

## os5500 Displacement Gage Test Summary

The os5500 long range displacement gage provides the user with accurate and long term position measurements for monitoring movement for both static and dynamic applications. The gage is offered in three displacement ranges: 0 - 150mm, 0 -300mm, and 0 – 450mm. To insure long term reliable measurements, this gage has been subjected to harsh environmental, fatigue, repeatability, and other testing. The following is a summary of the tests and results that insure the long term reliability of the gage.



## Environmental Tests:

Temperature cycle 3 gages: F00101, F00102a, F00105 Temperature range: -40C to +80C Number of cycles: 500 cycles (400 shown) Instrument: Micron Optics sm125 serial number SIAB8T Chamber: ESPEC model PL-1FPH, serial number 12005885 Displacement Error: 2mm for 450mm gage due to temperature Test start date: May 7, 2013 Test end date: August 19, 2013 Humidity Soak 3 gages: F00103, F00106, F00107 Time: 1000 hours Temperature: 75C Humidity: 75% RH Instrument: Micron Optics sm125, serial

number SIA886 Chamber ESPEC – Model LHU-113, serial number 1012000693 Displacement Error: <2mm Test Start date: June 6, 2013 Test end date: July 17, 2013



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Long Term Outdoor Environmental Test 3 gages from left to right: F00110, F00108, F00109

Test Start Date: 8/28/2013

MICRON

Data thru: 6/25/14

Instrument: Micron Optics sm125 serial, number SIA43E Location: Atlanta, GA

Step Change indicates change in cable position on Feb. 5,

2014





Fatigue TestGage: F00109Fatigue Tester: Micron Optics designed (dwg<br/>#DQS101222), max stroke 50mmInstrument: Micron Optics sm130, 1 kHz, serial<br/>number SIA9AYRecorded 2 second data burst hourly. Data plotted<br/>at 3 day intervalsTest Start Date: 5/21/13Test End Date: 6/24/13





<u>Gage Repeatability</u> Gage F00108, 450mm range Test Fixture: Micron Optics Calibration Test Set, Drawing #DQ\$130328 Micron Specification: .05% of full scale