Kansai Automation

SENSOR TECHNOLOGY

HYCONTROL

REFLEX/SCANFLEX
MULTIFLEX
MINIFLEX LR
MICROFLEX-C

ULTRASONIC LEVEL INDICATOR

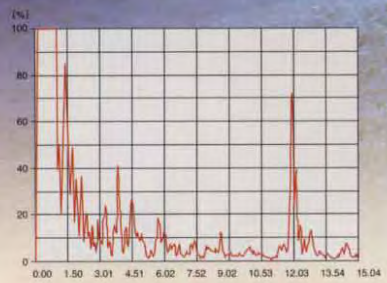
TYPICAL NON-CONTACT LEVEL METER !
OUTSTANDING SOFWARE MAKES HIGHLY STABLE AND RELIABLE.
A WIDE RANGE OF APPLICATIONS FROM SOLIDS TOLIQUIDS ,
MEASUREMENT IN LONGER RANGE WITH
MULTI-POINT SCANNING SYSTEM

CAT. No. UMH-034-0805J

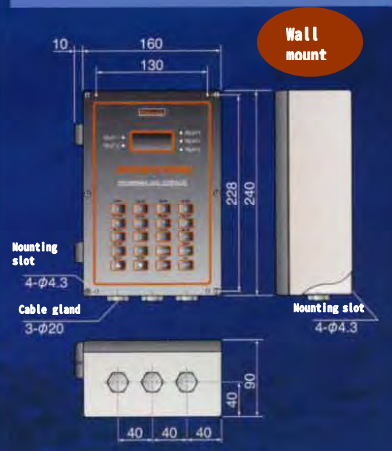
KANSAI Automation Co.,Ltd.

ULTRASONIC LEVEL INDICATOR

From Long-range Measurement to Multi-point Scanning,
Excellent Ultrasonic Level Meter !



REFLEX CONTROLLER



Accuracy : ±0.25% (ambient temp. 20°C)
Resolution: 2mm or 0.1%FS whichever greater
Blanking : Programmable
(min 0.5m dependent on transducer)
Transducers: RVY /RYT /RWV /RWT /
RXW19 series
Power Supply: 110/230VAC ±10%
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
Relay output: 5SPDT 250VAC 8A
30VDC 8A (Resistance load)
Analogue output: 4-20/20-4mA 750Ω
Serial output: RS232/ RS485
Display : Graphics LCD module
(120 x 32 dot)
5 red LED's for relay status
Ambient Temp : -40 - +70°C
Enclosure : IP65 Polycarbonate
Dimensions: 240 x 160 x 90mm
Weight : 1.75kg

■APPLICATION
① Measure Level
② Measure Empty distance
③ Measure Volume

ATEX
EExmIIT6

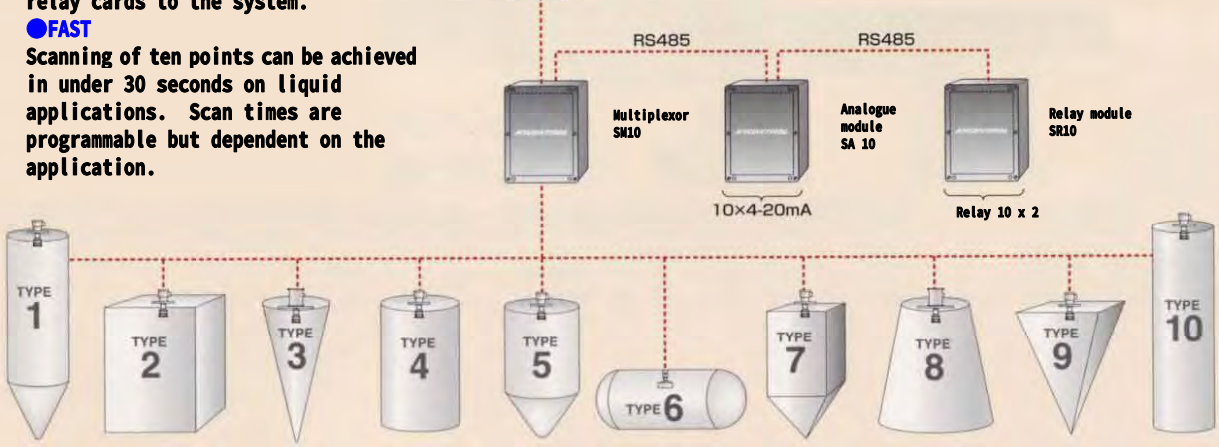
●VERSATILE
Multi-channel non-contact ultrasonic level controller for liquids, slurries & solids from 1 up to 10 points of level measurement. It can store data and output orderly or arbitrarily. Its measuring range up to 50 meters.

●MEASUREMENT & CONTROL
An analogue output and up to two relays per point can be achieved by the addition of SA-10 analogue and SR-10 relay cards to the system.

●FAST
Scanning of ten points can be achieved in under 30 seconds on liquid applications. Scan times are programmable but dependent on the application.

HYCONTROL
Multi-control System

REFLEX
Controller

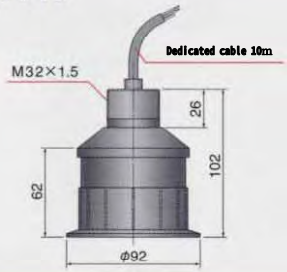


●REDUCING COST PER POINT
The Multiplexor SM-10, added to the Reflex, enables to scan up to 10 separate points of level, thus reducing the cost per point for each additional tank or silo monitored. SM-10 can remotely be added.

●SERIAL COMMUNICATION
RS232 port allows transfer of level data for all 10 points, and provides the means for fast commissioning when using Vision System software.

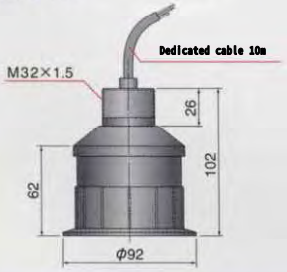
REFLEX TRANSDUCER

RYV15
RYT15 (Inbuilt Temp Sensor)



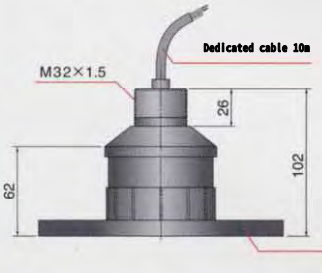
Body material: PVDF
Face material: Epoxy
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 20m
Max range solids: 10m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

RWV15
RWT15 (Inbuilt Temp Sensor)



Body material: PVDF
Face material: PVDF
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 20m
Max range solids: 10m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

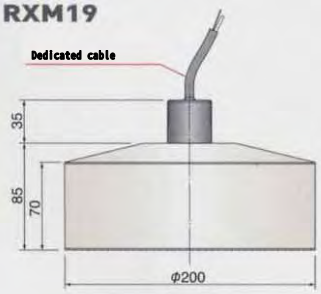
RYVF□□/RWVF□□ (Inbuilt Temp Sensor)
RVTF□□/RWTF□□



Body material: PVDF
Face material: Epoxy /PVDF
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 20m
Max range solids: 10m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: varied by flange size

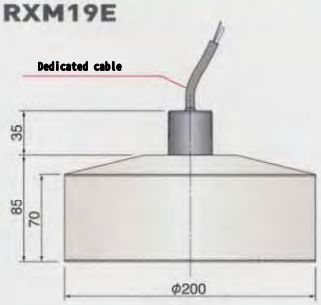
Flange(plastic)
4"/3" ASME, DN80/100

RXM19



Body material: Polypropylene
Face material: Polyethylene
Frequency : 19KHz
Beam angle: 8°
Min dead band: 0.75m
Max range liquids: 30m
Max range solids: 20m
Ambient temp: -20 - +60°C
Haz. area: No
Protection: IP65
Mounting: M20 x P1.5
Weight: 2.8kg

RXM19E

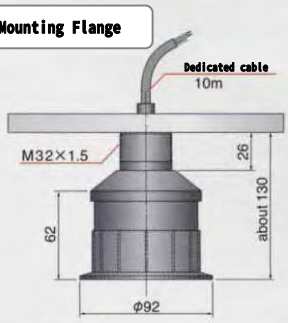


Body material: Polypropylene
Face material: Polyethylene
Frequency : 17KHz
Beam angle: 5°
Min dead band: 1.0m
Max range liquids: 50m
Max range solids: 35m
Ambient temp: -20 - +60°C
Haz. area: No
Protection: IP65
Mounting: M20 x P1.5
Weight: 4.8kg

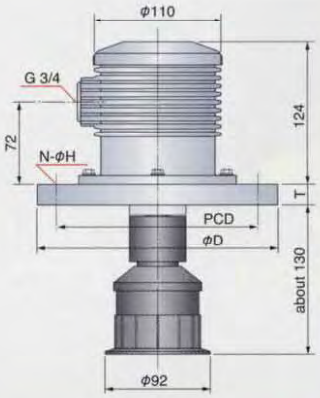
*The min. dead band and the max.range are varied by the operating temperature and environments.

OPTION

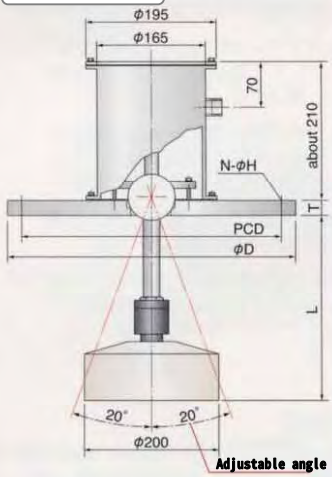
Mounting Flange



Mounting Flange + Terminal Box

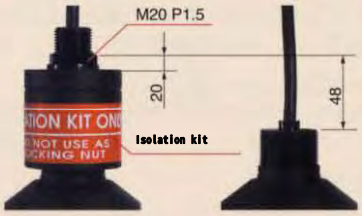


Mounting Flange + Terminal Box + Aiming kit



ISOLATION KIT

Kit to prevent oscillation loss of ultrasonic wave(standard)



ULTRASONIC LEVEL INDICATOR

APPLICATION

① Measure Level
② Measure Empty distance
③ Measure Volume
④ Measure Differential level
⑤ Measure Open channel flow
⑥ Pump control

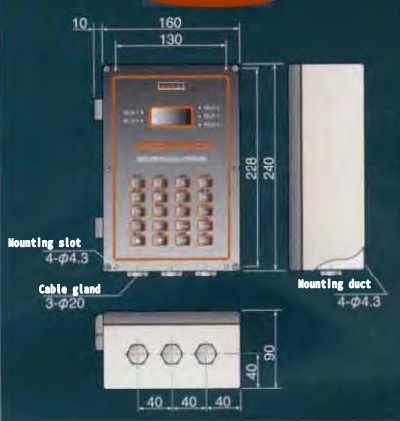
ATEX
EExm II T6

MULTIFLEX

Providing all the functionality of level control ranging from solids to liquids whatever the conditions may be.

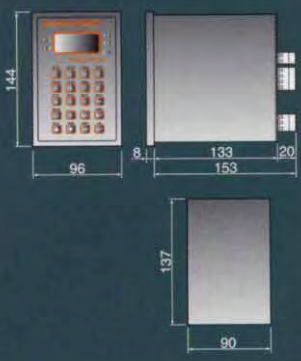
MULTIFLEX CONTROLLER

Wall mount



Accuracy : ±0.25% (ambient temp. 20°C)
Resolution: 2mm or 0.1%FS whichever greater
Blanking : Programmable
(min 0.5m dependent on transducer)
Transducers: RYV /RYT /RWV /RWT
Power Supply: 110/230VAC ±10%
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
Relay output: 5SPDT 250VAC 8A
30VDC 8A (Resistance load)
Analogue output: 4-20/20-4mA 750Ω
Serial output: RS232/ RS485
Display : 4 digit 12mm LCD
5 red LED's for relay status
Ambient Temp : -40 - +70°C
Enclosure : IP65 Polycarbonate
Dimensions: 240 x 160 x 90mm
Weight : 1.75kg

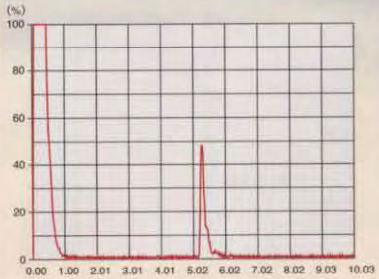
Panel mount



Accuracy : ±0.25% (ambient temp. 20°C)
Resolution: 2mm or 0.1%FS whichever greater
Blanking : Programmable
(min 0.5m dependent on transducer)
Transducers: RYV /RWV /RXN
Power Supply: 110/230VAC ±10%
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
Relay output: 5SPDT 250VAC 8A
30VDC 8A (Resistance load)
Analogue output: 4-20/20-4mA 750Ω
Serial output: RS232/ RS485
Display : 4 digit 12mm LCD
Ambient Temp : -40 - +70°C
Enclosure : IP65 Polycarbonate
Dimensions: 144 x 96 x 140mm
Weight : 1.75kg

FEATURES

- It can operate in dirty, dusty environments, and a high degree of resolution and functionality enables it to apply to diversified applications.
- It can be protected from any unauthorized access if a password is used. It maintains the high level of security.
- Linearisation for 7 different vessel shapes held in memory, its volume conversion is easier.
- It can accept power supplies of either DC or AC volt.
- There is no need for separate programmers or computers to set up but all you need is to set up necessary parameters using the keypad.



DIVERSITY

In applications on solids, it can operate in adverse environments such as dirt and dust. For liquids, it can achieve a high-degree of resolution and functionality. It can satisfy the requirements necessary for liquid and solid applications in one instrument, in either a panel or wall mount enclosure.

SECURITY

It can be protected from any unauthorized access if a password is used.

MULTIPLE POWER SUPPLIES

It can accept power supplies of either 110 or 230 volt AC. A separate 24 volt DC input is provided on every unit for those who want to operate on a safe DC voltage or provide back-up in case of power failure.

INTEGRAL CONSOLE

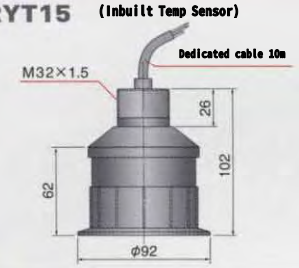
Neither complex codes or programming nor separate programmers or computers to set up are required. All you need is to set up necessary parameters using the keypad.

VOLUME CONVERSION

- Linearisation for 7 different vessel shapes is held in memory

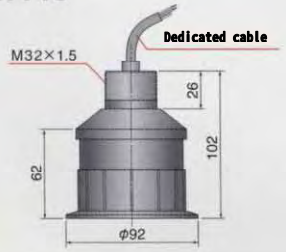
MULTIFLEX LR TRANSDUCER

RYV15 RYT15 (Inbuilt Temp Sensor)



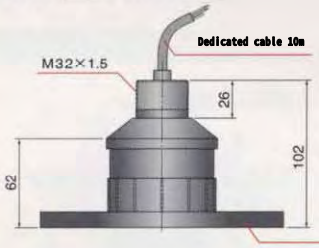
Body material: PVDF
Face material: Epoxy
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 15m
Max range solids: 10m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

RWV15 RWT15 (Inbuilt Temp Sensor)



Body material: PVDF
Face material: PVDF
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 15m
Max range solids: 10m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

RYVF□□/RWVF□□ (Inbuilt Temp Sensor) RVTF□□/RWTF□□



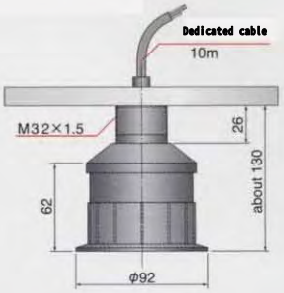
Body material: PVDF
Face material: Epoxy /PVDF
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 15m
Max range solids: 10m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: varied by flange size

Flange(plastic)
4"/3" ASME, DN80/100

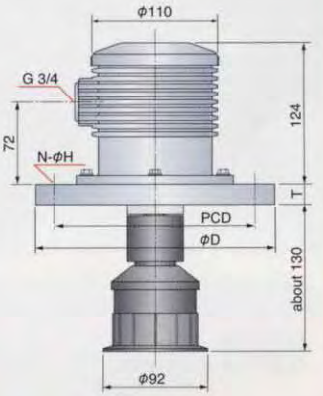
*The min. dead band and the max.range are varied by the operating temperature and environments.

OPTION

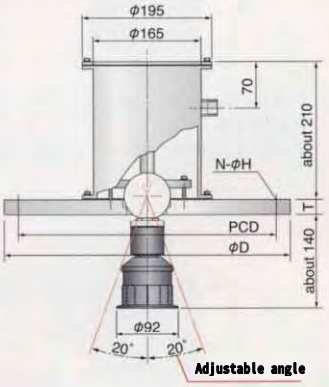
Mounting flange

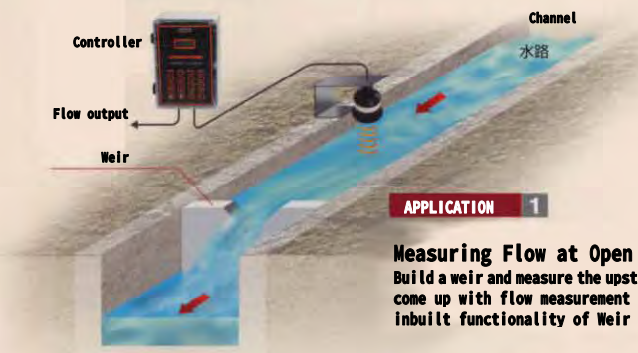


Mounting flange + Terminal box



Mounting flange + Terminal box + Aiming kit

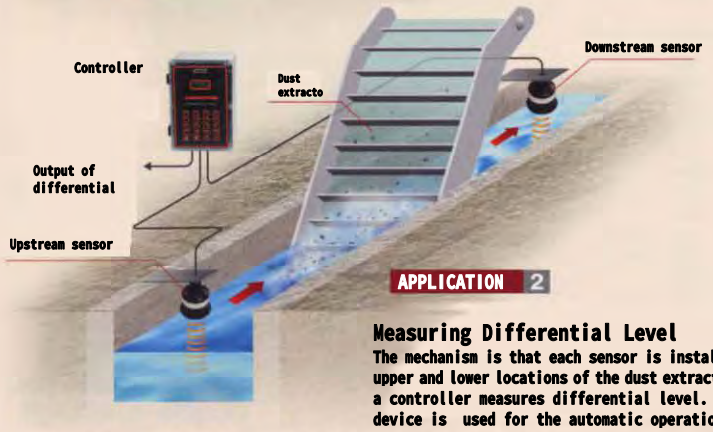




APPLICATION 1

Measuring Flow at Open Channel Weir

Build a weir and measure the upstream level. It can come up with flow measurement in setting up the inbuilt functionality of Weir Flow Conversion.



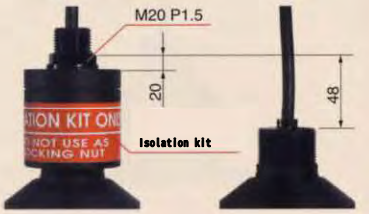
APPLICATION 2

Measuring Differential Level

The mechanism is that each sensor is installed at upper and lower locations of the dust extractor and a controller measures differential level. The device is used for the automatic operation of a dust extractor and can be applied to floodgate

ISOLATION KIT

Kit to prevent oscillation loss of ultrasonic wave(standard)



Attached

Unused

MINIFLEX CONTROLLER

MINIFLEX LR For Liquids

Compact but Highly Functional User Friendly

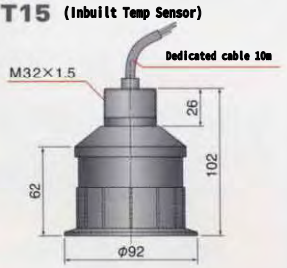
APPLICATION
① Measure Level
② Measure Empty distance
③ Measure Volume
④ Measure Differential level
⑥ Pump control
⑥ Weir flow

ATEX EExm II T6

Accuracy : ±0.25% (ambient temp. 20°C)
Resolution: 2mm or 0.1%FS whichever greater
Blanking : Fully Programmable
Transducers: RYV /RYT /RWV /RWT
Power Supply: 95/110/230VAC ±10%
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
Relay output: 3SPDT 250VAC 8A
30VDC (Resistance load)
Analogue output: 4-20/20-4mA 750Ω
Display : Multiline
Ambient Temp : --20 - +70°C
Enclosure : IP65 Polycarbonate
Dimensions: 185 x 213 x 119.5mm
Weight : 1.55kg

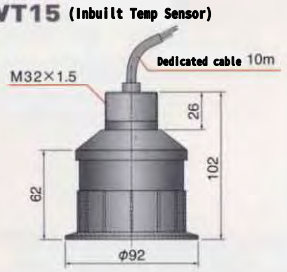
MINIFLEX LR TRANSDUCER

RYV15 / RYT15 (Inbuilt Temp Sensor)



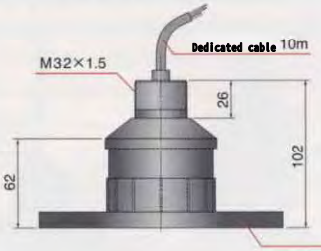
Body material: PVDF
Face material: Epoxy
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 10m
Max range solids: 5m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

RWV15 / RWT15 (Inbuilt Temp Sensor)



Body material: PVDF
Face material: PVDF
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 10m
Max range solids: 5m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

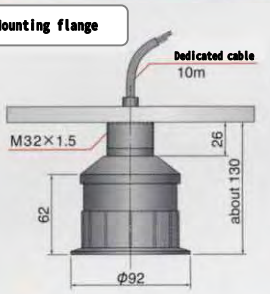
RYVF□□/RWVF□□ RVTF□□/RWTF□□ (Inbuilt Temp Sensor)



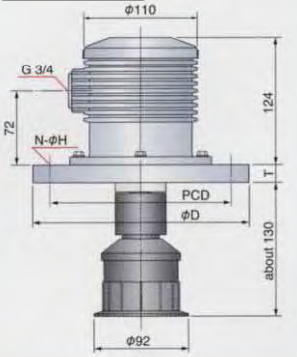
Body material: PVDF
Face material: Epoxy /PVDF
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 10m
Max range solids: 5m
Ambient temp: -40 - +90°C
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: varied by flange size

OPTION

Mounting flange



Mounting flange | Terminal box



ISOLATION KIT

Kit to prevent oscillation loss of ultrasonic wave

Attached | Unused

*The min. dead band and the max.range are varied by the operating temperature and environments.

Integral Amplifier • Two-wire Loop Powered
Simple to Calibrate and Use
Empty Distance and Span can be entered

TWO WIRE ULTRASONIC LEVEL TRANSMITTER

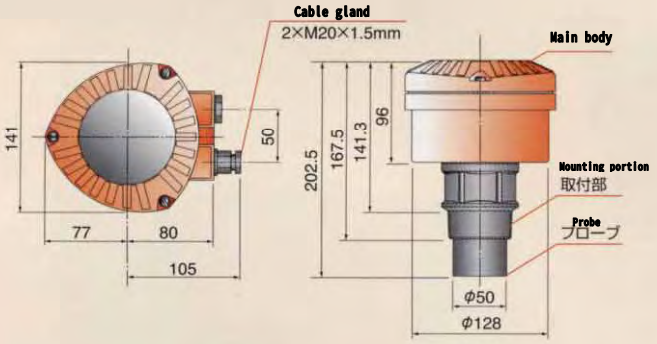
MICROFLEX-C For Liquids

Principle of Operation
An ultrasonic pulse is emitted from a sensor down towards the media and is reflected back from the surface. The time it takes to travel from/to the sensor is proportional to the distance traveled.

FEATURES

- The setup is simple as you set up with push buttons while seeing the LCD.
- You can select to indicate LCD either by meter, feet or inch
- The transducer material consisting of PVDF that is corrosion resistant, it can have a wide range of applications.
- It has a False Echo Rejection function that enables the instrument to identify two fixed obstructions, memorize their position and ignore them during the measuring process.

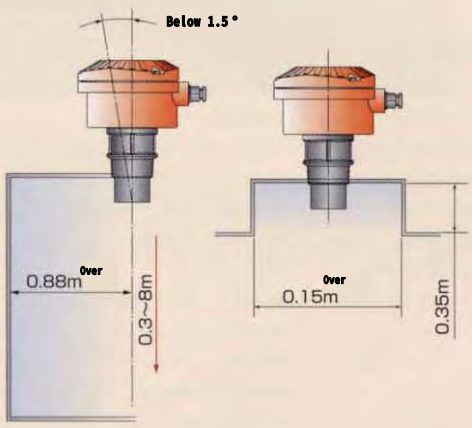
OUTLINE DIMENSIONS



Accuracy : ±5mm (<1m) / ±0.5%FS (>1m)
Resolution: 1mm
Max. range: 8m
Beam angle: 12°
Min. dead band: 0.3m
Power Supply: 12-30VDC(two wire loop powered)
Analogue output: DC4-20mA 750Ω
Serial output: ---
Display : digital LCD
Ambient Temp : -40 - +70℃
Housing : Glass filled nylon
Wet side : PVDF
Protection : IP67
Weight : 850g

INTERIOR

MOUNTING GUIDELINES

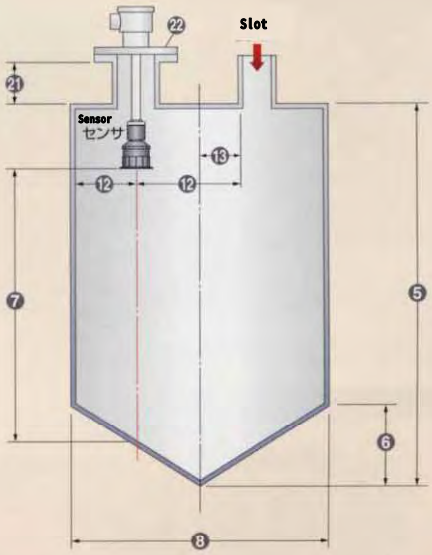


HYCONTROL VISION SYSTEM

REFLEX/SCANFLEX & MULTIFLEX can be connected to PC with serial outputs. A dedicated software (option) can be used to allow all echoes of ultrasonic waves to be viewed in trend analysis, thus enabling to make a higher degree of setup.

Please inform us of the following when referring and ordering.

❶	Object to be measured	[ ]
❷	Type	[Powder • Solids • Lump • Liquids]
❸	Shape	[ ]
❹	Repose angle	[Degree]
❺	Hopper height	[m]
❻	Cone height	[m]
❼	Measurable range	[m]
❽	Hopper diameter	[m]
❾	Umbo	[Yes / No]
❿	Agitator	[Yes / No]
⓫	Means of carriage	[ ]
⓬	Mounting position	[From slot ( )m From tank wall ( )m]
⓭	Slot position	[Center / From center ( )m]
⓮	Temp in a tank	[( )℃~( )℃]
⓯	Ambient Temp.	[Sensor ( )℃~( )℃ Control Unit ( )℃~( )℃]
⓰	Pressure in a tank	[Yes (KPa) / None]
⓱	Moisture	[( )%~( )%]



⓲	Dust	[Yes / No]
⓳	Corrosion	[Yes / No]
⓴	Aiming kit	[Yes ( ) / No]
㉑	Nozzle height	[mm]
㉒	Mounting standard	[Flange size]

Line of business

- ●Rotary Paddle Type Level Switch
- ●Vibration Type Level Switch
- ●Swing Type Level Switch
- ●Acoustic Level Switch
- ●Capacitance Type Level Switch
- ●Capacitive Proximity Sensor
- ●Capacitance Type Level Indicator
- ●Diaphragm Type Level Switch
- ●Tilt Switch
- ●Leak Type Level Switch
- ●Microwave Switch
- ●Sounding Bob Type Level Indicator
- ●Flow Switch
- ●Conductance Type Level Switch
- ●Float Switch
- ●Float Type Level Indicator
- ●Ultrasonic Type Level Indicator
- ●Equipments for Conveyor Lines
- ●Dust Monitor System
- ●Zirconia Oxygen Analyzer
- ●Laser Type Level Indicator
- ●Radar Type Level Indicator
- ●On-line Sensors for Accurate Liquid Analysis
- ●Ultrasonic Flow Meter

* The specifications herein may be subject to change without advance notice
* Please be sure to read USER'S GUIDE, Installation & Operation Instructions when using the instrument.

Nuclear Power Generation to Rice Milling
All-round Manufacturer of Level Controllers for Powder, Granules and Liquid

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Design,development,and manufacture of level measuring sensors

代理店 /Agent