

## GOVERNMENT COLLEGE OF ENGINEERING KARAD VIDYANAGAR, KARAD, 415124 DISTRICT: SATARA

(An Autonomous Institute of Government of Maharashtra) Phone – (02164) 271711, 271712 Fax No. – (02164) 271713 Website: <u>www.gcekarad.ac.in</u> Email: principal@gcekarad.ac.in

No. CEK/ CED/ FM Lab./2019-20/802

Date: 1 7 FEB 2020

To,

## Subject - Quotation for Ultrasonic Flow Meter

Dear Sir.

With reference to above subject, I request you to kindly quote your rates for below mentioned material for FLUID MECHANICS LABORATORY of CIVIL ENGINEERING DEPARTMENT of this Institute so as to reach institute office within Friday, 06/03/2020 up to 05.00 PM.

The details are as given below -

Sr. No.	Particulars	Quantity Required
1	Ultrasonic Flow Meter	Required
	<b>Measuring principle:</b> Hybrid, user selectable ultrasonic Doppler or transit time via pipe mounted transducers.	
	Condition of flow: Full pipe within the minimum and maximum velocity specifications.  Liquid types: Virtually any acoustically conductive fluid	
	Transit time mode: from 0% to 10% (0 to 100,000 ppm) particulate.	
	<b>Doppler mode:</b> from 0.02% to 15% (200 to 150,000 ppm) of 50 micron particulate. <b>Nominal pipe sizes:</b> 0.5 inch - 100 inch (12.7mm to 2540 mm)	
	Pipe materials: Most metal and plastic pipes; Pipe liner materials: Most plastic liners.	
	Liquid velocity range: 0 m/s to 9.144 m/s; Flow Sensitivity: 0.0003048 m/s	
	Accuracy at pipe inside diameter:	
	Flow rate averaging time (5.0s):	
	$\pm$ 1% of rate > 2.4384 m/s and $\pm$ 0.018288 m/s < 2.4384 m/s (Transit Time ½" to 1")	0.4
	$\pm$ 1% of rate >0.3048 m/s and $\pm$ 0.003048 m/s < 0.3048 m/s (Transit Time 1-1/4" to 12")	01
	Flow rate averaging time (1.0s):	
	$\pm$ 1% of rate >3.6576 m/s and $\pm$ 0.036576 m/s < 3.6576 m/s (Transit Time ½" to 1")	
	$\pm$ 1% of rate >1.524 m/s and $\pm$ 0.01524 m/s < 1.524 m/s (Transit Time 1-1/4" to 12")	
	Flow rate averaging time (0.5s):	
	$\pm$ 2% of rate >3.6576 m/s and $\pm$ 0.0762 m/s < 3.6576 m/s (Transit Time ½" to 1")	
	$\pm$ 2% of rate >3.6576 m/s and $\pm$ 0.0762 m/s < 3.6576 m/s (Transit Time 1-1/4" to 12")	
	Instrument should be provide with data logger system that will be able to log a data for at least a day and a	
	port through which the logged data can be transferred to computer systems, along with a 16 m cable for 2	
	transducers independently with proper clamping arrangement for transducer	
	It should comprise of a built in battery and a stand by battery with power back 12 hours for each battery.	
	It should be provided with hard case to stock and port the instrument and accessories.	
	A manual in English language is to be provided along with instrument.	

Your quotation should be valid for at least 60 days from the date of opening. The quotation should be sent to "The Principal, Government College of Engineering, Karad" in sealed envelope superscripted with "Ultrasonic Flow Meter for Fluid Mechanics Laboratory of Civil Engineering Department" due on Friday, 06/03/2020. The Institute does not bind itself to accept or reject the quotation. Please note that if there is any over-writing in the quotation, the said term will not be taken into consideration.

The quotation will be opened on Saturday, 07/03/2020 at 11.00 a.m. in Civil Engineering Department (Head's Cabin)

Thanking you.



Govt. College of Engineering, Karad – 415 124