

## MAGNETIC LEVEL GAUGE M-SERIES

The M series magnetic level gauge, level switch consist of an un-magnetic chamber, magnetic float and with a built-in magnet strips, a vertical chamber connected to a tank with two end. The float rises or falls in the chamber. It turns to the indicative strips to provide an indication of the tank level.

This series also provides accessories such as switch and measuring sensor with converter to turn to a 4~20mA (2 wires) DC output signal.

To provide a liquid level control function.

### Technical Data

**Application for chemical and petrol chemical process, boilers and other industries.**

**Connection:** From 1/2" to 3" flange type, JIS, ANSI, DIN rating available, special size on request

**Pressure limited:** 10 kg/cm<sup>2</sup> for plastic material type (P.V.C, P.P, PVDF)  
20 kg/cm<sup>2</sup> for standard type  
up to 40 kg/cm<sup>2</sup> on request

**Temperature limited:** 0~50°C for plastic chamber type  
-40~150°C for standard type  
-40~250°C for special type

**Center to center length:** Maximum 5500mm

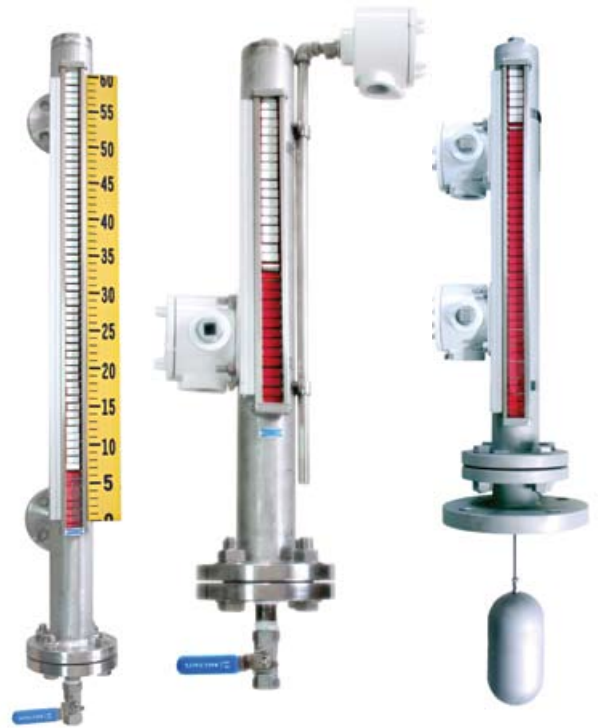
**Accuracy:** ±4mm (Transmitter: ±12mm standard; ±6mm on request)

**Indicating strips:** Aluminum, Plastic (PBT) available, the colors are red and white

**Specific gravity:** 500~2900 kg/m<sup>3</sup>

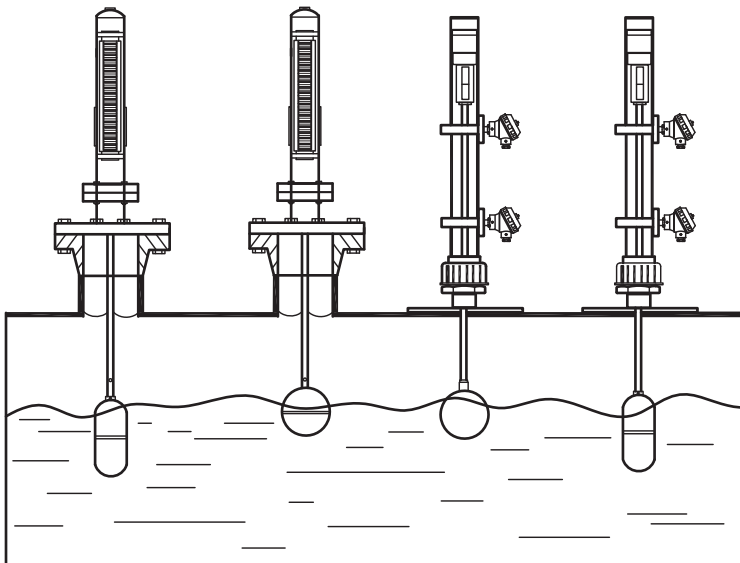
**Indicating gauge orientation adjustable**

**Chamber size:** ø50 or ø60

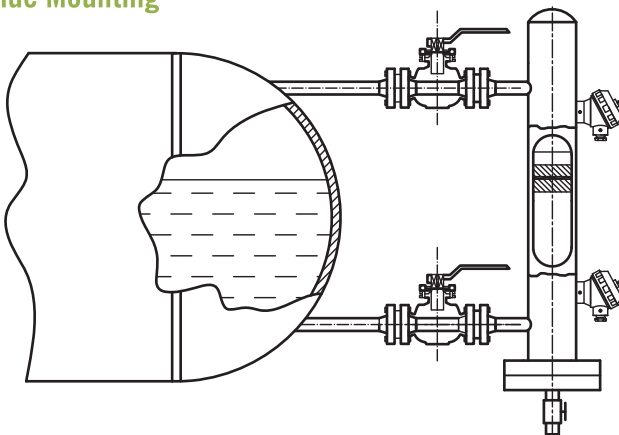


### Installation

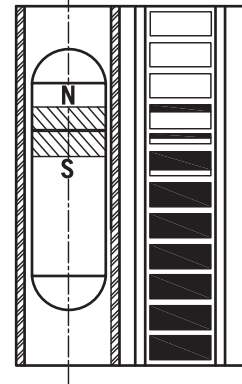
#### (A) Top Mounting



#### (B) Side Mounting



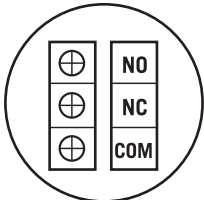
### Principle



## Switch Function

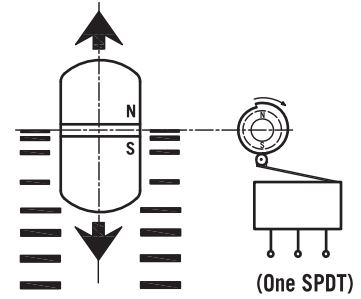
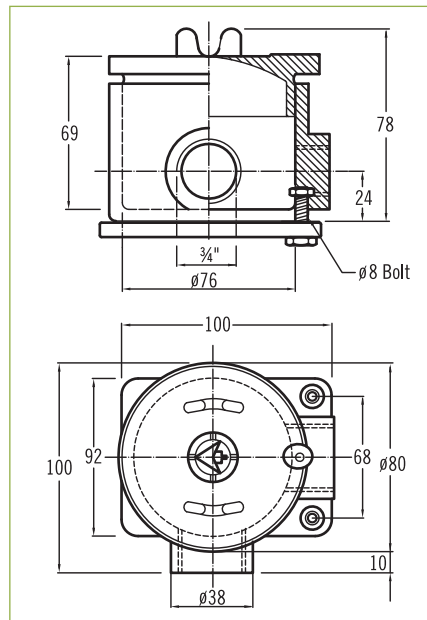
### Micro Switch Type

**Protection:** Explosion proof, EExdIICT6 IP65  
**Micro Switch:** SPDT; SPDT x 2 available  
**Rating:** 3A/250VAC, 3A/30VDC, 0.4A/125VDC



Wire Drawing

### Dimensions



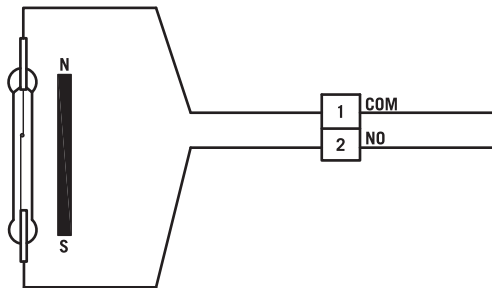
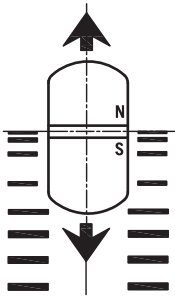
Option: 2 SPDT switch on request

NC	6
NO	5
COM	4
NC	3
NO	2
COM	1

(Two SPDT)

### Reed Switch Type

**Rating:** 250VAC 1A SPDT



### Transmitter Type

**Potentiometer I/P**

**Output Signals:** 4~20mA DC, Load resistance  $R_L$  (max)=( $V_s-10$ )x50 $\Omega$

**Input Range:** 100 $\Omega$  to 45K $\Omega$  (3-Wire)

**Output Adjustment Range:** Zero adjustment 0~15%; Span adjustment -20% ~ +60% FS

**Accuracy:**  $\pm 0.1\%$  F.S (at 23 $^{\circ}$ C)

**Linearity:**  $\pm 0.1\%$  F.S

**Supply Voltage:** 10~30V DC

**Temp. Coefficient:**  $\pm 0.02\%$ / $^{\circ}$ C

**Operating Temp.:** -5 ~ +70/ $^{\circ}$ C

**Operating Humidity:** 0~90% RH

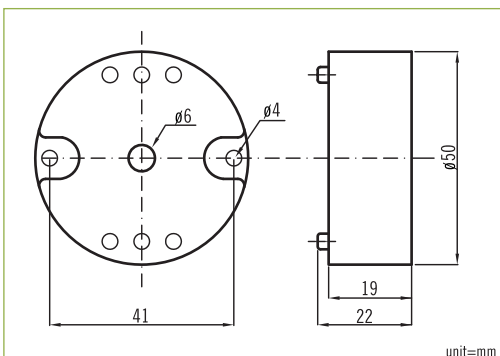
**Socket and Terminal:** Screw terminals (stainless steel screw)

**Installation:** Head and wall mounting

**Case Material:** Nylon 6 resin (Black)

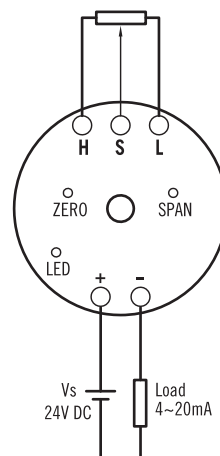
**Weight:** about 50 grams

### Dimensions



GL-T

### Socket And Terminal



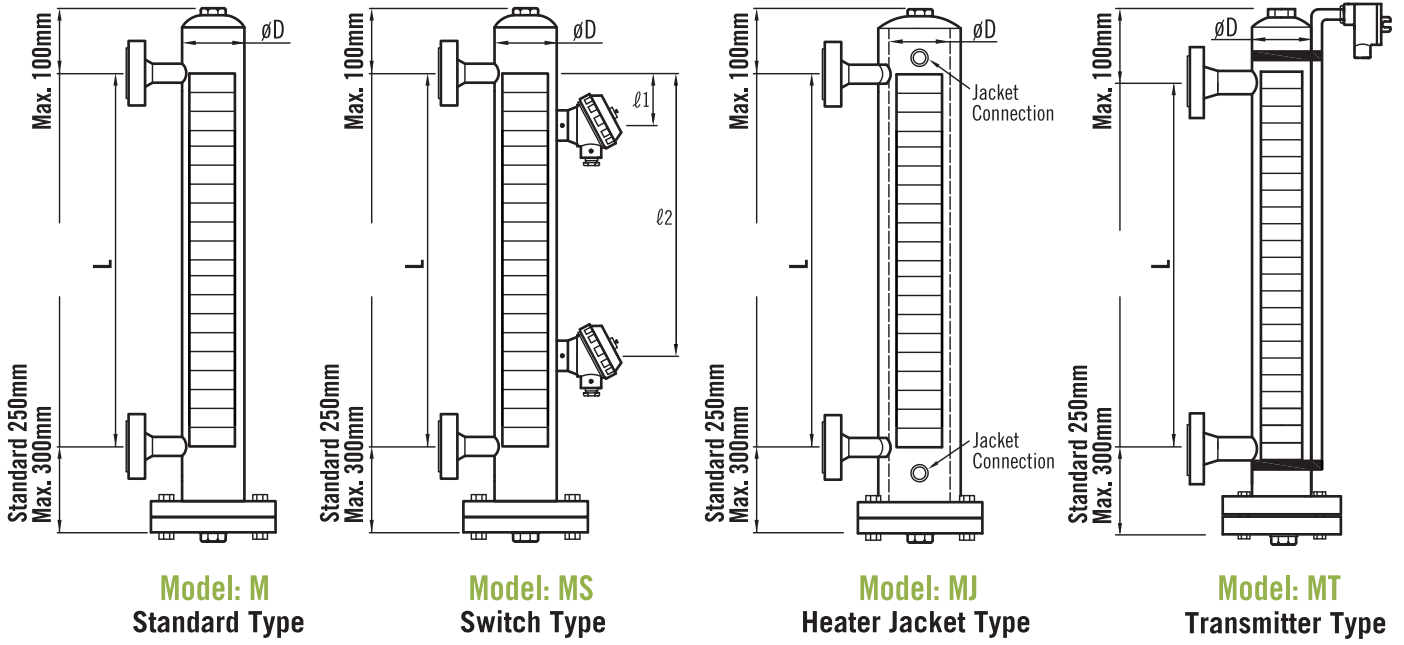
### Features

- ISO 9001 and CE certificate
- High immunity to external noise
- LED indication and DC power polarity protection
- High reliability, lasting durability and low cost

### Application

- Position of valve, damper and other devices

## M Standard Type—Side Mounting Series

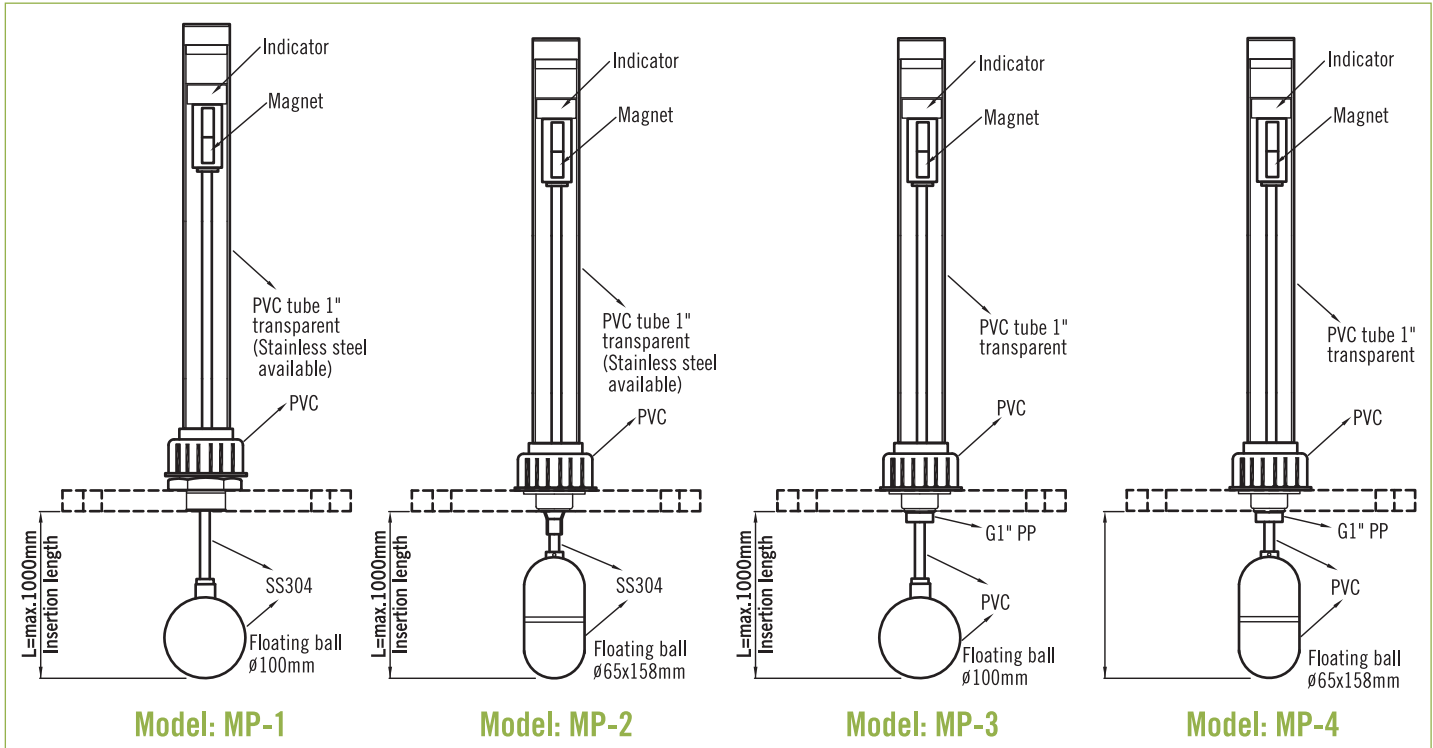


\*D=ø50 or ø60

### Ordering Information

M Type	Code	Model
	M	Standard type
		MS Switch type
		MJ Heater jacket type
		MT Transmitter Type
	<b>Code</b>	<b>Connection</b>
	A	½" B ¾" C 1" D 1½" E 2" F 3" G Option
	<b>Code</b>	<b>Connection Rating</b>
		(1) PTM (2) NPTM (3) JIS 10K (4) JIS 20K (5) ANSI 150# (6) ANSI 300# (7) PN16 (8) PN40 (9) Option
	<b>Code</b>	<b>Material of Wetted Parts</b>
	A	SS304 B SS316 C SS316L D P.V.C E P.P F PE G PVDF H Option
	<b>Code</b>	<b>Material of Indicating Case</b>
	1	Aluminum 2 SS304
	<b>Code</b>	<b>Material of Indicating Strips</b>
	A	Plastic B Aluminum C Brass
	<b>Code</b>	<b>Switch Type</b>
	1	Reed Switch 2 Micro Switch 3 Option 0 Without Switch
	<b>Code</b>	<b>Switch Point</b>
		(A) 1 (B) 2 (C) 3 (D) 4 (0) Without
	<b>Code</b>	<b>Transmitter Type</b>
		(1) 4~20mA Transmitter (2) Without
	<b>Code</b>	<b>Scale Plate</b>
	A	Yes B Without
	<b>Code</b>	<b>Switch or Transmitter Housing</b>
		(1) Weather proof IP65 (2) Explosion proof
	<b>Code</b>	<b>Specific Gravity</b>
		Please directly fill out the Sp. Gr. in the of liquid order code.
	<b>Code</b>	<b>Setting Point &amp; Switch Acting Functions</b>
		Please fill in the requested length and float rised ↑ ON or fall down ↓ ON
		ℓ1= ___mm <input type="checkbox"/> ON ℓ2= ___mm <input type="checkbox"/> ON
		ℓ3= ___mm <input type="checkbox"/> ON ℓ4= ___mm <input type="checkbox"/> ON
<b>M Type</b>		<b>Complete Ordering Code</b>

## MP Type—Top Mounting Transparent Series



Model: MP-1

Model: MP-2

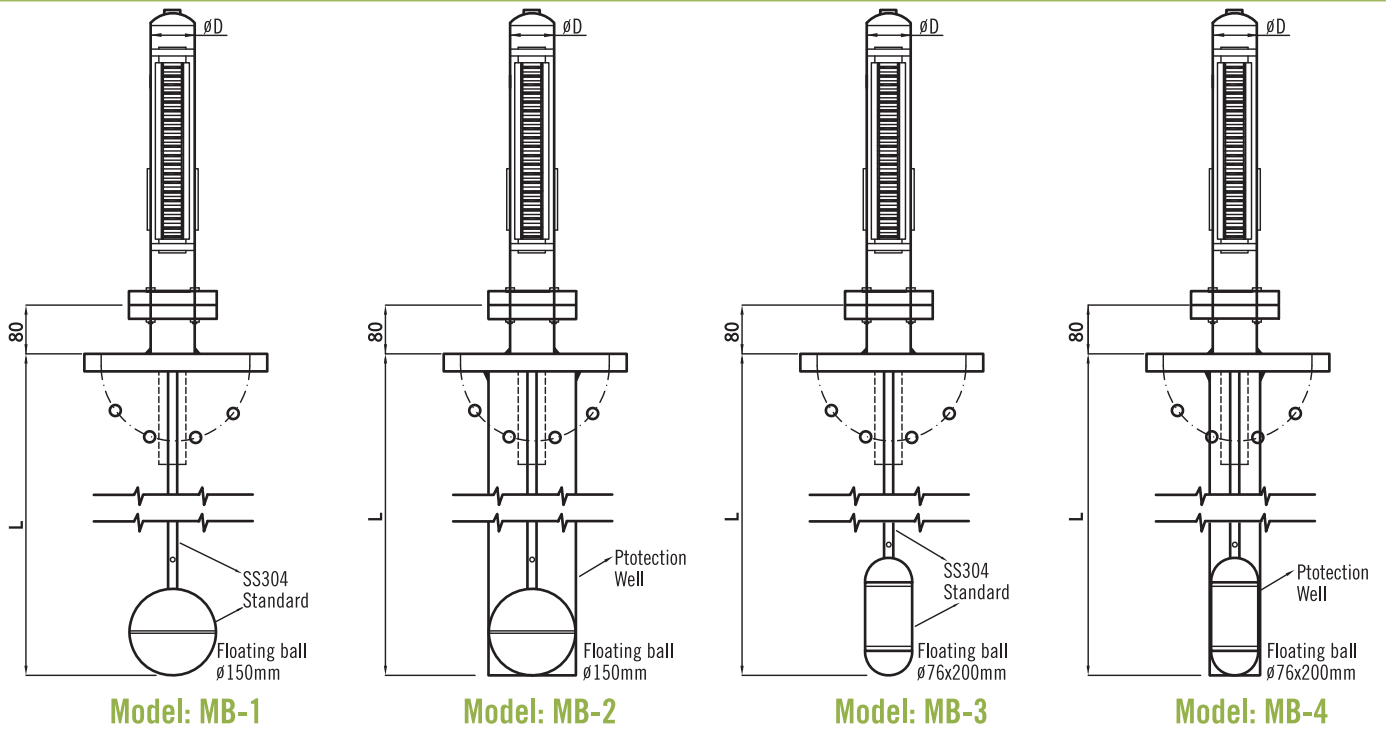
Model: MP-3

Model: MP-4

## Ordering Information

MP Type	Code	Model
		MP-1 MP-2 MP-3 MP-4
		<b>Code Connection</b>
	A	3" B 4" C Option
		<b>Code Connection Rating</b>
		(1) PTM (2) NPTM (3) JIS 10K (4) ANSI 150# (5) PN16
		<b>Code Material of Wetted Parts</b>
	A	SS304 B SS316 C SS316L D P.V.C E P.P F PE G PVDF H Option
		<b>Code Material of Indicating Case</b>
	1	P.V.C tube transparent 2 Blind SS304 3 Blind SS316
		<b>Code Switch Type</b>
	1	Reed Switch 2 Micro Switch 3 Option 0 Without Switch
		<b>Code Switch Point</b>
		(A) 1 (B) 2 (C) 3 (D) 4 (0) Without
		<b>Code Transmitter Type</b>
		(1) 4~20mA Transmitter (2) Without
		<b>Code Scale Plate</b>
	A	Yes B Without
		<b>Code Switch or Transmitter Housing</b>
		(1) Weather proof IP65 (2) Explosion proof
		<b>Code Specific Gravity</b>
		Please directly fill out the Sp. Gr. in the of liquid order code.
		<b>Code Setting Point &amp; Switch Acting Functions</b>
		Please fill in the requested length and float rised ↑ ON or fall down ↓ ON
		ℓ1= ___mm <input type="checkbox"/> ON ℓ2= ___mm <input type="checkbox"/> ON
		ℓ3= ___mm <input type="checkbox"/> ON ℓ4= ___mm <input type="checkbox"/> ON
MP Type		Complete Ordering Code

## MB Type—Top Mounting Series



\*D=ø50 or ø60

### Ordering Information

MB Type	Code	Model														
		MB-1	MB-2	MB-3	MB-4											
		<b>Code</b>	<b>Connection</b>													
	A	3"	B	4"	C	Option										
		<b>Code</b>	<b>Connection Rating</b>													
			(1) JIS 10K (2) JIS 20K (3) ANSI 150# (4) ANSI 300# (5) PN16 (6) PN40 (7) Option													
		<b>Code</b>	<b>Material of Wetted Parts</b>													
	A	SS304	B	SS316	C	SS316L	D	P.V.C	E	P.P	F	PE	G	PVDF	H	Option
		<b>Code</b>	<b>Material of Indicating Case</b>													
	1	Aluminum	2	SS304												
		<b>Code</b>	<b>Material of Indicating Strips</b>													
	A	Plastic	B	Aluminum	C	Brass										
		<b>Code</b>	<b>Switch Type</b>													
	1	Reed Switch	2	Micro Switch	3	Option	0	Without Switch								
		<b>Code</b>	<b>Switch Point</b>													
			(A) 1 (B) 2 (C) 3 (D) 4 (0) Without													
		<b>Code</b>	<b>Transmitter Type</b>													
			(1) 4~20mA Transmitter (2) Without													
		<b>Code</b>	<b>Scale Plate</b>													
	A	Yes	B	Without												
		<b>Code</b>	<b>Switch or Transmitter Housing</b>													
			(1) Weather proof IP65 (2) Explosion proof													
		<b>Code</b>	<b>Specific Gravity</b>													
			Please directly fill out the Sp. Gr. in the of liquid order code.													
		<b>Code</b>	<b>Setting Point &amp; Switch Acting Functions</b>													
			Please fill in the requested length and float rised ↑ ON or fall down ↓ ON													
			l1=	mm	□	ON	l2=	mm	□	ON						
			l3=	mm	□	ON	l4=	mm	□	ON						
<b>MB Type</b>																<b>Complete Ordering Code</b>