

### INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

#### MATERIALS MANAGEMENT DIVISION

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# Technical Specification Mass flow controller and Controlled Evaporation mixing unit

## A) Technical Specifications (Mass flow controller):

- 1. Measurement technique: Coriolis type.
- 2. Flow range: "82.04- 4102 g/h".
- 3. Fuel: n-dodecane  $(C_{10}H_{22})$

4. Should be able to operate with an inlet pressure of 15 bar and an outlet pressure of 10 bar.

- 5. Should be able to operate for temperatures up to 50  $^\circ$ C.
- 6. Accuracy: +/- 0.2%.
- 7. Operation voltage: 15-24 VDc, 50 Hz.

8. Latest upgraded Licensed Software should be provided to be installed on required computer specifications on Windows 10 operating platform.

### 9. Other Requirements:

- i. Installation manual to be provided.
- ii. Service support record: The supplier should have installed and maintained similar systems in India since last five years.
- iii. Provide the technical specification compliance table with values.

### 10. General Description:

- i. System should provide low flow rates at high pressure conditions.
- ii. Operative with other liquids with similar viscosity and density.

## B) <u>Technical specifications (Controlled evaporation mixing)</u>:

- 1. Measurement technique: Coriolis type
- 2. Fluid: n-heptane  $(C_7H_{16})$

3. Cori flow meter range: 3-150 ml/h with accuracy  $\pm$  0.2%

- 4. Mass flow controller: 200-10000 ml/h with accuracy ± 0.5%
- 5. Liquid delivery system with vapour control: 3-150ml/h
- 5. Operating inlet pressure: 6 bar
- 6. Operating temperature: 300 K
- 7. Operation voltage: 15-24 VDc, 50 Hz.

8. Latest upgraded Licensed Software should be provided to be installed on required computer specifications on Windows 10 operating platform.

### 9. Other Requirements:

- i. Installation manual to be provided.
- ii. Service support record: The supplier should have installed and maintained similar systems in India since last five years.
- iii. Provide the technical specification compliance table with values.