



Ultrasonic Concentration Meter

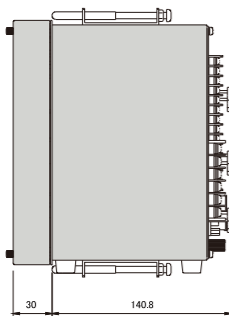
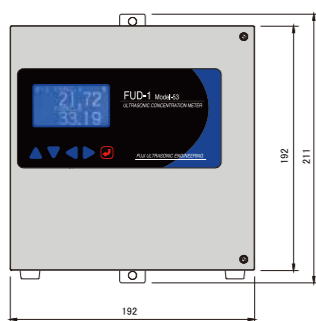
FUD-1

Model-53
Model-63 (Explosion proof)

Specifications		
Model name	FUD-1 Model-53 FUD-1 Model-63 (explosion proof model)	
Measurement parameters	Ultrasonic propagation speed Temperature Conductivity	
Display	LCD(Conc. 1 Conc. 2 Temp. Velocity / Various parameters)	
Output	Analog DC 4-20mA (2 lines : adjustable for conc. values) Digital RS232C (Conc. 1 Conc. 2 Temp. Velocity Conductivity Error code) Alarm High & Low (2 lines) Error	
Power	AC100 to 240V 50/60Hz 30VA	
Transmitter	Panel mount type (DIN size)	
Environment	0 to 50 Celsius RH85% or less	
Fluid temperature	0 to 100 Celsius (Optional -10 to 160 Celsius : 100 Celsius span)	
Function	Output setting, Alarm output setting, Average setting Offset and Gain setting, Self-diagnosis check Auto error cancelation setting, Fail safe mode setting	
Option	RS485 output (Alternative choice with RS232C) Temperature output (DC4 to 20mA)	
Channel	Maximum 7 Ch	
Cable	10m (standard) Repeater required for over 10m Max. 300m	
Explosion proof	Repeater	Exd [ia] IIBT4
	Transducer	Ex [ia] IICT4
Transducer material	SUS316(L) SUS304(L) PFA coating Hastelloy Titanium Nickel Tantalum PFA PTFE PVC PVDF etc	

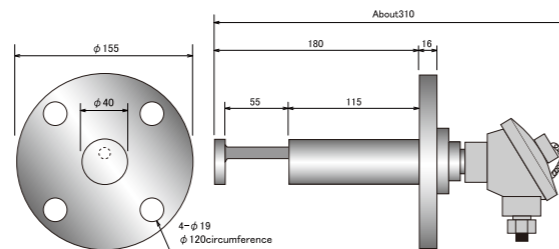
Transmitter

Panel mount type Weight 3kg approx.



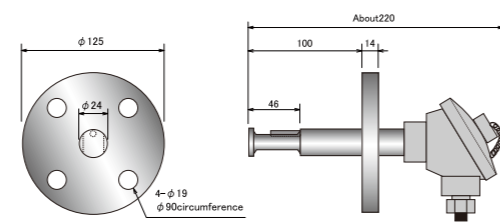
Transducer

Flange JIS 10K 50A Weight 3.5kg approx.



The above flange size refers to JIS V2210 10K 50A FF.

Flange JIS 10K 25A Weight 1.5kg approx.



The above flange size refers to JIS V2210 10K 50A FF.

*The other sizes are available.



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FUJI ULTRASONIC ENGINEERING CO.,LTD.





Ternary type

Ultrasonic Concentration Meter

FUD-1 series

We strive to be flexible, reliable & honest for the customer needs based on our over 40 years sales experience.
Available for variety applications such as acid, alkali, and organic fluids with minimum effort for installation and operation

Measuring two concentrations in real time

FUD-1 Model-53



Transmitter : Panel mount type
Ultrasonic transducer : PFA/JIS10K50A
Conductivity detector : PFAJIS10K50A

FUD-1 Model-63

Explosion proof

Transmitter : Panel mount type
Ultrasonic transducer : SUS316/JIS10K50A
Conductivity detector : PFAJIS10K50A
Repeater : Explosion proof repeater



Advantages

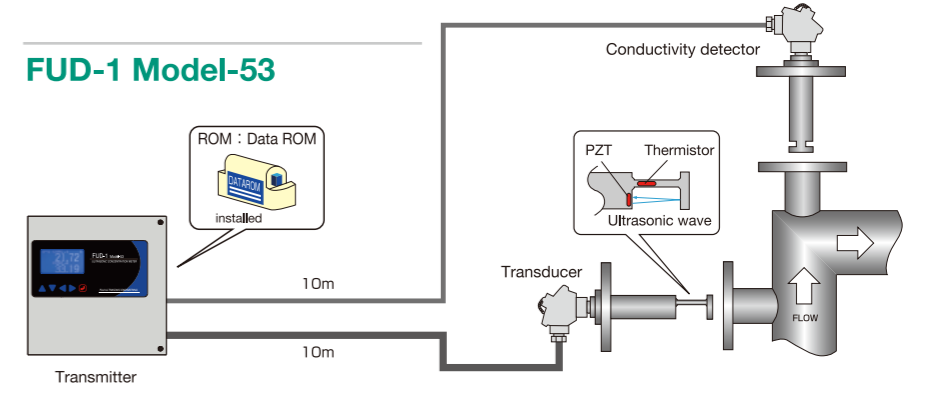
- This product enables real time controlling system easily with DCS as well as monitoring system with a standard PC.
- Various transducer materials are available for protection against chemical corrosion. Besides, flange type is selective among JIS, ANSI, DIN e.g.
*SUS316(L) *SUS304(L) *PFA coating
*Hastelloy *Titanium *Tantalum *PFA
*PVC *PVDF

Applications

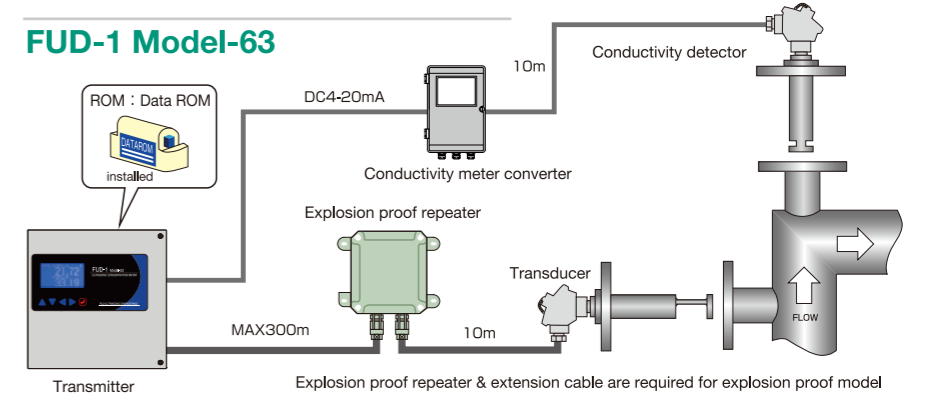
- Acid monitoring at steel cleaning process
- Etching rate control
- Cleaner concentration control e.g.



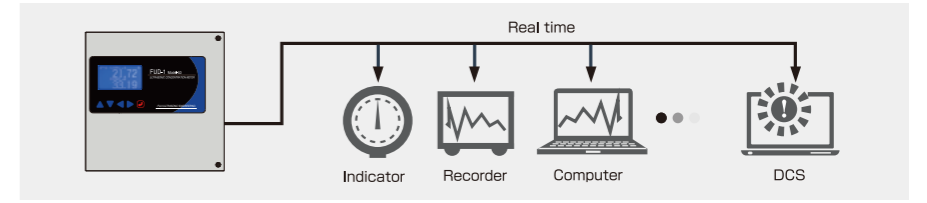
FUD-1 Model-53



FUD-1 Model-63



Management system example



Ternary solution?

Solution in some cases contains two solutes such as etchant & the material. FUD-1 Model-53(63) enables to measure the two concentrations in real time by combination technology of two principles such as ultrasonic velocity & conductivity.



In-line/Real time measurement

This product can measure concentration with outstanding tight accuracy and long term stability since the principle of this product is independent of color (transparency), flow rate, and din (sound noise).



User-friendly maintenance

This product does not require any periodical parts replacement due to no moving parts that can wear out or age. In addition, it is possible to check the product condition with water with its self-diagnostic function.



Superior customer service based on over 40 years sales experience

Together with our worldwide sales representatives who pride themselves in superior customer support, we always strive for complete customer's satisfaction.

Measurement principle

The graph shows the correlation of ultrasonic velocity, temperature, conductivity and concentration. This characteristic is recorded in a data ROM, and the two concentrations are calculated by measurement result of velocity, temperature, and conductivity.

