

Ultrasonic Level Meter

For fine powders, solids and liquids

Ultrasonic Level Meter

USLM series



Improved Maintainability

The ultrasonic level meter incorporates the latest technology in a compact unit, and delivers high performance measuring. It ensures enough space to facilitate inspection and maintenance. Our latest model of ultrasonic level meter offers compact size, high performance, and outstanding operation capabilities, and is readily available as well as fully warranted.

Non-contact Measurement

This ultrasonic level meter reflects ultrasonic waves off the stored materials and converts the time between wave transmission and echo reception into distance, so it can measure the level of stored materials without physical contact.

High Accuracy

The ultrasonic level meter delivers highly accurate level measurement at a resolution of 1 mm.

High Reliability

The ultrasonic level meter enables stable level measurement without the influence of specific dielectric constant, electrical conductivity of stored materials. In addition, reliable measurement is realized by means of original echo analysis technology, developed through our accumulated expertise.

Wide Selection

The ultrasonic level meter can cover a range of up to 70 m. Any of five models can be selected to best suit the application.

Maintenance Free

By installing the MVM adjustment software in a PC, the ultrasonic level meter can play the role of a high-end measuring instrument capable of parameter setting, confirmation of original waveforms and processed waveforms, confirmation of threshold levels and more. Multiple ultrasonic level meters can be monitored remotely by a single PC via RS485/USB communications.

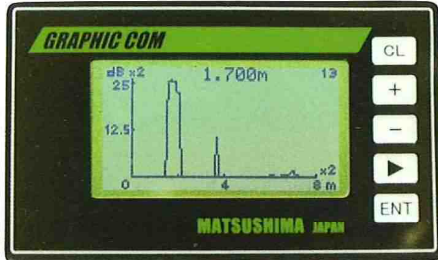


Application Examples

- Silo for Cement Products
- Fly-ash Silo
- Bunker for Lime/Clay
- Clinker Silo
- Blending Silo
- Sintering Tank
- Coal Tank
- Coke Tank
- Chip Silo
- Sludge Hopper
- Dehydrated Cake Hopper
- Hydrated Lime Hopper
- PP Silo
- Waste Plastic Bunker
- Dust Bunker
- Plaster Silo
- Truck Receiving Hopper
- Slurry Tank
- Yeast Tank
- Waste Material Bunker
- Wastewater Treatment Equipment
- Detection of Discontinuity of Packages on a Conveyor
- Silo for Grains and Feedstuff
- Syrup Tank

Easy Operation

Matsushima's ultrasonic level meter enables easy and accurate operations from on-site maintenance to complex system remote adjustment.



Waveform on the LCD adjustment unit GRAPHIC COM during monitoring (optional)



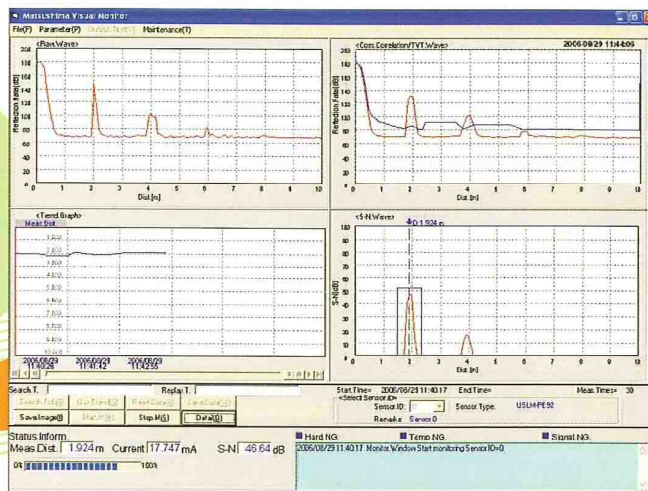
Appearance of GRAPHIC COM mounted to the main unit

On-site Operation

The GRAPHIC COM LCD adjustment unit can be mounted to the main unit and can display waveforms during monitoring on an easy-to-view LCD.

Remote Operation

Complex parameters settings can be directly made from a PC running the MVM adjustment software.



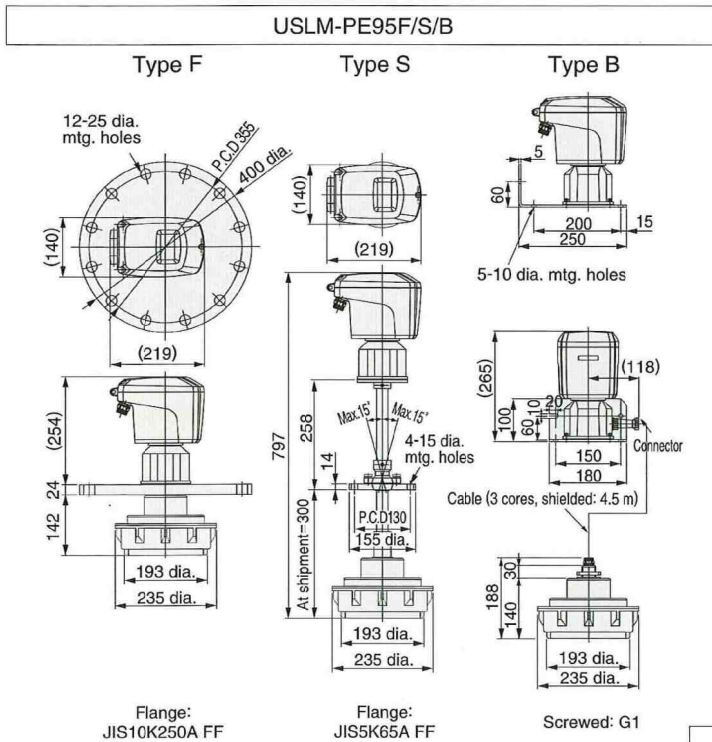
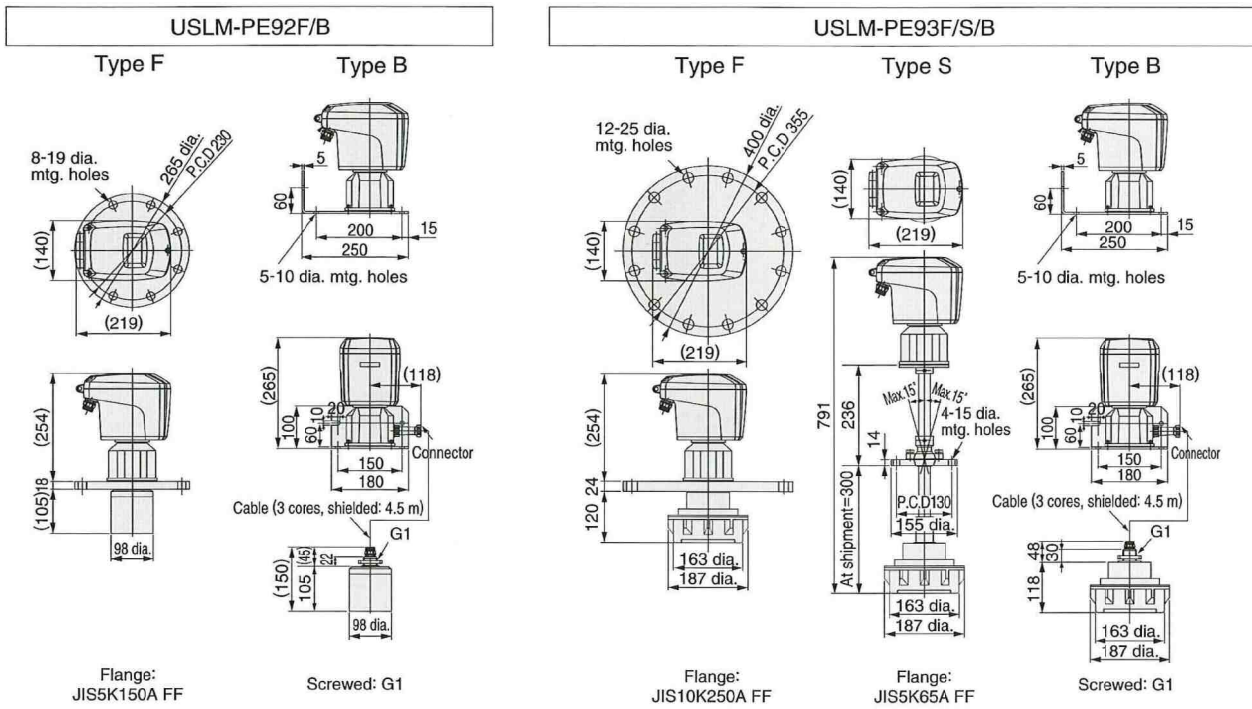
Real-time display of measurements

Specifications

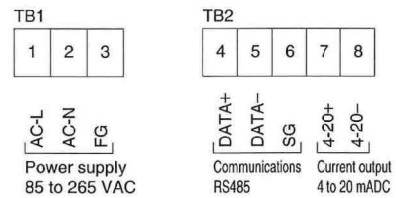
Model		USLM-□□□□□□	PE92F/S/B/SB	PE93F/S/B/SB	PE95F/S/B/SB
Power supply		85 to 265 VAC 50/60 Hz			
Power consumption		Max. 9 VA			
Mounting	Integrated flange type (Type F)	JIS5K150A	JIS10K250A		
	Adjustable flange type (Type S)	JIS5K65AFF adjustable flange, adjustable angle: 15° in all directions			
	Separated type (Type B)	G1 screw fitting, with locknuts			
	Separated type with adjustable flange (Type SB)	JIS5K65AFF adjustable flange, adjustable angle: 15° in all directions			
Minimum/Maximum measurement range	Integrated flange type (Type F)	Liquids	0.6 to 10 m	0.9 to 25 m	1.0 to 45 m
		Fine powders	0.6 to 5 m*	1.1 to 10 m	1.1 to 20 m
	Adjustable flange type (Type S)	Liquids	0.5 to 10 m	0.7 to 25 m	0.8 to 45 m
		Fine powders	0.5 to 5 m*	0.9 to 10 m	0.9 to 20 m
	Separated type (Type B)	Liquids	0.5 to 10 m	0.7 to 25 m	0.8 to 45 m
		Fine powders	0.5 to 5 m*	0.9 to 10 m	0.9 to 20 m
Separated type with adjustable flange (Type SB)	Liquids	0.5 to 10 m	0.7 to 25 m	0.8 to 45 m	
	Fine powders	0.5 to 5 m*	0.9 to 10 m	0.9 to 20 m	
Transmission frequency		30 kHz	27 kHz	17 kHz	
Transmission cycle		240 ms		480 ms	
Angle of radiation (-3dB)		11 deg	4 deg	5 deg	
Resolution		1 mm			
Accuracy		±0.25% F.S.			
Output signal		4 to 20 mA DC ×1, 600 Ω or below			
Ambient temperature	Housing	-20 to 60°C			
	Transmitter	-40 to 95°C		-40 to 80°C	
Allowable inner pressure (Max.)		0.4 MPa	0.3 MPa	0.15 MPa	
Material	Housing	ADC			
	Flange	Integrated flange: PE/Adjustable flange: SS400			
Enclosure	Housing	Protection rating: IP65			
	Transmitter	Protection rating: IP68			
Lead outlet		G1/2×2			
Approx. mass		Approx. 7 kg	Approx. 8 kg	Approx. 10.5 kg	
Options		·LCD adjustment unit (GRAPHIC COM)		·Software for adjustment (MVM)	
		·USB-RS485 converter for adjustment with host controller			

* Measurement of solids

● Dimensions mm



● Connection diagram



Specifications are subject to change without notice.
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Caution
● Read the instructions to ensure correct and suitable application of products.
● Contact our nearest sales office when using our products for any systems used in situations which may be life threatening.

Distributor



Matsushima Measure Tech Co., Ltd.

HEAD OFFICE
1-8-18, NORMATSU-HIGASHI, YAHATANISHI-KU, KITAKYUSHU,
807-0837 JAPAN
Tel: +81-93-991-3731 FAX: +81-93-991-3735

Chicago Representative Office
1600 GOLF ROAD, SUITE 1200, ROLLING MEADOWS, IL 60008, USA
Tel: +1-847-981-4742 FAX: +1-847-890-6688

Pohang Representative Office
Odyssey Bldg. 1F, 41, Jukdo-ro 28Beon-gil, Buk-gu, Pohang-si,
Gyeong-sangbuk-do, 791-841, Korea
Tel: +82-(0)54-274-3731 FAX: +82-(0)54-274-3731

Affiliated company
Shanghai Dahong Matsushima Machinery Co., Ltd.
70 Henggang Road, Dahong, Malu, Jading, Shanghai 201818, China
Tel: +86-(0)21-5951-4138 FAX: +86-(0)21-5951-4139

http://www.matsushima-m-tech.com E-mail: info@matsushima-m-tech.com