

NOVA

Dependable Gas Analysis Solutions



340 Series PORTABLE ANALYZER FOR OXYGEN & HYDROGEN

APPLICATIONS

Analysis of oxygen/hydrogen (O_2/H_2) in exothermic furnace atmospheres for copper, brass, or steel annealing, neutral heating, sintering, glass metal beds, or oxide coating of steel.

FEATURES

- Rugged design that is easy to operate and maintain
- Fast warm-up and response
- Long life electrochemical O_2 sensor easily detects air infiltration into furnace gas
- Long-life thermal conductivity cell that provides accurate & stable readings of H_2
- Separate digital meters with backlight
- Rechargeable battery operation
- Built-in sample pump, filter, & flow meter
- Weatherproof (WP) cabinet with clear Lexan cover

OPTIONS

- Recorder outputs of 0-1 VDC or 4-20 mA
- Sample pre-cooler for hot samples
- Condensate removal for wet applications
- Suitcase (K) style cabinet Available
- O_2 & H_2 alarms with LED
- Detachable/portable data logger
- Dual range O_2 (0-25.0% & 0-2.00%) (Model 341WP)
- Special PPM O_2 sensor (100 to 9,999 PPM) (Model 340L)

CALIBRATION

- On air for H_2 zero and % O_2 span
- On analyzed mixture of % H_2 in N_2 for H_2 span and O_2 zero
- On analyzed mixture of PPM O_2 in N_2 for PPM O_2 span



340WP - Weatherproof
Enclosure



341K - Suitcase
Enclosure



Optional Precooler
for hot or wet
sample gases

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 340 Series Portable Analyzer has been designed for the dual measurement of O₂ and H₂ in furnace atmosphere gases. A built-in sample pump draws in a sample of atmosphere gas where it is detected for oxygen by a long-life oxygen sensor. At the same time, H₂ is detected by a long-life thermal conductivity cell.

The Model 341 is a dual range O₂ version that can be switched between the standard range (0-25.0%) and a lower range (0-2.0%) using the same sensor. For applications requiring a PPM O₂ measurement, a special low range version is available (Model 340L). The Models 340 & 341 have rechargeable battery operation, a flow meter, filter, sample hose, and dual digital readouts. A recharger is included. Recorder outputs of 4-20mA or 0-1VDC are optional.

MODELS

- 340WP - % O₂ / % H₂ (WP - weather-proof)
- 340L(K or BT - bench top) - % H₂ & PPM O₂ version
(340L not available in WP enclosure)
- 341(K or WP) - % H₂ & Dual Range O₂
- 340K - % O₂ / % H₂; (K - suitcase-style)

SPECIFICATIONS

Nova reserves the right to specification changes which may occur with advances in design without prior notice.

Description	
Method of Detection:	Long-life electrochemical O ₂ sensor, temperature-compensated thermal conductivity (T/C) H ₂ cell, cannot be burned out due to loss of flow or changing gases
Ranges Available:	0-25.0% O ₂ , 0-40.0% H ₂ (Model 340) 0-2.0% and 0-25.0% O ₂ , 0-40.0% H ₂ (Model 341) 0-100 to 0-9,999 PPM O ₂ , 0-40% H ₂ (Model 340L)
Resolution:	0.1 % on % ranges; 1 PPM on PPM O ₂ range
Accuracy and Repeatability:	± 2% of full scale for O ₂ & H ₂
Drift:	± 1% of full scale per day
Response Time (T-90):	Less than 10 seconds to 90% step change
Ambient Temperature Range:	55° to 120°F (12° to 50°C)
Linearity:	± 2% of full scale
Size and Weight:	WP style - approx. 11½" L x 8" W x 7¼" H @ 8 lbs (29 x 20 x 18 cm @ 3.6 kg) K style - approx. 14" L x 10½" W x 6" H @ 8 lbs (36 x 27 x 15 cm @ 3.6 kg)
Power:	115VAC 60Hz for recharging (220VAC 50Hz available)
Output Options:	4-20 mA or 0-1 VDC
Alarms:	O ₂ and H ₂ alarms with LED (optional)

UNIQUE APPLICATIONS

All Nova analyzers are built using proven technologies and techniques. If this product does not suit your application, please contact Nova at 1-800-295-3771. In many cases, we are able to build an analyzer specific to your needs.



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