

# CORRIGENUDM – 1

## Department of Aerospace Engineering

### Extension of bid submission date:

The due date for the submission of bids has been extended to 11/03/2021 @ 3 PM & the technical bid opening is 11/03/2021 @ 4 PM.

### Changes in technical specification:

#### Coriolis Flow Meter for sCO<sub>2</sub>

The flow meter is expected to measure flow rate of high pressure (~ 200 bar) super critical CO<sub>2</sub> fluid. The unit shall be capable of measuring up to 0.05 kg/s of maximum flow of liquid CO<sub>2</sub>. The unit shall be able to interface with the controlling device to be able to precisely control flow. The unit shall be able to withstand the maximum operating temperature of 100<sup>0</sup> C. The unit shall comply with ASME standards of high pressure piping requirements.

Detailed technical specifications for the requirements are listed below.

#### Operational Specifications

<u>S.No.</u>	<u>Description</u>	
1.	Nominal Mass flow	0 – 0.05 kg/s or 0 to 180 kg/h
2.	Maximum Pressure in the Line	200 bar
3.	Maximum Temp (C)	100 <sup>0</sup> C
4.	Communication	RS232/RS485
5.	Mode of Operation	Continuous
6.	Type of Fluid	sCO <sub>2</sub> in liquid state
7.	Data Transmission	Milliamp / digital outputs
8.	Mass Flow Accuracy	Shall not exceed $\pm 0.1$ % of max flow
9.	Temperature Accuracy	$\pm 1^{\circ}$ C

#### Mechanical Specifications

<u>S.No.</u>	<u>Description</u>	
1.	Nominal Inlet Diameter	BSP 1" inch
2.	Nominal Outlet Diameter	BSP 1" inch
3.	Material Make	316L stainless steel

#### Electrical Specifications

<u>S.No.</u>	<u>Description</u>	
1.	Voltage	3 Phase – 220- 240 V
2.	Current	10 - 15 A
3.	Frequency	50 – 60 Hz

### **Additional Specifications**

<b><u>S.No.</u></b>	<b><u>Description</u></b>	
1.	Display	Input digital display
2.	Current	10 - 15 A
3.	Frequency	50 - 60 Hz