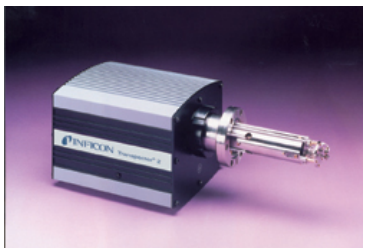
Transpector 2 Gas Analysis System

Superior Sensitivity for Contamination Control

The Transpector® Gas Analysis System is an RGA that provides accurate and reliable data for vacuum process monitoring, process diagnostics, and leak detection in semiconductor manufacturing. In the Transpector 2, increased hydrogen sensitivity makes contaminants visible at sub-ppm levels, and four times faster scanning over low level signals with an expanded dynamic range provides cleaner data at lower detectable partial pressures.



FEATURES

- 100-,200-, and 300-amu systems with Faraday cup or cobination electron multiplier/Faraday cup
- improved hydrogen detection
- superior peak amplitude and position stability
- up to 10 times improvement in signal to noise ratio compared to original Transpector
- faster scanning over low-level signals
- nine-decade electronic dynamic range
- software options for single and multi-chamber systems
- partial pressure measurement from 1 X 10 -4 Torr to 5 X 10 -15 Torr

SPECIFICATIONS

Type	C100F	C100M	H100F	H100M	H200F	H200M
Mass Range	1-100	1-100	1-100	1-100	1-200	1-200
Sensor length (vacuum side)	4.6 (11.7)	4.6 (11.7)	7 (17.8)	10.4 (26.4)	7 (17.8)	10 (26.4)
Detector Type	FC					
Resolution (per 1993 AVS Recommended Practice)	< 1 amu wide @ 10% peak height over the entire mass range					
Temperature Coefficient (during an 8-hour period, after a half hour warm-up)	< 1% of peak height per degree C (for FC Only)					
Sensitivity						
EM	N/A					
FC	$2x10^{-4}$ ($1.5x10^{-4}$)					
Min. Detectable Partial Pressure						
EM	N/A					
FC	3x10^-13 (4x10^-13)					
Zero Blast Interference at Mass 2	< 100					
Max. Operating Pressure	5x10^-4 (6.6x10^-4)					
Max. Sensor Operating Temp.						
FC	200					
EM	N/A					
Max. Bakeout Temperature (electronics removed)	200					
Operating Temperature	20-50 ambient					

SPECIFICATIONS

Type	H300F	H300M
Mass Range	1-300	1-300
Sensor length (vacuum side)	7 (17.8)	10.4 (26.4)
Detector Type		
Resolution (per 1993 AVS Recommended Practice)		
Temperature Coefficient (during an 8-hour period, after a half hour warm-up)		
Sensitivity		
EM		
FC		
Min. Detectable Partial Pressure		
EM		
FC		
Zero Blast Interference at Mass 2		
Max. Operating Pressure		
Max. Sensor Operating Temp.		
FC		
EM		
Max. Bakeout Temperature (electronics removed)		
Operating Temperature		

SPECIFICATIONS

Type	C100F	C100M	H100F	H100M	H200F	H200M
Power Input	20 to 30 V DC, 9-pin male “D” connector, internally isolated from system ground					
RS232 Serial Communications Interface	nonisolated, baud selection 1200 through 9600, 9-pin female “D” connector, TxD, RxD, CTS, DTR					
RS485 Addressable Communications Interface	isolated, 4 wire, 57,600 baud fixed, half duplex, global address @ 0, fixed address 1 of 31, 9-pin female “D” connector, +TxD, -TxD, +RxD, -RxD					
Relay Outputs	4 relays, 24 V at 0.5 amps (1 for operational status, 3 for setpoint limits)					

SPECIFICATIONS

Type	H300F	H300M
Power Input		
RS232 Serial Communications Interface		
RS485 Addressable Communications Interface		
Relay Outputs		

SPECIFICATIONS

Type	C100F	C100M	H100F	H100M	H200F	H200M
Inputs	2 nonisolated TTL inputs, contact closure (1 for remote emission on, 1 for remote emission off); 2 differential analog inputs, 0 to 10 V DC					
Electronics Enclosure	drip-resistant					
User-Configured Switches (8-position DIP switch)	5 positions: device address (1 of 31); Primary Link Select (RS232/485); 2 positions: baud rate					
LED Indicators (green)	1 for CPU status, 1 for emission status					

SPECIFICATIONS

Type	H300F	H300M
Inputs		
Electronics Enclosure		
User-Configured Switches (8-position DIP switch)		
LED Indicators (green)		

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