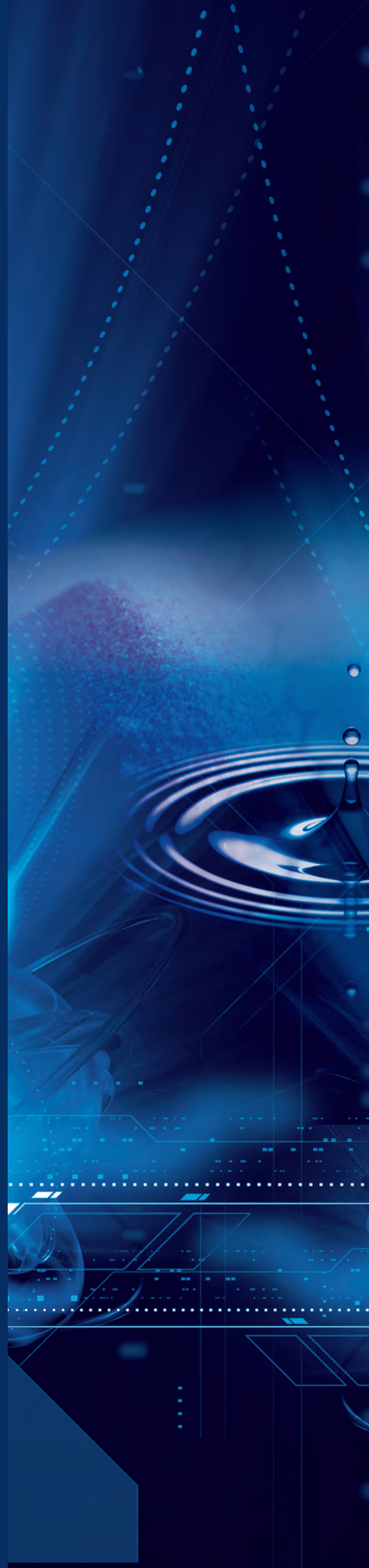


PRODUCTS GUIDE





HUMAN & TECHNO

We will pursue highest quality exploring new area where we can serve customers, with compound eyes sensing different needs and idea.

LOGY

Continuous level measurement

Continuous level measurement of liquids

P06~P08



Level sensor

Level sensor for liquids and solids

P09~P15



Peripheral and others

Peripheral equipment such as level controllers, sound flow sensor, and oil leak detector

P16



Continuous level measurement for liquids

Industries	GW	CG/CGM	PLD
	Guided pulse	Capacitive (phase detection)	Hydrostatic
Power, Gas	●	●	●
Public Facilities	●	●	●
Food, Pharmaceutical	●	●	●
Pulp and paper	●	●	●
Petrochemical, Chemical	●	●	
Cement, Glass	●	●	
Steel, Non Ferrous metal	●	●	●
Cars, Ships	●	●	
Medical precision equipment			
Electric, Electric equipment	●	●	●
Industrial equipment	●	●	●
page	6	6	7

Industries	PKD121/131	LA	MS	LR
	Pressure transmitter	Air bubbler system	Magnetostrictive	Resistive
Power, Gas			●	●
Public Facilities	●	●	●	●
Food, Pharmaceutical	●			
Pulp and paper	●	●		
Petrochemical, Chemical			●	●
Cement, Glass				
Steel, Non Ferrous metal		●		
Cars, Ships			●	●
Medical precision equipment				
Electric, Electric equipment	●	●	●	●
Industrial equipment	●		●	●
page	7	7	8	8

Point level sensor for solids

Industries	VL	VC	VF
	Vibrating	Compact vibrating	Pulsed vibrating
Power, Gas	●	●	●
Public Facilities	●	●	
Food, Pharmaceutical	●	●	●
Pulp and paper	●	●	●
Petrochemical, Chemical	●	●	●
Cement, Glass	●	●	●
Steel, Non Ferrous metal	●	●	●
Cars, Ships			
Medical precision equipment			
Electric, Electric equipment			
Industrial equipment	●	●	
page	9	9	9

Industries	VH	VM	VP	C5-B3/RB/R7
	High accuracy vibrating	Compact vibrating	Pulsed vibrating	Motor torque
Power, Gas	●			●
Public Facilities		●		●
Food, Pharmaceutical	●	●	●	●
Pulp and paper	●	●	●	●
Petrochemical, Chemical	●	●	●	●
Cement, Glass				●
Steel, Non Ferrous metal				●
Cars, Ships				
Medical precision equipment				
Electric, Electric equipment				
Industrial equipment	●	●	●	●
page	10	10	10	10

■ Capacitive level sensor

Industries	CG / CGS / CG65 / CG66	KSV-9N
	Level sensor	
Power, Gas	●	
Public Facilities	●	●
Food, Pharmaceutical	●	●
Pulp and paper	●	●
Petrochemical, Chemical	●	
Cement, Glass	●	
Steel, Non Ferrous metal	●	
Cars, Ships	●	
Medical precision equipment	●	●
Electric, Electric equipment	●	●
Industrial equipment	●	●
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■ Point level sensor for liquids

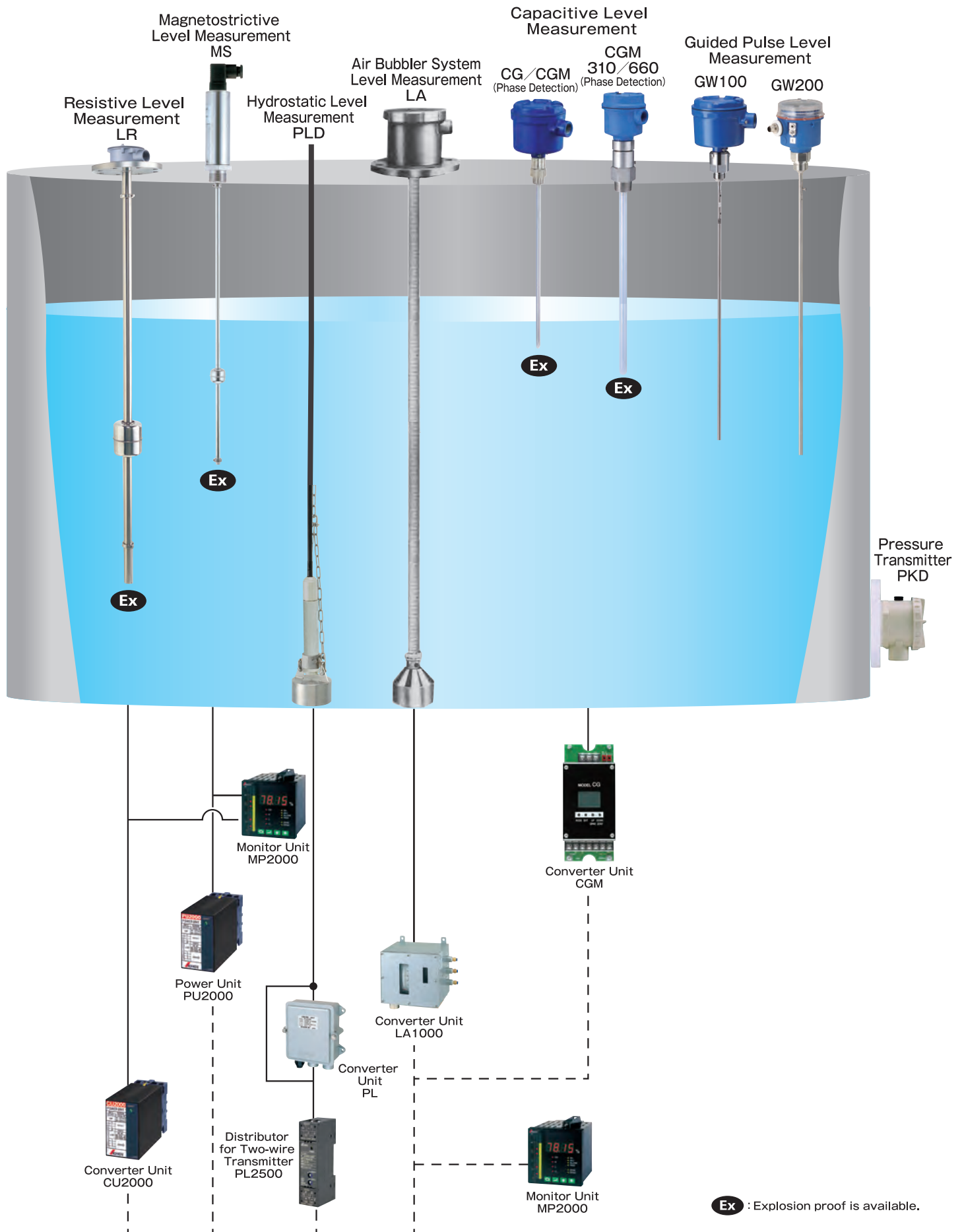
Industries	VQ	UZ	FR	OL/LS/SH	FM//HM	FQ
	Tuning fork	Ultrasonic wave	Reed switch	Compact	Magnet	Quick float
Power, Gas	●	●	●		●	●
Public Facilities	●		●		●	●
Food, Pharmaceutical	●		●	●	●	●
Pulp and paper	●		●		●	●
Petrochemical, Chemical	●	●	●		●	●
Cement, Glass						●
Steel, Non Ferrous metal		●	●		●	●
Cars, Ships			●	●	●	
Medical precision equipment	●			●		
Electric, Electric equipment	●		●	●	●	●
Industrial equipment	●	●	●	●	●	●
page	12	12	13	13	13	14

Industries	FT	FS	FP	FE/CE	MT10	FC
	Tilted float	Float	Pneumatic	Electrode	Conductive	Guarded float
Power, Gas	●	●	●	●		●
Public Facilities	●	●	●	●	●	●
Food, Pharmaceutical	●	●	●	●		●
Pulp and paper	●	●	●	●	●	●
Petrochemical, Chemical	●		●			
Cement, Glass	●	●	●	●		
Steel, Non Ferrous metal	●	●	●	●	●	●
Cars, Ships			●	●		●
Medical precision equipment						
Electric, Electric equipment	●			●	●	●
Industrial equipment	●	●	●	●		
page	14	14	15	15	15	15

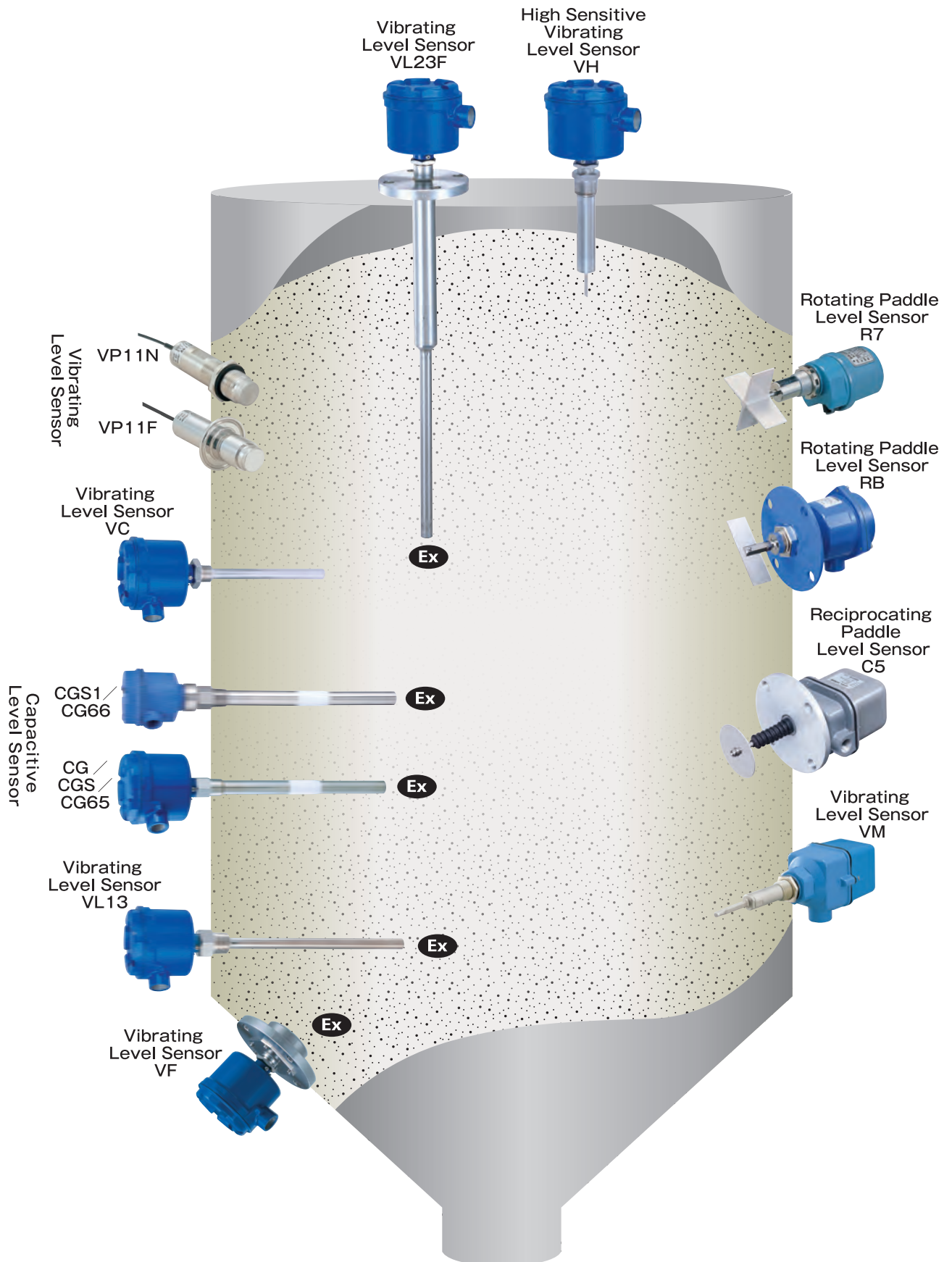
■ Peripheral and others

Industries	LZ	RE	AF10	MP
	Oil leak detector	Relay unit	Sound flow sensor	Level controller
Power, Gas	●	●	●	●
Public Facilities	●	●		●
Food, Pharmaceutical	●	●		●
Pulp and paper	●	●		●
Petrochemical, Chemical	●	●	●	●
Cement, Glass	●	●	●	●
Steel, Non Ferrous metal	●	●	●	●
Cars, Ships				
Medical precision equipment				
Electric, Electric equipment	●	●		●
Industrial equipment		●		●
page	16	16	16	16

Continuous level measurement for liquids

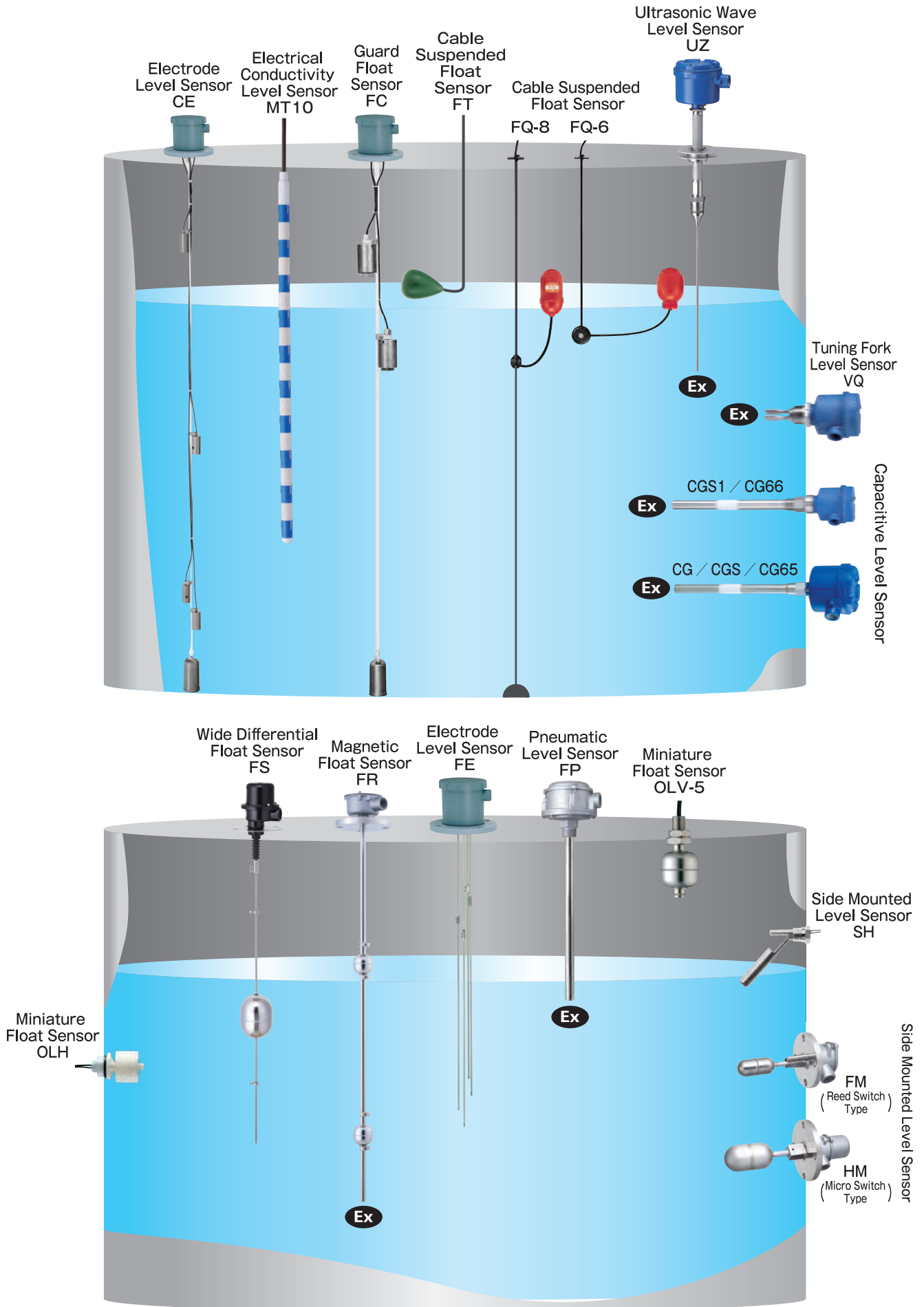


Point level sensor for solids



Ex : :Explosion proof is available.

Point level sensor for liquids

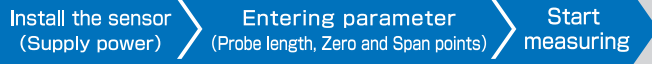


Ex : Explosion proof is available.

GW100 series for easy adjustment and robustness, GW200 series for a wide range of applications from built in sensor of device to large equipment and facility

● Easy adjustment with quick settings

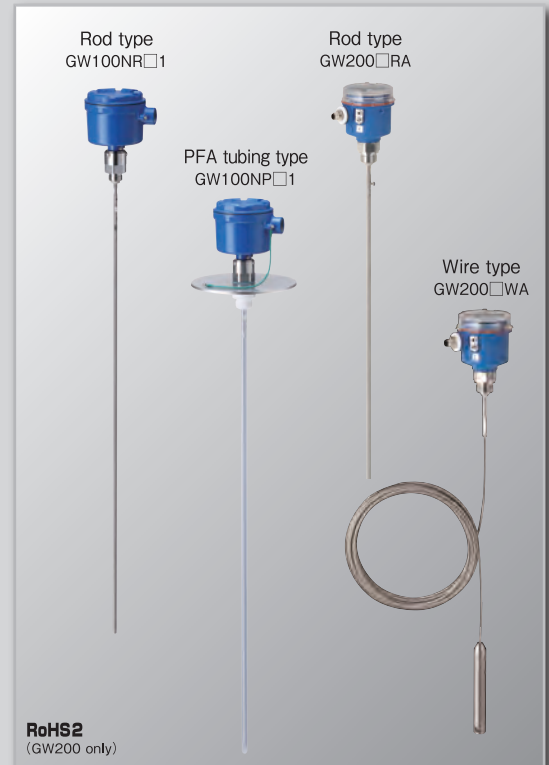
Start measuring by entering the actual dimensions of probe length, Zero and Span points in mm without filling actual liquids.



- Compactly designed housing (GW200 Series)
- Probe length 8m Max. (GW200 Series wire type)
- 5 points alarm output and backlit 4 digit LCD display (GW200 Series)
- Comatible with wide range of application by abundant variations
- Improve the resistance against build-up
- Escape from impact of obstacles and agitator in the tank (Cancellation of unnecessary waves)
- Connect with a cable with M12 connector (8 pins) (GW200 Series)
- Since the housing can rotate 300°, the mounting direction is free. (GW200 Series)

Features

Hygienic	available
Pressure	3.0MPa Max.
Temperature	+150°C Max.
Material	316 Stainless Steel /PEEK/FKM



Guided Pulse Level Measurement GW Series

Microcomputer realizes easy Zero/Span adjustment with push buttons, compatibility for a wide range of materials, and high accuracy measurement.

- Easy to operate. Dielectric constant compensation function available.
- Operation status displayed on the LCD. Suitable for various materials and offers high accuracy measurement.
- Separation type available
- Improve the resistance against build-up by Phase Detection

Features

Ex approval (TIIS)※1	Intrinsic safety : Ex ia IIC T5 X (CGM650/CGM6□□□)
Ex approval (JPEX)※2	Intrinsic safety : Ex ia IIB T5 Ga/Ex ia IIB T3 Ga (CGM660/CGM6□□□)
Hygienic	available
Pressure	3MPa Max.
Temperature	+180°C Max.
Material	304/316stainless steel, PFA (liner), etc.
Supply power	100~240V AC / 24V DC

※1 TIIS: Technology Institution of Industrial Safety ※2 JPEX: Ex Certification for Japan



Capacitive Level Measurement (Phase Detection) CG/CGM Series

Ideal for level measurement of water treatment facility, water reservoir, deep well, dam, and river

- Lightning surge protection: 13kV(1.2/50 μ s)
- Compact and robust, easy operation
- Measurement range : 0 to 100m
- Highly accurate measurement right after suspending it in a tank.

Features

Lightning surge protection	13kV(1.2/50 μ s)
Temperature	+50°C Max.
Material	SUS316/316L



Hydrostatic Level Measurement PLD Series

Plastic flange (PP, PVC, CPVC) versions for waste water or liquid tank
Metallic flange (304/316SS) versions for pure water application

- Flush mounting to prevent trapped water
- Plastic flange to allow lightweight design
- Various flange material options for specific applications
- Corrosion resistant plastic flanges eliminate the need for Teflon film sheet.

Features

Pressure	350kPa Max.
Temperature	+70°C Max.
Material	PP, PVC, 304 stainless steel, 316 stainless steel



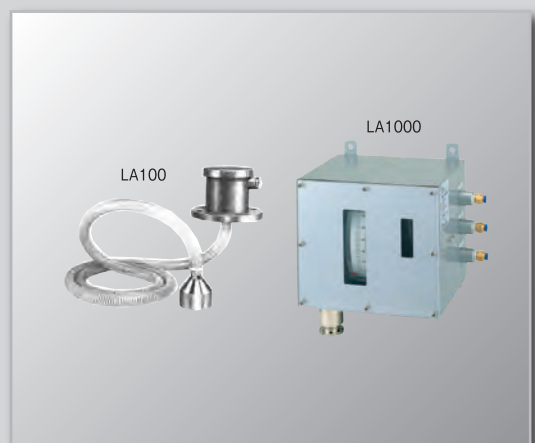
Pressure Transmitter PKD 121/131 Series

Ideal for level measurement of sludge tanks, highly viscous liquids, liquids containing suspended solids, and corrosive liquids.

- Air purge type sensor without moving parts. Offers stable measurement even for high viscosity liquids or liquids with suspended solids

Features

Pressure	Open tank
Temperature	Wetted material dependent
Material	304 stainless steel, PVC



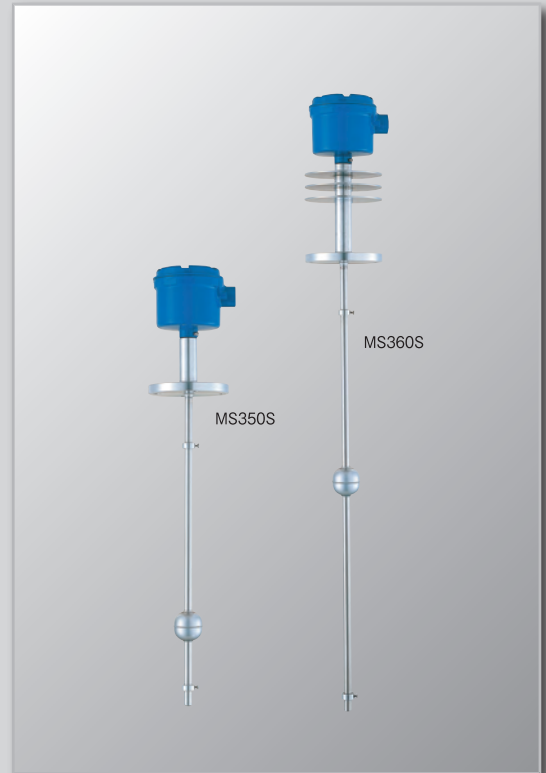
Air Bubbler System Level Measurement LA Series

Ideal for chemical tanks in pharmaceutical plants, blending tank of liquid materials for Drinks, or other applications requiring high accuracy

- Based on Wiedemann effect
- Range: 3900mm Max.
High accuracy: ± 1 mm or 0.1% F.S.
for stainless still float ± 2 mm
or 0.2% F.S. for resin float

Features

Ex approval (TIIS)	Intrinsic safety : Ex ia IIC T5 (MS650/670)
Hygienic	available
Pressure	3MPa Max.
Temperature	+150°C Max.
Material	304 / 316 / 316L stainless steel, Titanium, PVC, PP



Magnetostrictive Level Measurement MS Series

Ideal for level measurement of pressure vessels, chemical tanks including hydrochloric acid or sulfuric acid tanks, and pressurized tanks

- A wide range of wetted material options to suit specific applications
- Insensitive to pressure/temperature inside the tank, or specific gravity
- 4 to 20 mA DC output as standard for LR420 (Hall IC type)

Features

Ex approval (TIIS)	flameproof d2G4/d2G3
Hygienic	available
Pressure	2MPa Max.
Temperature	+120°C Max.
Material	304 / 316 / 316L stainless steel, Titanium, PVC, CPVC, PP



Resistive Level Measurement LR Series

Offers heat resistance of up to 150°C as standard for detection of solids, granular solids, bulk solids and deposit in liquids. (Option: +180°C Max.)

- Vibration based on coil impedance detection method
- Wide range models available including standard, separation, and explosion proof

Features

Ex approval (TIIS)	flameproof : Ex d IIB T4 intrinsic safety : Ex ia IIC T5
Hygienic	available
Pressure	2MPa Max.
Temperature	150°C (180°C Max. Option)
Material	304 / 316 stainless steel
Heat proof (Separation type)	+250°C Max. (Pressure: 1kPa Max. VLS22NT2/Ft2)



Vibrating Level Sensor VL Series

Compact and robust vibrating level sensor with detection part of 175mm

- Welded detection part is robust and offers high sealing property.
- Heat resistance of up to 150°C as standard
- Universal ac power supply

Features

Hygienic	available
Pressure	2MPa Max.
Temperature	+150°C Max.
Material	304 stainless steel, 316 stainless steel



Vibrating Level Sensor VC Series

Ideal for low limit detection of medium to large hoppers

- Robust flush mounted model with vibration plate of 1mm.
- Vibration based on pulse vibration method
- Wide sensitivity adjustable range
- Universal ac power supply
- Remote installation available (VFS series)

Features

Ex approval (TIIS)	intrinsic safety : Ex ia IIC T5
Pressure	100kPa Max.
Temperature	+100°C Max.
Material	304 stainless steel



Vibrating Level Sensor VF Series

Ideal for fine powder of minimum bulk density 0.02

- Level control for solids with low bulk density
- Utilizes a two point supported vibration board

Features

Pressure	1 MPa Max.
Temperature	+80°C Max.
Material	304 stainless steel, 316 stainless steel, etc.



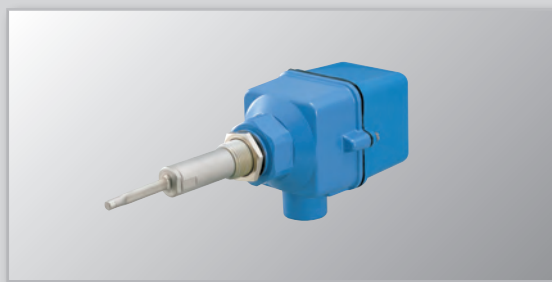
High Sensitive Vibrating Level Sensor **VH Series**

Specialized for solid and granular solid measurement. Ideal for integration into medium to small powder machinery.

- Commissioning with actual material not needed. Operational right after power up
- Suitable for measurement of any solids and granular solids
- Switching high/low limits require pushing only one button. Offers failsafe function
- Compact and low cost

Features

Pressure	1 MPa Max.
Temperature	+60°C Max.
Material	304 stainless steel, ADC12, etc.



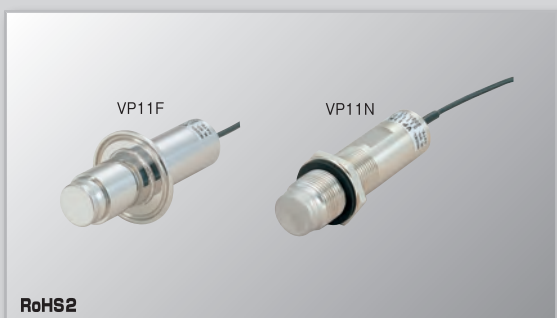
Vibrating Level Sensor **VM Series**

Specialized for solid and granular solid measurement. Ideal for integration into medium to small powder machinery.

- Compact and light weight. Easy mounting with threaded connection
- Sensitivity adjustable to suit measured material

Features

Hygienic	available
Pressure	500kPa Max.
Temperature	+60°C Max.
Material	304 / 316 stainless steel



Vibrating Level Sensor **VP Series**

C5 · B3/RB:

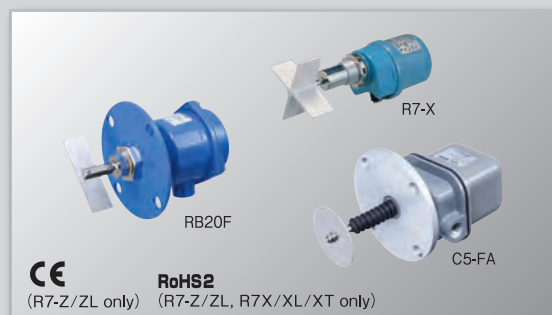
Suitable for a wide range of applications from solids, granular solids to bulk solids such as coals and lime stones.

R7:

Ideal for plastics processing equipment, rice milling machine, grain treatment facilities, etc.

Features

Pressure	20kPa Max.
Temperature	+300°C Max.
Material	304 stainless steel, steel, PC, etc.



CE
(R7-Z/ZL only) **RoHS2**
(R7-Z/ZL, R7X/XL/XT only)

Motor Torque Level Sensor **C5·B3/RB/R7 Series**

Measures viscous material as well as liquids and solids

- Multiple options for oscillation methods, detection circuits and electrodes offer various functions (auto correction function, static electricity protection, buildup prevention) to suit a wide range of applications
- DC powered model available (24V DC)

Features

Ex approval (TIIS)	intrinsic safety : Ex ia IIC T5 X (CG65/CGS6□□□series)
Ex approval (JPEX)	intrinsic safety : Ex ia IIB T3/T5 Ga (CG66/CGS6□□□series)
Hygienic	available
Pressure	3MPa Max.
Temperature	+400°C Max.
Material	304 / 316 stainless steel, PE, PTFE, etc.



CG/CGS/CG65/CG66 (phase detection) Series

Ideal for integration into small equipment or mass production systems

- Multiple options for oscillation methods, detection circuits and electrodes offer various functions (auto correction function, static electricity protection, buildup prevention) to suit a wide range of applications

Features

Pressure	1.57MPa Max.
Temperature	+70°C Max.
Material	304 stainless steel, POM



Capacitance Level Sensor KSV-9N Series

Approved as intrinsically safe, own development, and made in Japan

- Excellent durability and corrosion resistance for all liquids
No adjustment is required even if the type of liquid changes, and it can be used without adjustment after installation.
- AC / DC Free power is available (2 wire / Relay type)
- The housing can rotate 330 degrees, the mounting direction is free

Features

Ex approval (JPEX)	intrinsic safety : Ex ia IIB T3 Ga (VQ63 Series) intrinsic safety : Ex ia IIB T5 Ga (VQ65 Series)
Hygienic	available
Pressure	6MPa Max.
Temperature	-40 to 150°C (VQ20 Series)
Material	316L stainless steel, BNI-2 (Nickel based alloy), ECTFE coating



Tuning Fork Level Sensor VQ Series

Ideal for low and high temperature and high pressure liquids level control

- Welding integrated structure for mounting part and detection part
- No moving part at the detection parts, outstanding durability with stainless steel rod

Features

Ex approval (TIIS)	intrinsic safety : Ex ia IIC T5 (UZ600 / 6000 Series)
Pressure	100MPa Max.
Temperature	High temperature: 350°C Max. Low temperature: -200°C Minimum
Material	304 / 316 stainless steel, titanium, PE, PTFE



Ultrasonic Wave Level Sensor UZ Series

Ideal for point level detection of water, oil, hydrochloric acid, sulfuric acid and other chemicals

- Control for alarms of up to 7 points, solenoid valves and pumps
- No affection from pressure or temperature inside the tank
- Various wetted parts materials and designs available to suit specific applications

Features

Ex approval (TIIS)	flameproof : d2G4/d2G3 (FR5□□Series)
Hygienic	available
Pressure	2MPa Max.
Temperature	+180°C Max.
Material	304/316/316L stainless steel, PVC, CPVC, PP, fluorine resin



Magnetic Float Sensor FR Series

Ideal for integration into small mass production systems

- Ultra-compact and low cost
- Stable operation and high reliability
- Alarms for high and low limits and other control available

Features

Hygienic	available
Pressure	2MPa Max.
Temperature	+120°C Max.
Material	304/316/316L stainless steel, PVC, CPVC, PP, fluorine resin



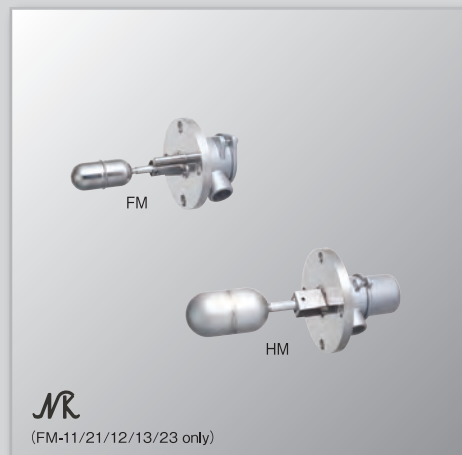
Miniature Float Sensor OL/LS/SH Series

Horizontally mounted, ideal for control of bilge water and oil tanks

- Easy handling. Most compact and lightweight among horizontal mounted sensors
- Insensitive to pressure/temperature in the tank or specific gravity
- Interface detection available (FM)
- Operational on pressure tanks of up to 3 MPa (HM)

Features

Hygienic	available
Pressure	3MPa Max.
Temperature	+120°C Max.
Material	304/316 stainless steel, NBR foam (Only float)



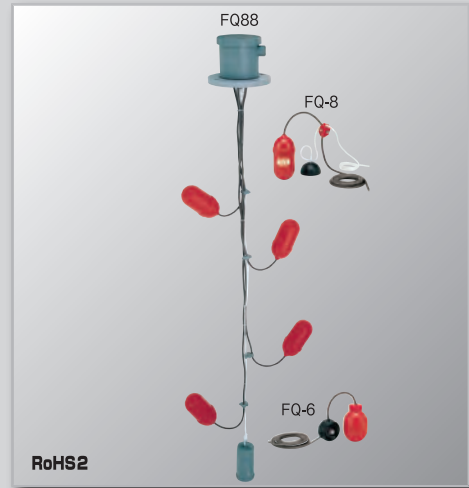
Magnetic Level Switch FM/HM Series

Ideal for pump control of water/wastewater facilities, tanks and pits in effluent treatment facilities

- Latching relay offers control of both high and low limits by one unit
- Insensitive to suspended solids
- Low cost solution offering stable measurement and easy handling

Features

Pressure	200 kPa Max.
Temperature	+70°C Max.
Material	ABS, PP



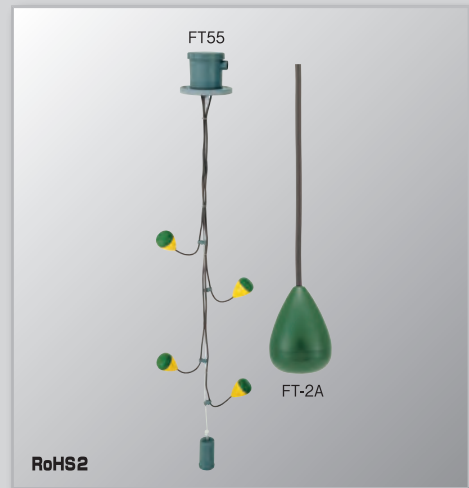
Cable Suspended Float Sensor FQ Series

Ideal for pump control of water/wastewater facilities, tanks and pits in effluent treatment facilities

- Integrates a micro-switch on the sensor contact
- Offers high corrosion resistance, long lifetime and always stable operation
- Suitable for a wide range of applications

Features

Pressure	200 kPa Max.
Temperature	+50°C Max.
Material	ABS



Cable Suspended Float Sensor FT Series

Ideal for fuel tanks of hydraulic unit or boiler

- Single unit controls both high and low limits
- Latching relay available
- Controls solenoid valves directly without an interlock circuit

Features

Pressure	open tank
Temperature	+80°C Max.
Material	304 stainless steel



Wide Differential Float Sensor FS Series

Ideal for adhesive or corrosive liquids, or liquids with suspended solids

- Has minimum moving parts and offers long life time
- Integrated high quality micro-switch offers stable operation
- Compact and easily mounted. Ideal for integration into mechanical equipment

Features

Ex approval (TIIS)	flameproof d2G4 (FP5 10)
Pressure	open tank (water depth up to 5m)
Temperature	+70°C Max.
Material	diaphragm: CR, FKM



Pneumatic Level Sensor **FP Series**

Ideal for level measurement in water treatment plant and of large tanks

- Titanium and Hastelloy equivalent material used for standard electrodes. Suits liquid applications from purified water to hydrochloric acid and sulfuric acid. (FE)
- Cable (electrode band) type offers easy handling and multiple detection points. (CE)

Features

Temperature	+50°C Max. (Stainless steel version: 100°C Max.)
Material	Electrode: 316 Stainless Steel, Hastelloy equivalent, Titanium



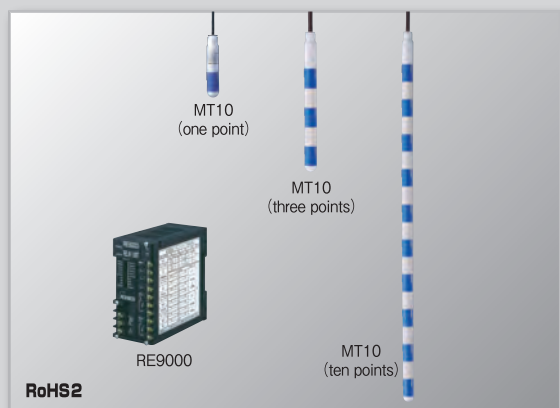
Electrode Level Sensor **FE/CE Series** (Electrode type)

Ideal for level monitoring or pump control of relay pump stations in manhole pump stations

- Almost no affection from buildup of scum or suspended solids
- Easily mounted. Offers long lifetime and a wide sensitivity adjustment range

Features

Temperature	+40°C Max.
Material	PE, 316 stainless steel, PVC



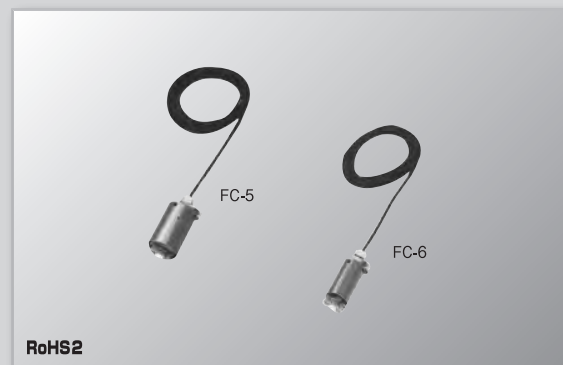
Electrical Conductivity Level Sensor **MT10 Series**

Ideal for water treatment facilities or when space above tank is limited

- Cable suspended type offering multiple detection points
- Detection points and signal direction can be changed on site
- Easy maintenance and service

Features

Pressure	200 kPa Max.
Temperature	+50°C Max.
Material	PVC, PP



Guard Float Sensor **FC Series**

Ideal for oil leak detection in a pit inside a tank dike or a drainage sump pit

- Detection sensitivity adjustment range : 10 ~ 100 μ S/cm
- Impedance measurement technology minimizes influence from buildup of conductive material
- Two-wire system to utilize existing cabling
- Sensor assembly easily disassembled to simplify float replacement

APPLICATIONS

Oil leak detection in cogeneration facilities

- Sump pit in a tank dike
- Water-oil separation tank in a waste water facility

Factory drains

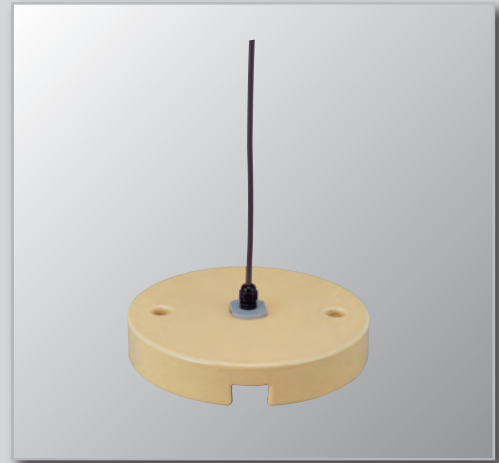
- Drainage pit

Ship applications

- Cooling water tank for internal combustion engine

Oil refinery

- Oil terminals
- Oil leak detection in offshore platforms and tank yards



Oil Leak Detector LZ Series

RE7000:

Plug in installation device with latching relay function. Ideal for amplification of low rating contacts

RE7500:

Plug in relay unit with independent two circuits (two input/output circuit) and sensitivity switches, space and cost saving solution

- One unit controls two alarm points(RE7000)
- Independent two circuits (two input/output circuit) on one plug in unit(RE7500)
- Easy plug in installation. Up to 1 km separation from the sensor.



Relay unit RE Series

Ideal for clog detection of pipe for solids, and error detection of hopper discharge

- Sensor and converter in one enclosure
- Adjustment is easy with non-contacting technology



Sound Flow Sensor AF10 Series

With MPU, ideal for level display, volume calculation and signal conversion

- 51 segment bar graph and seven segment display
- Accepts 100 to 240 V AC power supply



Level Controller MP Series

NOHKEN INC.

15-32, Hiroshiba-cho, Suita-City, Osaka,
564-0052, Japan

Tel: +81-6-6386-8149 Fax: +81-6-6386-8307

E-mail : mkt01@nohken.co.jp

URL : <https://www.nohken.com/en/>

Dealers

Please note that the specifications are subject to
changes without notice for product improvement
or other reasons.