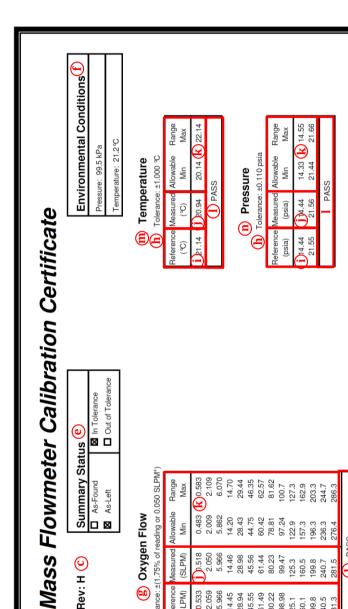
# TSI MASS FLOWMET CALIBRATION CERTIFICA

APPLICATION NOTE FLOW-009 (A4)



D Tolerance: ±(1.75% of reading or 0.050 SLPM\*) (D) Tolerance: ±(1.75% of reading or 0.050 SLPM\*)

B Air Flow

Measured Allowable Range

Oxygen Flow

Measured Allowable Range

Σ

(SLPM)

(SLPM)

Мах

Min

(SLPM)

0.518

**K** 0.612 2.105 6.109

0.548 5.992

2.005

2.042 14.47 44.72

■ As-Found

Rev: H ©

40401640001 (b)

Serial Number:

4040 (a)

Verification date: 29-Sep-2016 (d)

X As-Left

2.109 6.070 14.70

46.35 81.62

100.7

80.23

196.3 236.3 157.3

> 199.8 240.7

127.3 162.9 203.7

98.29 60.49

100.0

122.9 157.3 196.7 235.8

240.5

244.2

240.0 160.4

PASS

PASS

Internal Calibra	Internal Calibration Reference(s)	(s) <u>(</u>
Measurement Type	Reference (FC1)	Due for Calibration
Flow	E005063	18-Oct-2016
Pressure	E005064	18-Oct-2016
Temperature	E005065	18-Oct-2016

Verified by:

55126 Shoreview USA 500 Cardigan Rd **6** 

TSI Inc.

Printed 30-Sep-2016 13:23, Ver 3.5.0.0

\*Tolerance specified: whichever is greater

TSI does hereby certify that this flowmeter has been calibrated using TSI procedure 10000021269. The calibration of the reference standards maintain national laboratory tracability to National Institute of Standards & Technology (NIST).



#### (a) Model

The model number of the unit under test.

## (b) Serial Number

The serial number of the unit under test.

#### (c) Revision

The hardware revision level of the unit under test.

# (d) Verification Date

The date the verification data printed on the Calibration Certificate was taken.

# (e) Summary Status

The results of the test data shown on the Calibration Certificate.

#### a. As-Found vs. As-Left

Indicates what stage of the calibration process the data on the Calibration Certificate references to.

## b. In Tolerance vs. Out of Tolerance

Indicates if the unit under test was found to be In Tolerance or Pass the calibration test process or Out of Tolerance or Fail the calibration test process.

## (f) Environmental Conditions

The recorded environmental conditions from the calibrator at the time of the test.

# (g) Gas

The gas used while collecting the verification data for the table listed below.

## (h) Tolerance

The allowable variability between the Actual and Measured data that results in a passing test.

# (i) Reference

This column is the actual flow rate indicated by the flow reference in SLPM.

## (j) Measured

This column is the flow rate measured by the unit under test in SLPM.

## (k) Allowable Range

This column shows the Min and Max values that the measured flow can fall between in order to achieve a passing test.

#### a. Min

The minimum measured flow value that results in a passing test.

#### b. Max

The maximum measured flow value that results in a passing test.

## (l) Pass or Fail

Shows if the result of the calibration test for the gas designated at the top of that column was a Pass or Fail.

## (m) Temperature

This column is the temperature received from the thermistor located within the unit under test.

## (n) Pressure

This column is the absolute pressure received from the absolute pressure sensor located within the unit under test.

# (o) Internal Calibration References

Displays the calibration references that TSI used during the verification testing of the unit under test.

## a. Measurement Type

Refers to the parameter being tested by the internal calibration reference.

#### b. Reference

Refers to the TSI internal calibration reference.

## c. Due for Calibration

Shows the date that the TSI internal calibration reference is due for calibration.

## (p) Shipping Address

The TSI Inc. shipping address.

## (q) Print Date

The date the certificate was printed.

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 USA
 Tel: +1 800 874 2811
 India
 Tel: +91 80 67877200

 UK
 Tel: +44 149 4 459200
 China
 Tel: +86 10 8219 7688

 France
 Tel: +33 1 41 19 21 99
 Singapore
 Tel: +65 6595 6388

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