

NOTES:

1.0 INPUT REQUIREMENTS

- 1.1 THIS UNIT IS DESIGNED TO MEASURE A MAXIMUM MASS AIRFLOW RATE OF 260 G/SEC.
- 1.2 THIS UNIT IS TO BE MOUNTED IN LINE WITH ENGINE AIR INDUCTION SYSTEM DOWN STREAM OF AIR CLEANER ASSEMBLY.
- 1.3 THE FLOW SHALL BE IN THE DIRECTION AS SHOWN AND SHALL ENTER THE TUBE WITH A SYMMETRICALLY DISTRIBUTED VELOCITY PROFILE.
- 1.4 IGNITION VOLTAGE APPLIED SHALL BE BETWEEN 11 AND 16 VOLTS. THE SENSOR SHALL NOT DRAW MORE THAN 1.4 AMPS AT 13.8 VOLTS APPLIED.

2.0 DESIGN PERFORMANCE REQUIREMENTS

- 2.1 WITH A 1.0 $\Omega$  LOAD RESISTOR FROM TERMINAL B TO A 5V SUPPLY, THE VOLTAGE ON TERMINAL B SHALL SWITCH FROM LESS THAN 0.5 VOLTS TO GREATER THAN 4.5 VOLTS AT A FREQUENCY INDICATED IN THE CHART SHOWN IN 2.2 BELOW. (F)
- 2.2 THE FREQUENCY RANGE GENERATED BY A GIVEN UNIT AT 20°C  $\pm$  5°C, RELATIVE HUMIDITY OF 50%  $\pm$  10% AND IGNITION VOLTAGE OF 14.0V  $\pm$  0.2V AND USING TEST SET UP PER ES-1670, FIG. 5, IS AS FOLLOWS:

(C) POTTED DATA

FLOW G/SEC.	FREQUENCY RANGE (HZ)
1 260.0	135.26 ~ 139.78 HZ
2 150.0	116.64 ~ 119.16 HZ
3 20.0	57.09 ~ 58.77 HZ
4 5.0	38.77 ~ 39.63 HZ

2.3 THIS UNIT MUST CONFORM TO ES-1670

2.4 THE LEAKAGE RATE SHALL NOT EXCEED 60cc/hr AT 6.5 R/P (H)

3.0 OUTPUT CHARACTERISTICS

3.1 THE NOMINAL FREQUENCY GENERATED BY A GIVEN UNIT AT 20°C  $\pm$  5°C, RELATIVE HUMIDITY OF 50%  $\pm$  10% AND IGNITION VOLTAGE OF 14.0V  $\pm$  0.2V AND USING TEST SET UP PER ES-1670, FIG. 5, IS AS FOLLOWS:

(C) POTTED DATA

	FLOW G/SEC.	FREQUENCY (HZ)
1	260.0	137.02
2	240.0	133.84
3	220.0	130.71
4	200.0	127.36
5	180.0	123.78
6	160.0	119.91
7	150.0	117.90
8	140.0	115.73
9	120.0	111.01
10	100.0	105.61
11	80.0	99.25
12	60.0	90.89
13	50.0	85.37
14	40.0	78.27
15	30.0	69.07
16	20.0	57.93
17	15.0	52.70
18	10.0	47.13
19	7.5	43.73
20	5.0	39.20
21	3.5	35.60
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