\text{-B})\\ \pm0.05\;{\rm ppm}\;{\rm N_2}\;{\rm in}\;{\rm Ar}\;({\rm Series}\;1200\text{-C}/1202\text{-C}) \end{array}$
Power	~ 100 W, 115/230 VAC, 50/60 Hz
Dimensions	5.25" H x 16.625" W x 14.625" D (13.34 x 42.23 x 37.15 cm)
Weight	25 lbs (11.3 kg)

Specifications and features will vary depending upon system configuration and are subject to change without notice. The above specifications are established during design, but are not to be construed as test criteria for every product.

Ordering Information

Series 1200-A.....0-2/0-20 ppm Range, 115 V Series 1200-C......0-10/0-100 ppm Range, 115 V Series 1202-A.....0-2/0-20 ppm Range, 230 V Series 1202-C..... 0-10/0-100 ppm Range, 230 V

Series 1200-B0-20/0-200 ppm Range, 115 V Series 1202-B0-20/0-200 ppm Range, 230 V



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