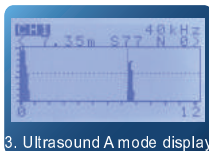
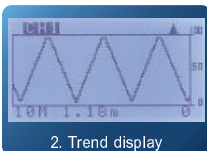




ULTRASONIC LEVEL METER

HD1200**Stable measurement
with DSP****Display screen (3 display modes)**

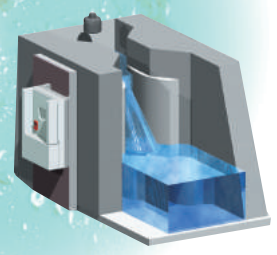
- Level / Distance display:** Display for the remaining amount and the distance from the sensor
- Trend display:** Display for the change of remaining amount in the tank
- Ultrasound A mode display:** Display for the ultrasonic reflection waveform

**Features**

- DSP gives the unique level detection algorithm and the stable measurement by the rejection of noise and the undesired reflection.
- By one main unit with 2 different sensors, 2 different measurement ranges at different locations can be measured.
- Log data can be stored on a micro SD™.
- Open channel flowmeter function is provided with the standard specifications.
- RS-485 (MODBUS protocol) is provided with the standard specifications for the communication with PLC (the sequencer).
- 4 lines of alarm output for the process control are provided to each channel.

Applications and examples

- Liquid / powder level management of the tank inside the machine
- Water level measurement for lakes, ponds and rivers
- Open channel flow measurement

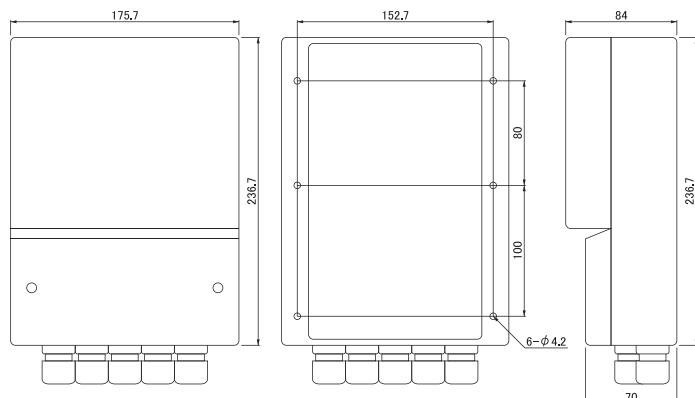
**■ Liquid level measurement****■ Powder level measurement****■ Application to the large weir****Sensor**

Model no.	TS40-5	TS40T-5	TS21-5	TS12-5
Measurement distance range	0.3 to 20m	0.3 to 15m	0.6 to 40m	1.2 to 60m
Sensor image		Chemical-resistant 		

ULTRASONIC LEVEL METER

HD1200

■Main Unit

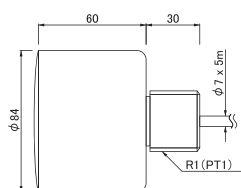


Model No.		HD1200
Number of channels		2
Frequency		10 to 60kHz transducer dependant
Object to be measured		Liquid / powder
Resolution	Measurement	1mm
	Display	1mm
Accuracy		±0.25%F.S.
Data update cycle		Approx. 2sec transducer dependant
Power source	Voltage	100 to 230V AC ±15%
	Power consumption	10VA
Display		LCD
Output	Alarm output	4 lines for each channel 250V AC, 5A (Relay contact)
	4-20mA current output	Resolution 1/4000 RL(Max)=600Ω
Interface		RS-485 (Max transmission range:1,200m) RS-232C (Max transmission range:10m)
Communication		microSD™
Operating ambient temp.		-20 to +70°C
Material		ABS
Structure		IP66 equivalent
Dimensions(WxDxH)		175.7 x 84 x 236.7mm
Weight		1.8kg

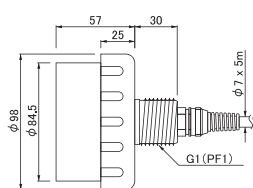
* Open channel flowmeter function is provided to CH1 only.

■Sensor

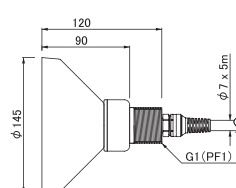
■TS40-5



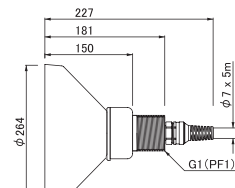
■TS40T-5 (Chemical-resistant)



■TS21-5



■TS12-5



Model No.	Sensor			
	TS40-5	TS40T-5	TS21-5	TS12-5
Frequency	40kHz	40kHz	21kHz	12kHz
Measurement distance range (1/2 for powder)	0.3 to 20m	0.3 to 15m	0.6 to 40m	1.2 to 60m
Sensor directivity angle (beam angle)	12°	22°	14°	14°
Operating ambient temperatures	-20 to +70°C	-20 to +70°C	-20 to +60°C	-20 to +60°C
Material	Epoxy, PP	PVDF	PVC and others	PVC and others
Structure	IP 66 equivalent	IP 66 equivalent	IP 53 equivalent	IP 53 equivalent
Dimensions	φ84 x 90mm	φ98 x 87mm	φ145x 120mm	φ264x 181mm
Sensor cord length	5m	5m	5m	5m
Weight	500g	860g	290g	1kg
Sensor attachment screw	R1	G1	G1	G1

* Any sensor cannot be used under the hydrofluoric atmosphere.

* Please do not hesitate to consult us regarding the extension of sensor cable.

* [micro SD™] is a trademark or a registered trademark of SD card Association.

* All brand names and product names are registered trademarks of their respective companies.

* Contents of this leaflet are based on data on July 1, 2014.

* Specifications and design of the products may be changed for improvement without notice.

* Colors of actual products may differ from pictures in the leaflet cause of print.



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