

OUTLINE

SPT7200N series is a magnet float type level gauge by which liquid level and temperature in tank can be measured.

Liquid level can be detected by this gauge, by activating reed switch completely sealed in guide pipe by the magnet in the float.

The detected resistance is converted into a current signal and be outputted to a remote indicator and/or data logger.

The temperature sensor up to 2 probes can be assembled, and the signal can be outputted after converting it into 4-20mA current signal same as level data.

FEATURES

- ❑ Compact and Cost Saved Design.
Rationally designed to comply with customers' requirement
- ❑ Output signal can be integrated into same signal.
In case of the current signal, Ballast Tank Level Gauge is used for Fuel Tank Level Gauge, and the signal system can be integrated.
- ❑ A division type level gauge will be also available.
The guide pipe divided into two or more pieces corresponding to complicated tank structure and an immersed type gauge in liquid tank can also be manufactured.



MODEL CODE

SP		7200N				Specifications	
Function of temperature measurement						Not provided temperature measurement	
	T					Provided temperature measurement	
Intrinsically Safe Type			W			Non Intrinsically Safe Type	
			S*				Intrinsically Safe Type
Quantity of temperature sensor						Not provided temperature sensor	
			-1R				1 point provided temperature sensor
			-2R				2 points provided temperature sensor
Temperature of Cargo liquid						Standard specification	
			H				High temperature specification (MAX.125°C)

*TZB-051 is used for each barrier of level sensor and temperature sensor.

STANDARD SPECIFICATION

- Measurable Object : Liquid Level and Temperature (Density Range: 0.6 to 2 g/cm³)
- Measurement System : Magnet Float for Level Thermal Resistance Type, Pt100 RTD
- Applicable Pressure : Atmosphere Pressure as Standard
It can be produced sensor so as to correspond to its head pressure for immersed type level sensor.
- Measurable Range : Maximum 30 m for level -25 to 125°C for temperature
(The operating temperature differs depending on the number of temperature sensors.)

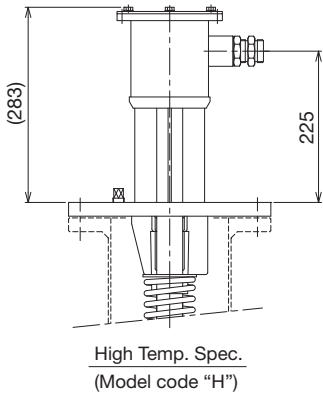
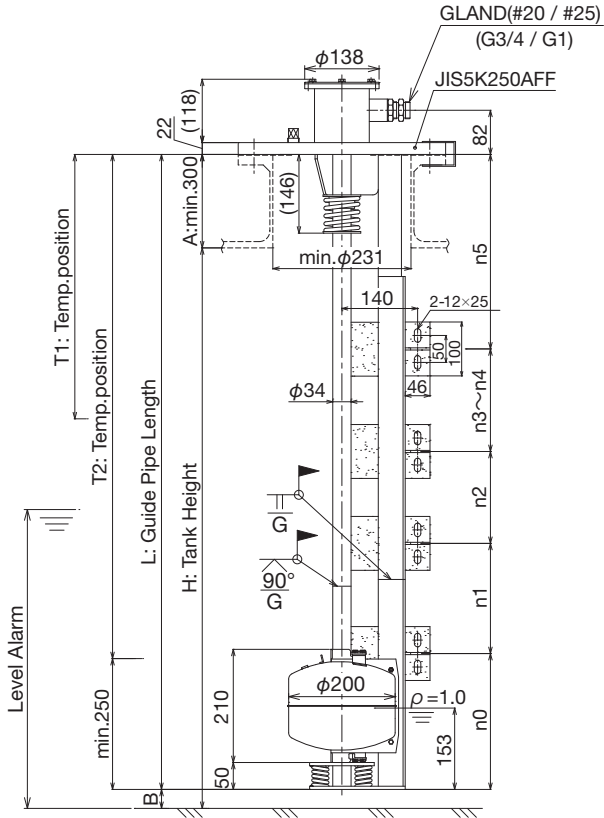
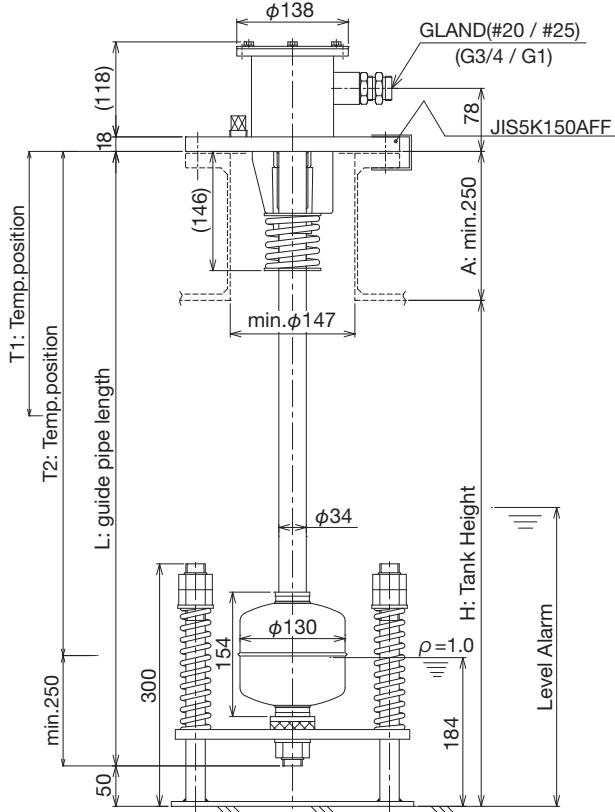
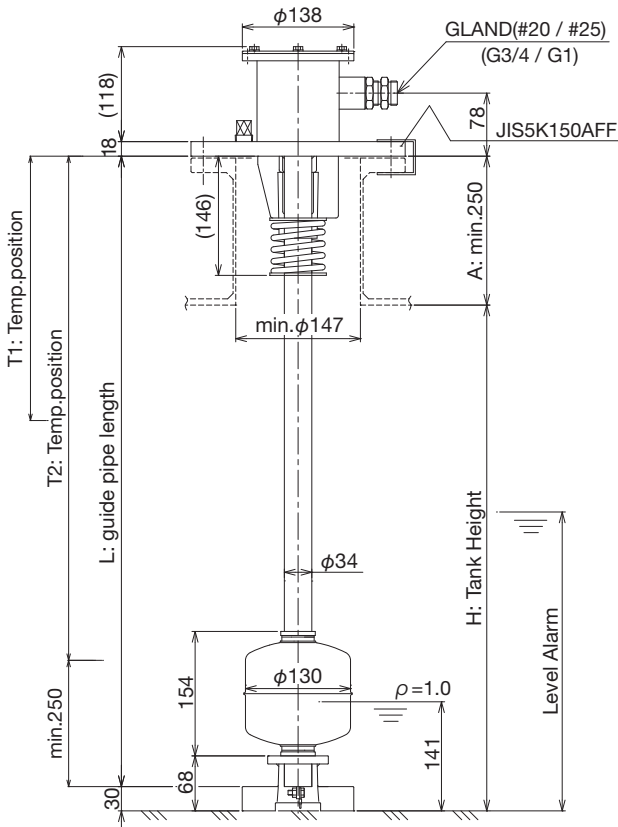
Table of temperature class and No. of temperature sensors

Temp. class	Process temperature range		
	Only level	1 level & 1 temp.	1 level & 2 temp.
T6/T80°C	-25°C to +60°C	—	—
T5/T150°C	-25°C to +95°C	-25°C to +95°C	-25°C to +80°C
T4/T200°C	-25°C to +125°C	-25°C to +125°C	-25°C to +85°C

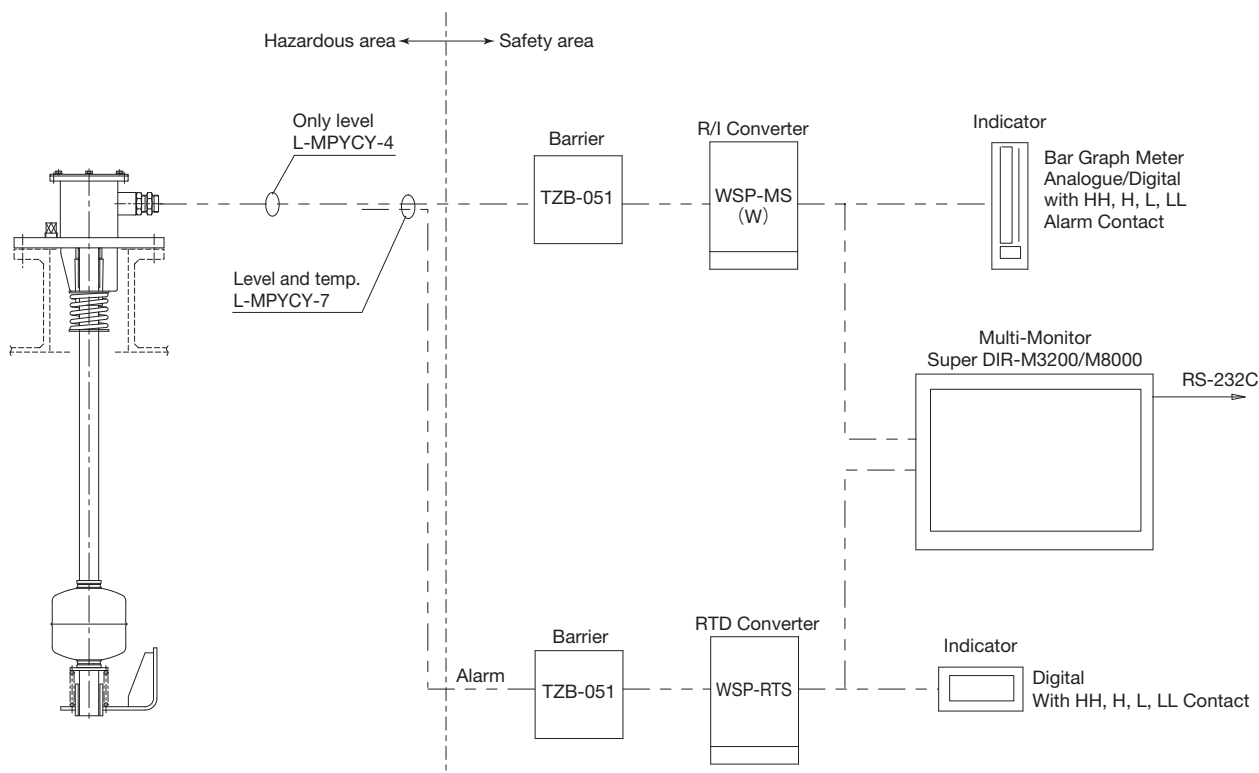
- Accuracy : Level sensor : ±20 mm
Temperature sensor : ±1°C
Remote indicator and R/I converter are also added.
- Display System : Analogue or Digital +Analogue for level Digital for temperature
(It is available to supply display unit with alarm setting future.)
- Construction : Protection grade, IP66/IP67
Explosion proof Grade : Ex ia IIC T6...T4 Ga
Ex ia IIIC T80°C, T150°C, T200°C Da
- Installation : Fitting Flange : JIS 5K 150AFF
Guide pipe with support : JIS 5K 250A
- Material : Guide Pipe : SUS304 (Standard), SUS316, SUS316L
Fitting Flange : SUS304 (Standard), SUS316, SUS316L
Float : SUS316L (Standard)

CONSTRUCTION AND DIMENSION

Sample of Construction



SYSTEM CONFIGURATION



OTHER INSTRUMENTS FOR MARINE APPLICATION

Besides SPT7200N, the following level gauges and relevant instruments for marine applications are available from Tokyo Keiso.

- SP-1200 : Flow Magnet Type Level Gauge
- SPT3500N : Magnet Float Type Level Gauge with using Contact less Hall IC
- PL3700 : Pressure Sensor using for Ullage Space in Tank and/or Gas Return Line
- MIA-LIDEC : Acoustic Type High level, Overfill Alarm and/or Dryness Sensor
- FP-7091S-T : Float Type High and Overfill Alarm
- FB-5000, FB-7000 : Float Type Bilge Level Alarm

* Specification is subject to change without notice.

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