

MS-50 Dry HS

Automated High Production Console Leak Detector with Oil Free Pumps and High Sensitivity Features

Sensitivity: 3.0×10^{-12} atm-cc/sec
– highest in the industry

Leak range: 3.0×10^{-12} to 1
atm-cc/sec – widest range
available in the industry

Oil-free pumping ideal for use
in clean-rooms and other
environments where
contamination is a concern

Dual pump system – dedicated
Dry Foreline and Dry Roughing
Pumps

Direct flow vacuum operation
response time <2 sec

Built-in diagnostics for trouble-
free maintenance

Simple one-button power up
has system ready to test in less
than 3-minutes

Fully automatic startup, tuning
and calibration

High inlet pressure of 7.5 Torr
provides fast time to test

Three flow modes provide
flexibility and maximum
productivity for application-
specific leak testing

Resolution of 14 at mass 4 is
twice the industry average

www.vicleakdetection.com



The MS-50 is available in various configurations designed to meet your specific leak testing requirements.



Vacuum Instrument Corporation

2099 Ninth Avenue • Ronkonkoma, NY 11779 • T 631 737 0900 • F 631 737 1541 • sales@vicleakdetection.com



MS-50 DRY HS PERFORMANCE SPECIFICATIONS

Characteristics	Units	MS-50	MS-50 Dry	MS-50 Dry HS
Sensitivity, vacuum *	atm cc/sec	3.0×10^{-11}		3.0×10^{-12}
Sensitivity, sniffing		1.0×10^{-08}		
Leak Measurement Range		3.0×10^{-11} to 10		3.0×10^{-12} to 1.0×10^{-5}
Leak Ranging	-	Auto/Manual		
Start-up Time	minutes	<3		
Response Time *	seconds	<2 direct, <2.5 reverse		<2
Resolution *	-	14 at mass 4		
Gross Test, Time (with UFT Option)	seconds	3 (100 mTorr)		
Fine Test, Time (with UFT Option)	seconds	10 (25 mTorr, 10^{-10} atm-cc/sec)		
Mass Spectrometer Tube	-	180° deflection, dual magnetic sector		
Auto-tuning	-	Yes		
Auto-calibration	-	Internal: Yes / External: Manual		
Auto-zeroing	-	Yes		
Reject Set-point	-	Yes		
Built-in Calibrated Leak	-	Yes; 10^{-08} range		Yes; 10^{-09} range
NIST Traceable	-	Yes		
Temperature Compensated	-	Yes		
Scan / Descan	-	Yes		
Filaments	-	2 Tungsten		
Max Operating Pressure	Torr	7.5 fine; 100 gross		0.200
Display	inches (cm)	15 (38.1) LCD flat panel display		
Units	-	cc/second, mbar*/l/second, Pa*M ³ /second		
I/O	-	0~5V chart, parallel printer		
Printer Port	-	Yes		
RS-232C	-	Yes		
Software	-	50 programmable test recipes		
Vacuum System				
Vacuum Mode	-	Direct, reverse or combination		Direct
Roughing Pump	cfm	16 direct drive	10 scroll pump	
Foreline Pump	-	7 direct drive	5 dual stage diaphragm/molecular drag	
High Vacuum Pump	liters/second	61 turbo		
Vacuum Gauging	-	Pirani: Test Port and Foreline / Ion: High Vacuum		
Cold Trap	-	N/A	N/A	Optional
Physical				
Dimensions (W x H x D)	inches (cm)	25.75 x 30.625 x 35.25 (65.40 x 77.79 x 89.54)		
Test Cup, UFT Option (Ø x D)	inches (cm)	4.5 x 1.0 (11.4 x 2.5)		
Test Port Connection	inches	1.125		
Weight	lbs. (kg)	475 (215.45)		
Electrical				
Power	V/Hz/A	115/50-60/30; 230-240/50-60/15; 100/50-60/30		

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* Performance determined in accordance with American Vacuum Society Standards; Specifications subject to change without notice.

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