

REFLEX/SCANFLEX MULTIFLEX MINIFLEX LR MICROFLEX-C

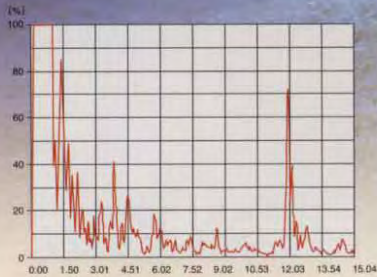
ULTRASONIC LEVEL INDICATOR



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

ULTRASONIC LEVEL INDICATOR

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

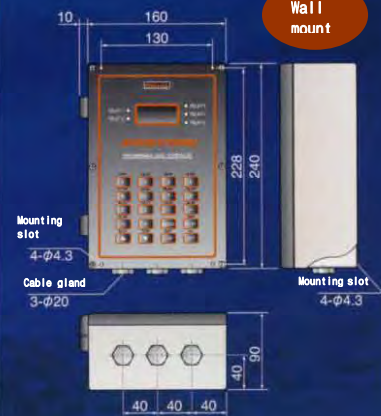


APPLICATION

- Measure Level
- Measure Empty distance
- Measure Volume

ATEX
EExmIIT6

REFLEX CONTROLLER



- Accuracy : $\pm 0.25\%$ (ambient temp. 20)
- Resolution: 2mm or 0.1%FS whichever greater
- Blanking : Programmable
(min 0.5m dependent on transducer)
- Transducers: RYV / RYT / RWV / RWT / RXM19 series
- Power Supply: 110/230VAC $\pm 10\%$
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
- Relay output: 5SPDT 250VAC 8A
30VDC 8A (Resistance load)
- Analogue output: 4-20/20-4mA 750
- Serial output: RS232/ RS485
- Display : Graphics LCD module
(120 x 32 dot)
5 red LED 's for relay status
- Ambient Temp : -40 - +70
- Enclosure : IP65 Polycarbonate
- Dimensions: 240 x 160 x 90mm
- Weight : 1.75kg

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

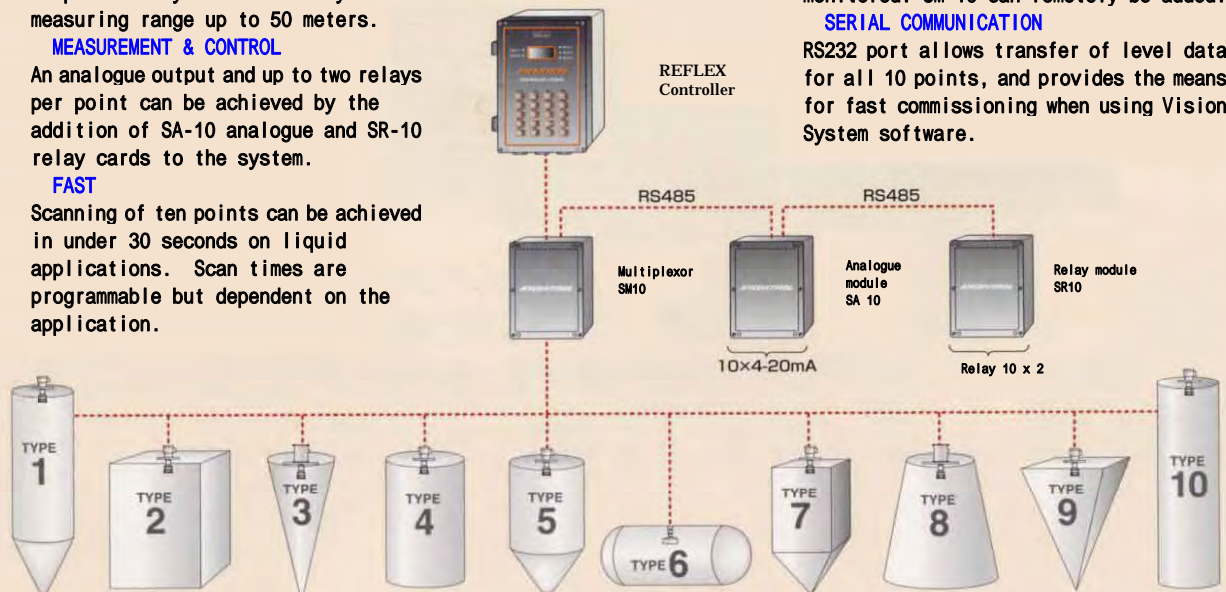
An analogue output and up to two relays per point can be achieved by the addition of SA-10 analogue and SR-10 relay cards to the system.

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



REDUCING COST PER POINT

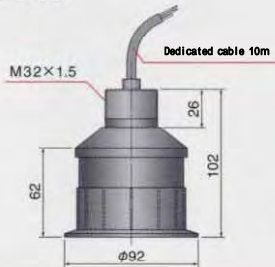
The Multiplexor SM-10, added to the Reflex, enables to scan up to 10 separate points of level, thus reducing the cost per point for each additional tank or silo monitored. SM-10 can remotely be added.

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.

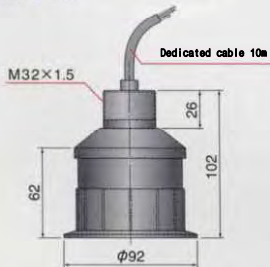
REFLEX TRANSDUCER

RJV15 RYT15 (Inbuilt Temp Sensor)



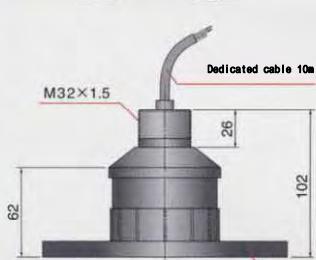
Body material: PVDF
Face material: Epoxy
Frequency : 41.5KHz
Beam angle: 12°
Min dead band: 0.3m
Max range liquids: 20m
Max range solids: 10m
Ambient temp: -40 - +90
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

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
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

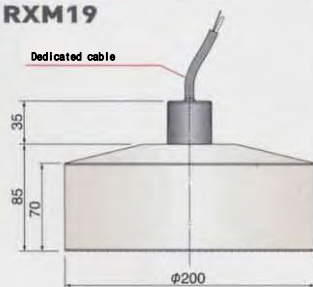
RJV□□/RWV□□ (Inbuilt Temp Sensor) RVTF□□/RWTF□□



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
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: varied by flange size

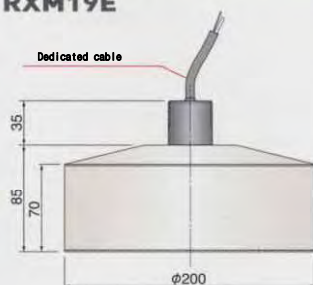
Flange(plastic)
4" / 3" ASME, DN80/100

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
Haz. area: No
Protection: IP65
Mounting: M20 x P1.5
Weight: 2.8kg

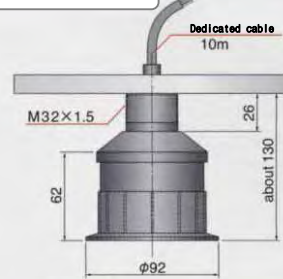
RXM19E



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
Haz. area: No
Protection: IP65
Mounting: M20 x P1.5
Weight: 4.8kg

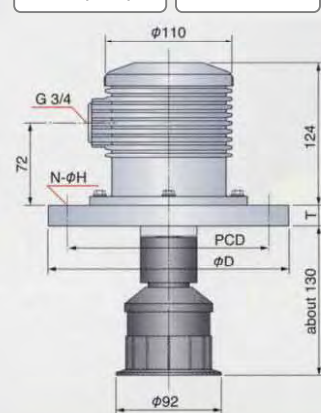
OPTION

Mounting Flange



Mounting Flange

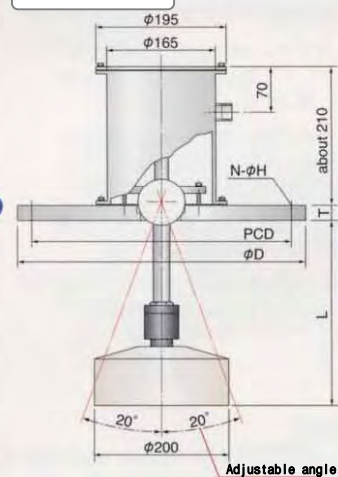
Terminal Box



Mounting Flange

Terminal Box

Alma kit



ISOLATION KIT

Kit to prevent oscillation loss of ultrasonic wave(standard)



Attached

Unused

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

ULTRASONIC LEVEL INDICATOR



MULTIFLEX

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

APPLICATION

- Measure Level
- Measure Empty distance
- Measure Volume
- Measure Differential level
- Measure Open channel flow
- Pump control

ATEX
IEExm II T6

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

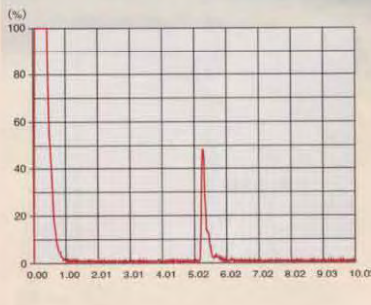
It can accept power supplies of either 110 or 230 volt AC. A separate 24 volt DC input is provided on every unit for those who want to operate on a safe DC voltage or provide back-up in case of power failure.

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.

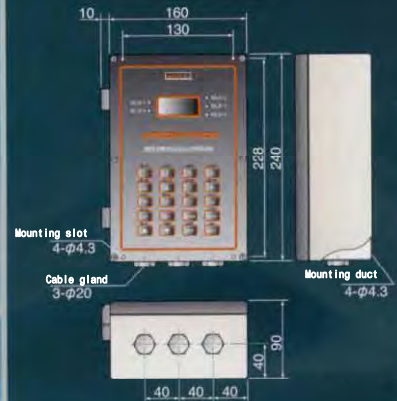
VOLUME CONVERSION

Linearisation for 7 different vessel shapes is held in memory



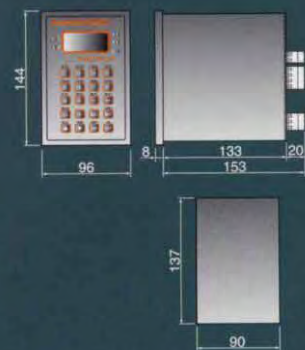
MULTIFLEX CONTROLLER

Wall mount



- Accuracy : $\pm 0.25\%$ (ambient temp. 20)
- 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 $\pm 10\%$
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
- Relay output: 5SPDT 250VAC 8A
30VDC 8A (Resistance load)
- Analogue output: 4-20/20-4mA 750
- Serial output: RS232/ RS485
- Display : 4 digit 12mm LCD
5 red LED 's for relay status
- Ambient Temp : -40 - +70
- Enclosure : IP65 Polycarbonate
- Dimensions: 240 x 160 x 90mm
- Weight : 1.75kg

Panel mount

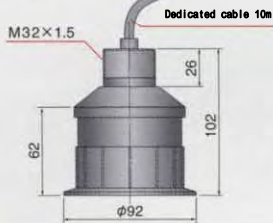


- Accuracy : $\pm 0.25\%$ (ambient temp. 20)
- Resolution: 2mm or 0.1%FS whichever greater
- Blanking : Programmable
(min 0.5m dependent on transducer)
- Transducers: RYV /RWV /RXM
- Power Supply: 110/230VAC $\pm 10\%$
50/60Hz 12VA selectable
or 24VDC +25% - 10% 9W
- Relay output: 5SPDT 250VAC 8A
30VDC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

MULTIFLEX LR TRANSDUCER

RYV15 RYT15

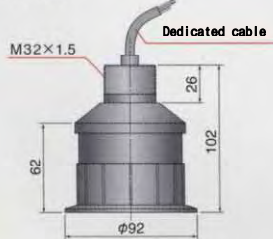
(Inbuilt Temp Sensor)



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
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

RWV15 RWT15

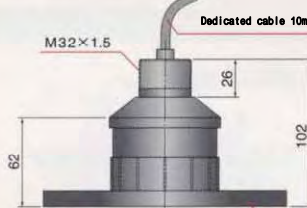
(Inbuilt Temp Sensor)



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
Haz. area: EExm IIT6
Protection: IP68
Mounting: M20 x P1.5
Weight: 2.0kg

RYVF□□/ RWVF□□ RVTF□□/ RWTF□□

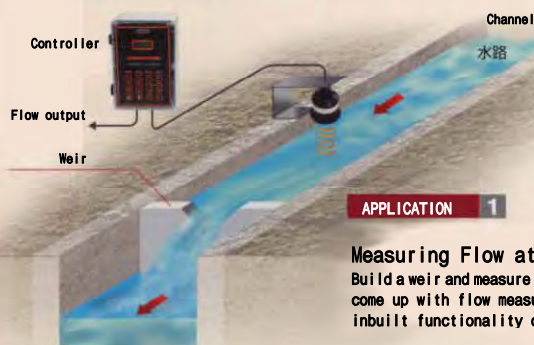
(Inbuilt Temp Sensor)



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

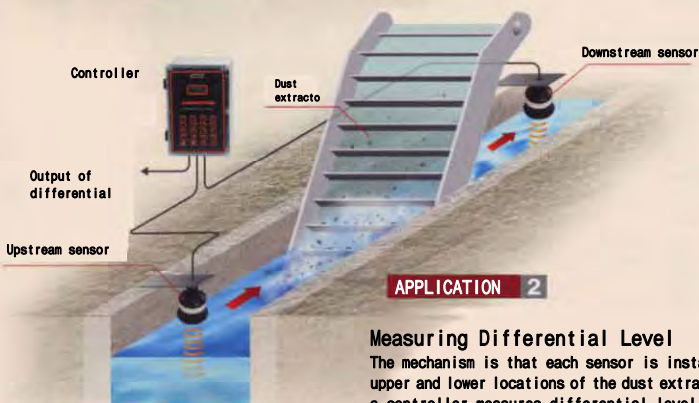
Flange(plastic)
4"/3" ASME, DN80/100

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



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.

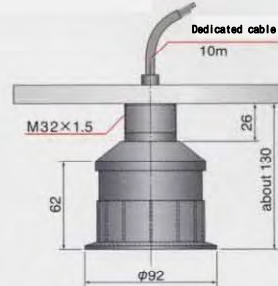


APPLICATION 2

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

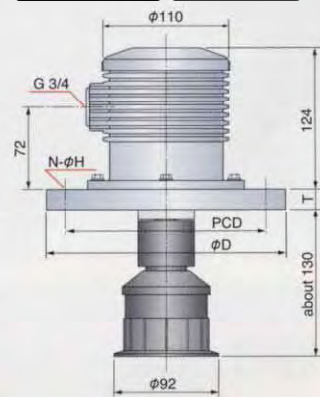
OPTION

Mounting flange



Mounting flange

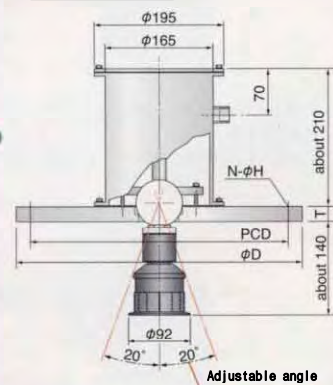
Terminal box



Mounting flange

Terminal box

Aiming kit



ISOLATION KIT

Kit to prevent oscillation loss of ultrasonic wave (standard)



Attached

Unused

ULTRASONIC LEVEL INDICATOR

MINIFLEX CONTROLLER

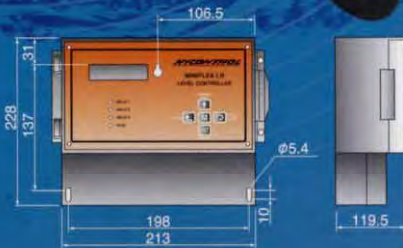


MINIFLEX LR For Liquids

Compact but Highly Functional
User Friendly

APPLICATION
 Measure Level
 Measure Empty distance
 Measure Volume Measure
 Differential level
 Pump control
 Weir flow

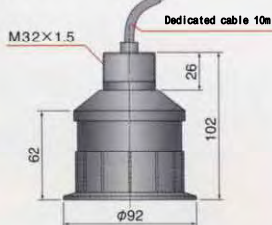
Accuracy : $\pm 0.25\%$ (ambient temp. 20)
 Resolution: 2mm or 0.1%FS whichever greater
 Blanking : Fully Programmable
 Transducers: RYV /RYT /RWV /RWT
 Power Supply: 95/110/230VAC $\pm 10\%$
 50/60Hz 12VA selectable
 or 24VDC +25% - 10% 9W
 Relay output: 3SPDT 250VAC 8A
 30VDC (Resistance load)
 Analogue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



ATEX
EExm II T6

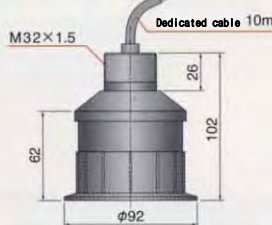
MINIFLEX LR TRANSDUCER

RYV15 RYT15 (Inbuilt Temp Sensor)



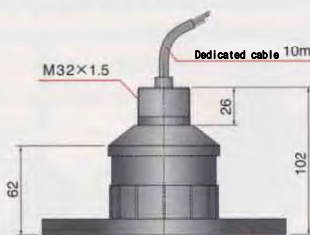
Body material: PVDF
 Face material: Epoxy
 Frequency : 41.5KHz
 Beam angle: 12 °
 Min dead band: 0.3m
 Max range liquids: 10m
 Max range solids: 5m
 Ambient temp: -40 - +90
 Haz. area: EExm IIT6
 Protection: IP68
 Mounting: M20 x P1.5
 Weight: 2.0kg

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
 Haz. area: EExm IIT6
 Protection: IP68
 Mounting: M20 x P1.5
 Weight: 2.0kg

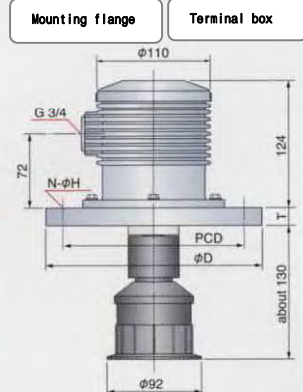
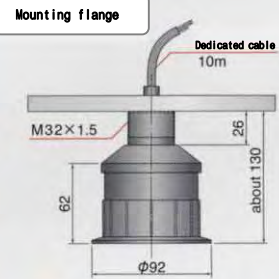
RYVF□□/RWVF□□ RVTF□□/RWTF□□ (Inbuilt Temp Sensor)



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
 Haz. area: EExm IIT6
 Protection: IP68
 Mounting: M20 x P1.5
 Weight: varied by flange size

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

OPTION



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

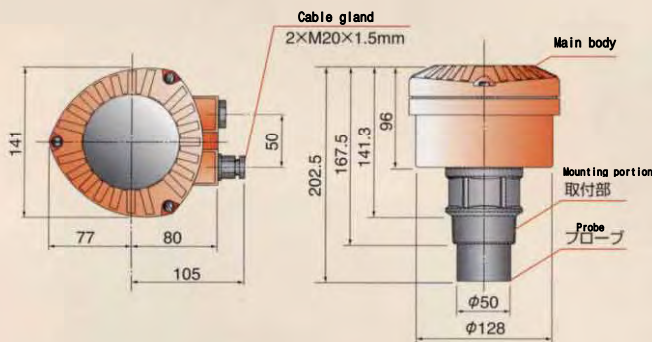


Principle of Operation
An ultrasonic pulse is emitted from a sensor down towards the media and is reflected back from the surface. The time it takes to travel from/to the sensor is proportional to the distance traveled.

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

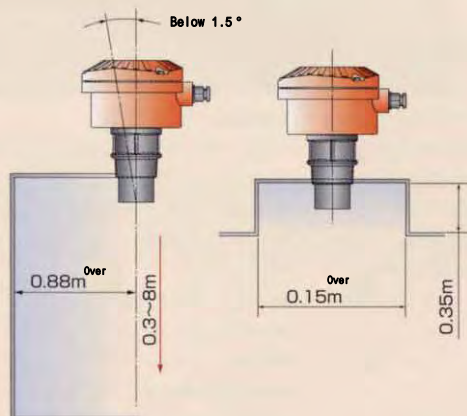


Accuracy : $\pm 5\text{mm}$ (<1m) / $\pm 0.5\%FS$ (>1m)
Resolution: 1mm
Max. range: 8m
Beam angle: 12°
Min. dead band: 0.3m
Power Supply: 12-30VDC (two wire loop powered)
Analogue output: DC4-20mA 750
Serial output: ---
Display : digital LCD
Ambient Temp : $-40 - +70$
Housing : Glass filled nylon
Wet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



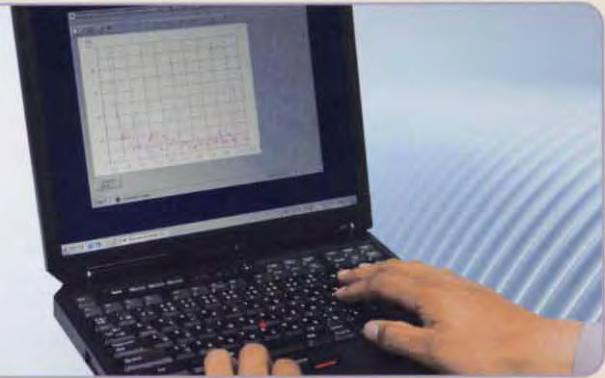
INTERIOR

MOUNTING GUIDELINES



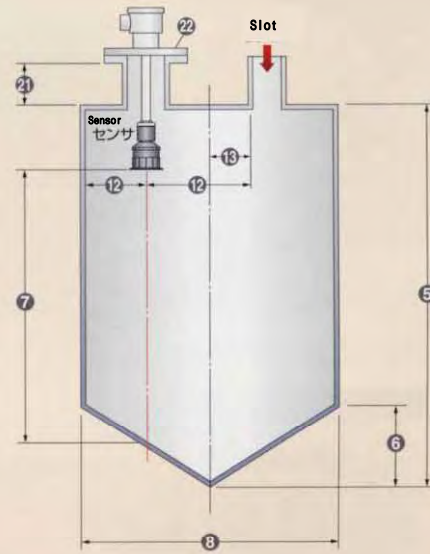
HYCONTROL VISION SYSTEM

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.

1	Object to be measured	[]
2	Type	[Powder • Solids • Lump • Liquids]	
3	Shape	[]
4	Repose angle	[	Degree
5	Hopper height	[	m
6	Cone height	[	m
7	Measurable range	[	m
8	Hopper diameter	[	m
9	Umbo	[	Yes / No
10	Agitator	[	Yes / No
11	Means of carriage	[]
12	Mounting position	[From slot ()m From tank wall ()m]	
13	Slot position	[Center / From center ()m]	
14	Temp in a tank	[()°C ~ ()°C]	
15	Ambient Temp.	[Sensor ()°C ~ ()°C Control Unit ()°C ~ ()°C]	
16	Pressure in a tank	[Yes () KPa / None]	
17	Moisture	[()% ~ ()%]	



18	Dust	[	Yes / No
19	Corrosion	[	Yes / No
20	Aiming kit	[	Yes () / No
21	Nozzle height	[	mm
22	Mounting standard	[	Flange size

Line of business

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

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

KANSAI Automation Co., Ltd.

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Nagoya Office: 3-31-27, Uchiyama, Chigusa-ku, Nagoya 464-0075, Japan
Tel 81-52-741-2432 Fax 81-52-741-1588

Kyushu Office: 1-2-39, Asano, Kokura Kita-ku, Kitakyushu 802-0001, Japan
Tel 81-93-511-4741 Fax 81-93-511-4580



Design, development and manufacture of level measuring sensors

代理店 / Agent

SCIGATE
Your Automation Partner



SCIGATE AUTOMATION (S) PTE LTD

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Tel: (65) 6561 0488

Fax: (65) 6562 0588

Email: sales@scigate.com.sg

Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm

* 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.