Matsushima
Matsushima Measure Tech

For Continuous measurement of powder, solid, liquid

Radar Level Transmitter

MWLM-PR26 Series

Extended the produc

Matsushima's radar level transmitter is manufactured domestically from software to hardware, so it can be delivered quickly with stable supply, and also support our customers with quick maintenance. Since Matshushima has 60 years of experience in measurement control, we are able to meet our customer's requests regarding installation to the facilities.

Customization

Customize the level meter for suitable measuring environments and usage. Able to provide customized level meter in applications that have restrictions under high temperature and high pressure areas.

Special Antenna
(Bended antenna)

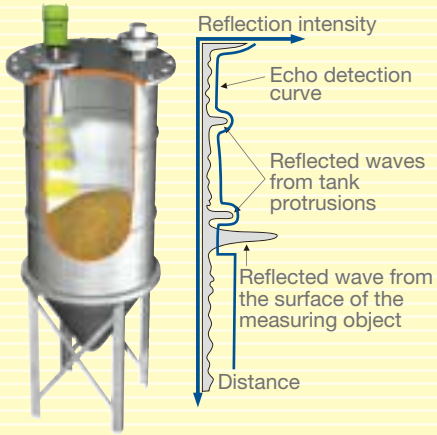
Special Antenna
(With waveguide extension pipe)

With Cooling Box
(For High Temperature Environment)

Special Antenna
(With reflection plate for horizontal installation)

Measuring Principle

The microwave level meter measures the time from when the level meter emits pulse radar waves from the antenna to when the waves (echoes) reflected from the object to be measured return to the meter, which is then calculated into a distance.



t warranty period to 2 years.

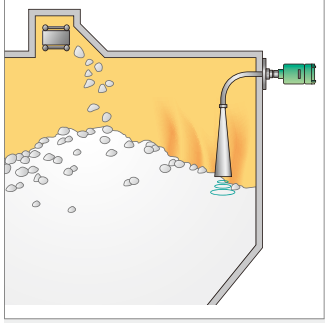
Flex
cust
capa

Applications

Applies to a variety of applications and flexible customization capability based on our long experience and know-how.

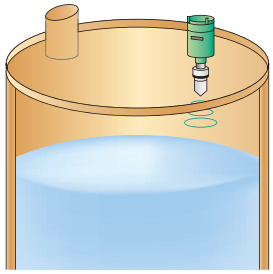
Usage in Applications

Material Silo



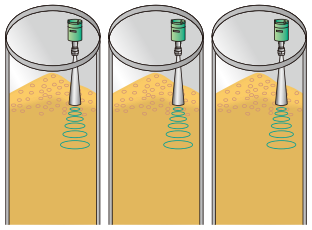
If there's no space to install on top of the silo, it is able to measure from the side of the silo.

Chemical Tank



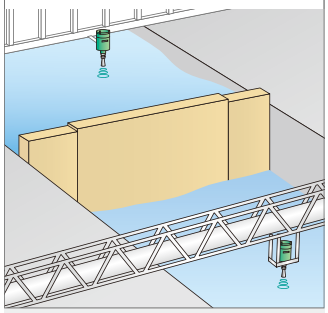
By attaching the PTFE antenna, it is able to measure corrosive chemicals.

Food Silo



Narrow beam angle allows to measure inside a thin, long grain silos.

Water level



Able to continuously measure without being affected by rain, wind, and snow.

Options

With dust cap
(Dust Prevention)

With Flat Antenna
(Installation Environmenal Measure)

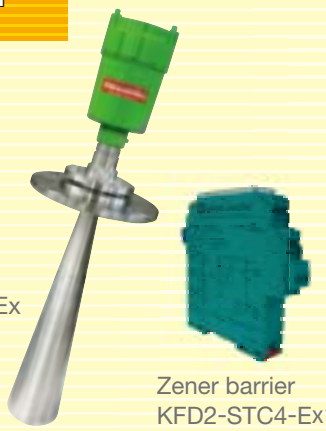
With sunshade cover
(Protect against harsh sunlight)

With heat radiation fins
(High temperature Environmenal Measure)

NEW

Explosion-proof Approved

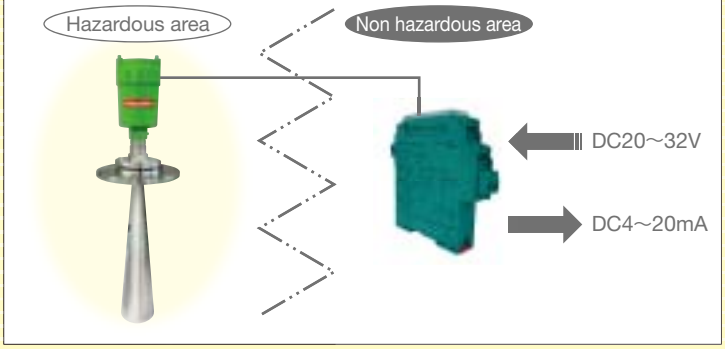
Line up of first domestic explosion-proof microwave level transmitter.
Explosion-proof enclosure : Ex ia ⅡB T4 (TIIS)



Explosion-proof level meter
MWLM-PR26H7SEx

Zener barrier
KFD2-STC4-Ex1

System composition



Easy Operation

Simple and precise operation possible. Site maintenance with simple hand communicator "GRAPHIC COM 3". Remote operation with customer friendly software.

Local Operation

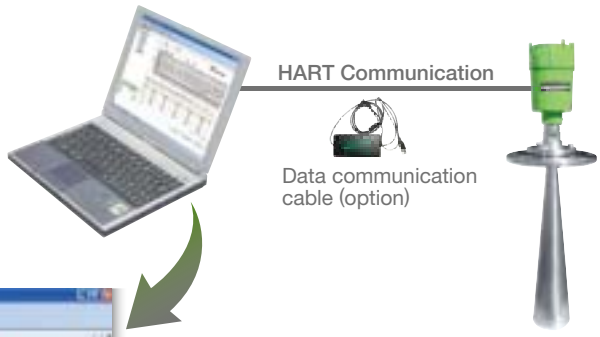
"GRAPHIC COM 3", a detachable LCD adjuster, has a liquid crystal display with high-visibility. You can see waveforms in real time while monitoring, and you can adjust settings if needed.

GRAPHIC COM
on the sensor head

Real time indication for
measurement situation

Remote Operation

The PC with adjustment software allows easy operation for complex parameter settings.

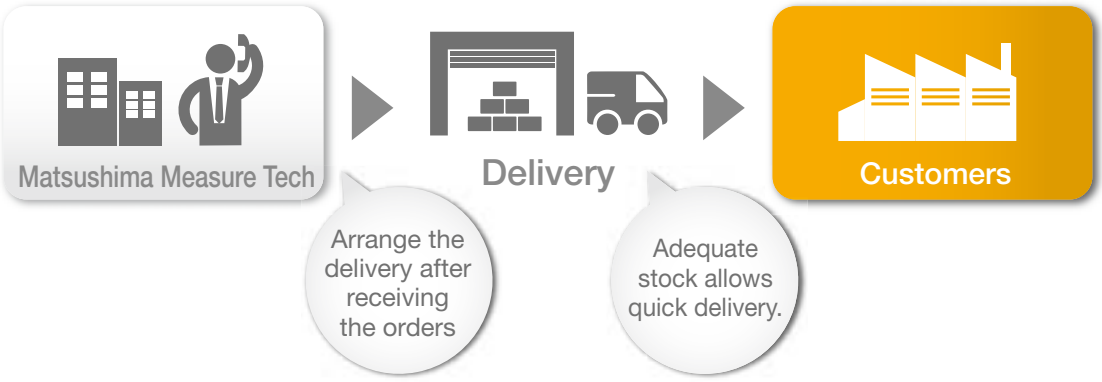


Software Features

- Real time indication for measurement situation
- Make adjustment
- Check waveforms while monitoring and store the data
- Record trends
- Languages: Japanese, English, Chinese, and Korean

Speedy Delivery

Standard type model can be shipped immediately. Customized products are manufactured in our own factory under quality control and could deliver with short delivery time. Also will quickly support the customers with any troubles and inquiries.



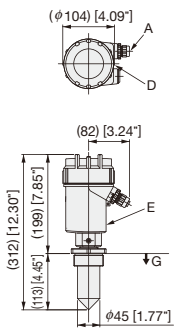
For Liquid		Specifications			
Model		MWLM-PR26C	MWLM-PR26H*		
Product Code		MWLM-PR26C1G	MWLM-PR26H1G	MWLM-PR26H2G*	MWLM-PR26H2F*
Antenna		Cone	Horn		
Power Supply		DC20 ～ 32V For explosion-proof type, provide the power through the Safety Barrier			
Power Consumption		Standard type: Approx. 704mW, Explosion-proof: Approx. 540mW			
Mounting		G2 Thread	G1 Thread	G1 1/2 Thread	JIS5K50A Flange
Dead Zone		0.5m (1.64ft) below the antenna			
Max Measurable Distance		10.0m (33ft) from measuring reference zero point		20.0m (66ft) from measuring reference zero point	
Transmitting Frequency		Approx. 26GHz			
Transmitting Cycle		Every 83ms			
Beam Angle		Approx. 24° (approx. 48deg. including side beam)		Approx. 18° (approx. 36deg. including side beam)	
Resolution		1mm			
Allowable Fluctuation Rate		10cm/s			
Accuracy	Repeatability	Within 2m (6.56ft) or less: ±30mm (1.18in), Over 2m (6.56ft) or more: ±20mm (0.78in) or ±0.04% of measurement range (Whichever is greater)			
	Temp. Error	0.06%/10K			
Ambient Temperature	Housing	Standard: -40 ～ +80℃ (-40 ～ +176℉), With LCD: -20 ～ +60℃ (-4 ～ +140℉), Ex-proof: -20 ～ +50℃ (-4 ～ +122℉) 1 hour is required to warm up the device if the temperature is lower than -20℃ (-4℉).			
	Antenna	Standard: -40 ～ +150℃ (-40 ～ +302℉), Ex-proof: -40 ～ +100℃ (-40 ～ +212℉)			
Allowable Pressure		490kPa (71.07psi)	1MPa (145psi)		490kPa (71.07psi)
Material	Housing	ADC			
	Antenna	PTFE	SUS304	SUS316L	
Protection	Housing	IP66 (Housing cover and lead outlet must be closed)			
	Antenna	IP67			
Lead Outlet		1-G1/2 (Applicable cable size: ϕ8 to 12mm (0.31 to 0.47in)			
Output Signal		DC4～20mA×1 (Load resistance when 24VDC power supply is used; 499Ω max), HART communication			
Integral Time		0 ～ 999s			
Mass		Approx. 1.9kg (4.19lbs)	Approx. 1.6kg (3.53lbs)	Approx. 1.9kg (4.19lbs)	Approx. 2.2kg (4.85lbs)
Accessories (option)		· LCD adjustment unit (GRAPHIC COM 3) · Data Communication cable (MHM-01) · PC adjustment software (M-DTM) Safety barrier (KFD2-STC4-Ex1) is needed to use the explosion proof type. LCD display can't be used since it's a non explosion proof parts.			

✻: Explosion Proof model has Ex written at the end of each model. Explosion proof structure is Ex ia ⅡB T4 (TIIS).

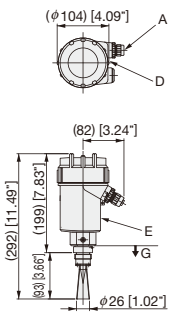
●Dimension mm [in]

Model : MWLM-PR26□□□

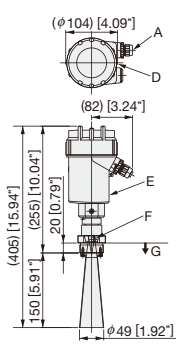
C1G



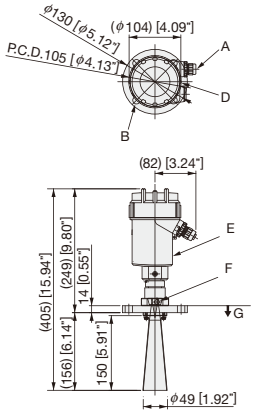
H1G



H2G

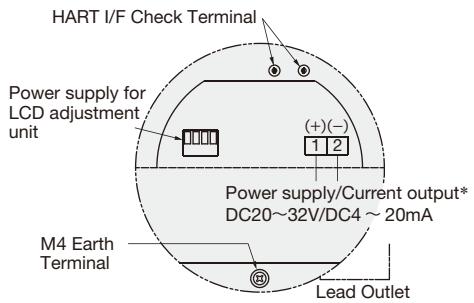


H2F



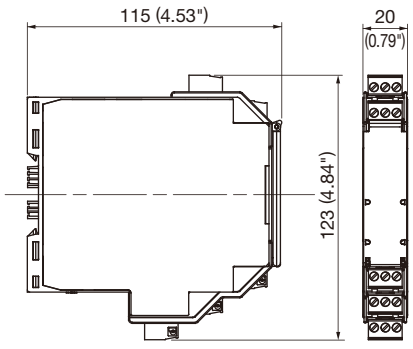
A	Lead outlet: G1/2	Cable: ϕ8-12mm [0.31-0.47"]
B	4×ϕ15 [0.59"] Mounting hole	
C	8×ϕ19 [0.75"] Mounting hole	
D	Earth terminal (M4)	Be sure to ground the earth terminal. (D-class grounding)
E	Housing	Housing rotatable in 310°.
F	Purge nozzle: G1/8	
G	Measurement reference zero poin	

Common for Liquid & Powder Terminal Block



✻: Two wire shielded cable is recommended.
For explosion-proof type, provide the power through the Safety Barrier.

Specs & Dimensions of the safety barrier



Specifications

Power Specs.
- Power Supply: DC20 ～ 35V
- Power Consumption: 1.9kW

Input Specs.
- Input Signal: 0/4 ～ 20mA
- Available voltage:
  ≧16V at 20mA terminal 1+,3

Output Specs. (Safety area)
- Output signal:
  0/4~20mA ; load 0~500Ω
- Pulsating Current: ≦50μA rms

Mass: 200g (0.44lbs)

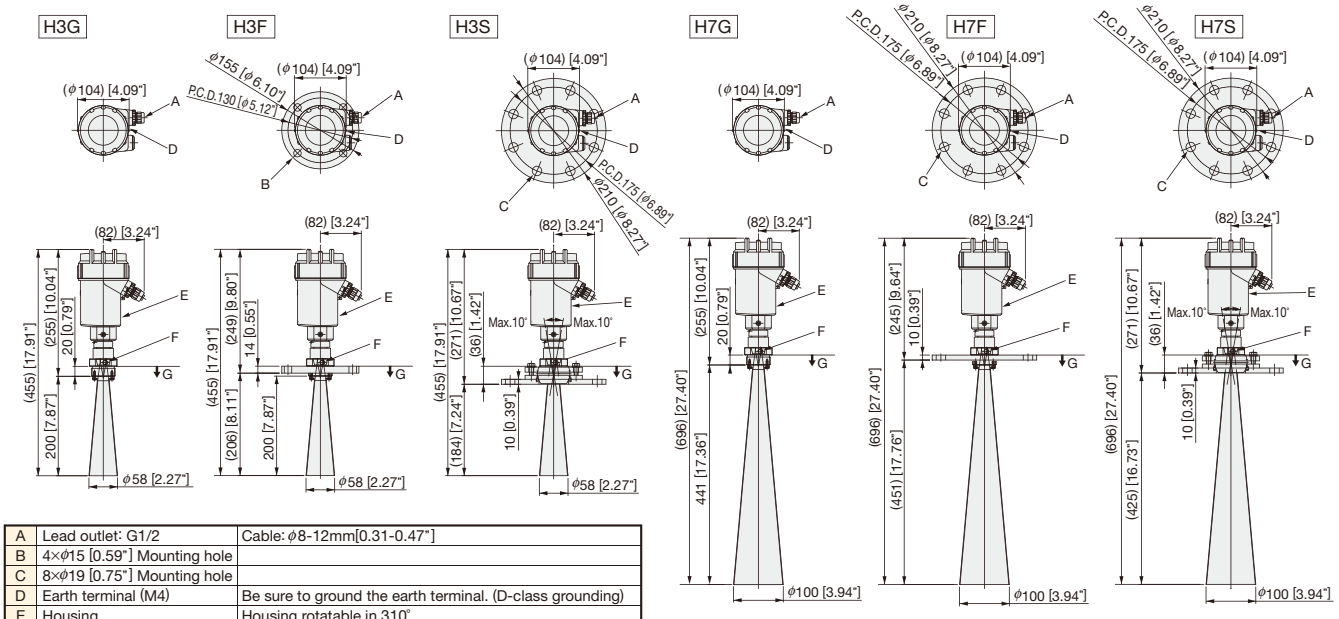
※This product uses a connection to the distributor or isolated interface(HART supported) and a card as a basic connection.
For other connection methods and for any questions, please contact us.

For Powder		Specifications					
Model		MWLM-PR26H*					
Product Code		MWLM-PR26H3G*	MWLM-PR26H3F*	MWLM-PR26H3S*	MWLM-PR26H7G*	MWLM-PR26H7F*	MWLM-PR26H7S*
Antenna		Horn					
Power Supply		DC20～32V For explosion-proof type, provide the power through the Safety Barrier					
Power Consumption		Standard type: Approx.704mW, Explosion-proof: Approx.540mW					
Mounting		G1 1/2 Thread	JIS5K65A Flange	Swivelling Flange (Equivalent to JIS10K100A)	G1 1/2 Thread	Equivalent to JIS10K100A	Swivelling Flange (Equivalent to JIS10K100A)
Dead Zone		0.3m (0.98ft) below the antenna					
Max Measurable Distance		35.0m (115ft) from measuring reference zero point			70.0m (330ft) from measuring reference zero point		
Transmitting Frequency		Approx. 26GHz					
Transmitting Cycle		Every 83ms					
Beam Angle		Approx. 14deg. (approx. 28deg. including side beam)			Approx. 8deg. (approx. 16deg. including side beam)		
Resolution		1mm					
Allowable Fluctuation Rate		10cm/s					
Accuracy	Repeatability	Within 2m (6.56ft) or less: ±30mm (1.18in), Over 2m (6.56ft) or more: ±20mm (0.78in) or ±0.04% of measurement range (Whichever is greater)					
	Temp. Error	0.06%/10K					
Ambient Temperature	Housing	Standard: -40～+80℃ (-40～+176℉), With LCD: -20～+60℃ (-4～+140℉), Ex-proof: -20～+50℃ (-4～+122℉) 1 hour is required to warm up the device if the temperature is lower than -20℃ (-4℉).					
	Antenna	Standard: -40～+150℃ (-40～+302℉), Ex-proof: -40～+100℃ (-40～+212℉)					
Allowable Pressure		1MPa (145psi)	490kPa (71.07psi)	490kPa (71.07psi)	1MPa (145psi)	250kPa (36.26psi)	490kPa (71.07psi)
Material	Housing	ADC					
	Antenna	SUS316L					
Protection	Housing	IP66 (Housing cover and lead outlet must be closed)					
	Antenna	IP67					
Lead Outlet		1-G1/2 (Applicable cable size: ϕ8 to 12mm (0.31 to 0.47in)					
Output Signal		DC4～20mA×1 (Load resistance when 24VDC power supply is used; 499Ω max), HART communication					
Integral Time		0～999s					
Mass		Approx. 2.3kg (5.07lbs)	Approx. 4.4kg (9.70lbs)	Approx. 6.1kg (12.35lbs)	Approx. 2.7kg (5.95lbs)	Approx. 5.3kg (11.68lbs)	Approx. 6.5kg (14.33lbs)
Accessories (option)		・LCD adjustment unit (GRAPHIC COM 3) ・Data Communication cable (MHM-01) ・PC adjustment software (M-DTM) Safety barrier (KFD2-STC4-Ex1) is needed to use the explosion proof type. LCD display can't be used since it's a non explosion proof parts.					

✻: Explosion Proof model has Ex written at the end of each model. Explosion proof structure is Ex ia IIB T4 (TIIS).

●Dimension mm [in]

Model : MWLM-PR26 □□□



A	Lead outlet: G1/2	Cable: ϕ8-12mm[0.31-0.47"]
B	4×ϕ15 [0.59"] Mounting hole	
C	8×ϕ19 [0.75"] Mounting hole	
D	Earth terminal (M4)	Be sure to ground the earth terminal. (D-class grounding)
E	Housing	Housing rotatable in 310°
F	Purge nozzle: G1/8	
G	Measurement reference zero poin	

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

JQA-QM8197

Matsushima Measure Tech Co.,Ltd.

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