

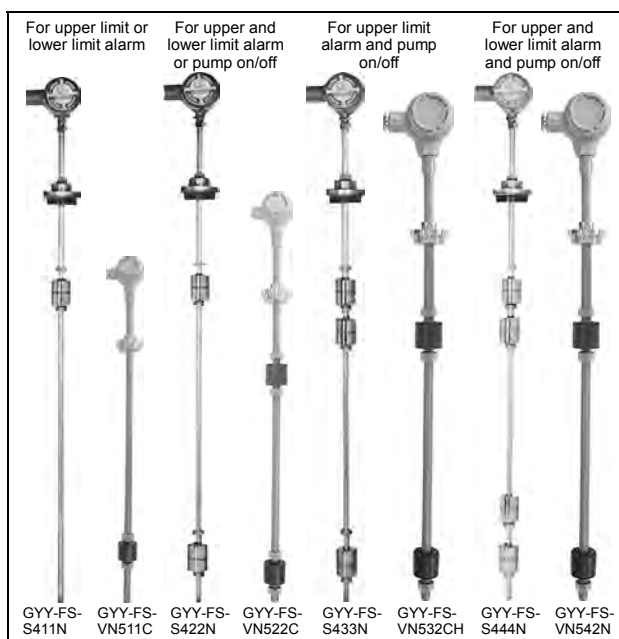
Level Alarm and Control Devices for Explosive and Hazardous Liquids Model GYY-SL Series

Features

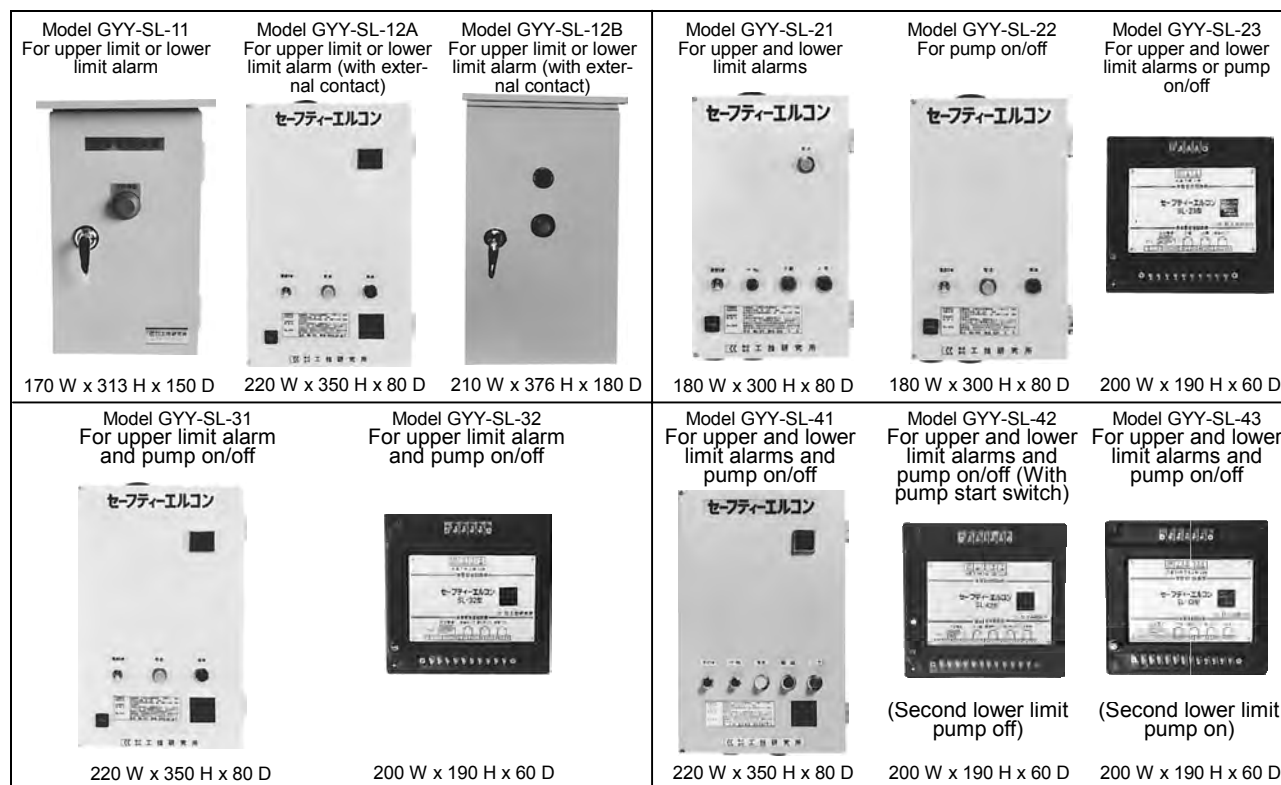
- Detection is effected by simply-constructed float switch with a built-in lead switch
- Two float switches are available: stainless steel (SUS304, up to 80 °C, with terminal box) and expanded NBR (up to 50 °C, cap tire cord)
- Install the float switch by inserting it into the top of the 50 A socket. (If there is insufficient space for installation on the top of the tank, an intermediate coupling can be used.)
- "Intrinsically Safe" construction by combination with relay box
- Variety of functions available (refer to Relay Box)

Notes: If this product is planned to be used for gasoline stations, please contact Yamatake Building Systems Co., Ltd.

Float switch



Relay box (Note: If this product is planned to be used for gasoline stations, please contact Yamatake Building Systems Co., Ltd.)

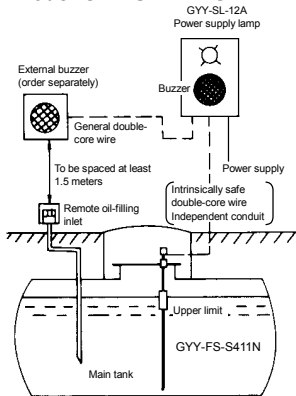


Application example

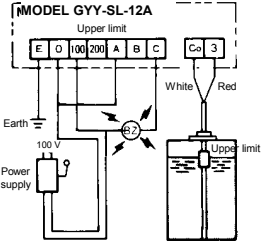
For upper or lower limit alarm

Mainly used for upper or lower alarm of main tanks. If the liquid reaches the specified level, the buzzer sounds.

Model GYY-SL-12A-S411N



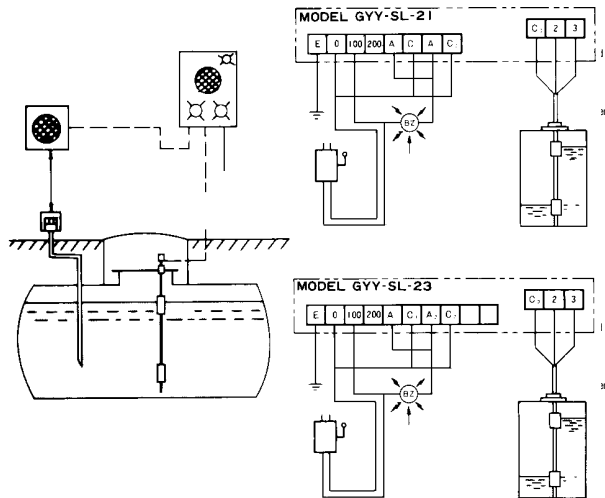
How to connect to power supply
 100 V AC: Connect to Terminal No. 0 and 100
 200 V AC: Connect to Terminal No. 0 and 200
 * The diagram refers to 100 V AC power supply.
 Rating of external contact
 220 V AC 3 A (Resistive load)



The system for GYY-SL-12B is identical to this model.
 The GYY-SL-11 does not have the ABC alarm contact output.
 This system can also be applied to the lower alarm application.

For upper and lower limit alarm

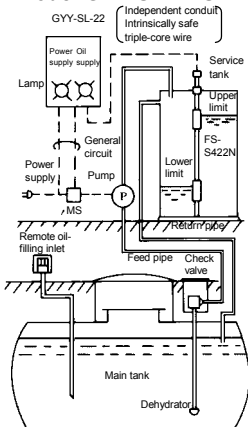
Mainly used for upper and lower limit alarms of main tanks. If the liquid reaches the specified level, the buzzer sounds.



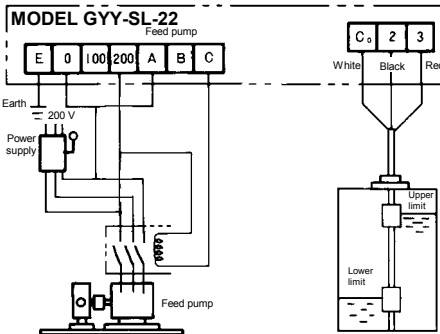
For pump on/off

Used to automatically pump up oil from the main tank to the service tank. The pump starts at the lower limit level and stops at the upper limit level. Also used to control solenoid valves.

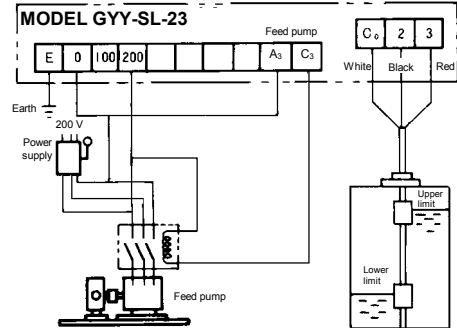
Model GYY-SL-22-S422N



How to connect to power supply
 100 V AC: Connect to Terminal No. 0 and 100
 200 V AC: Connect to Terminal No. 0 and 200
 * The diagram refers to 200 V AC power supply.



Rating of external contact
 220 V AC 3 A (Resistive load)

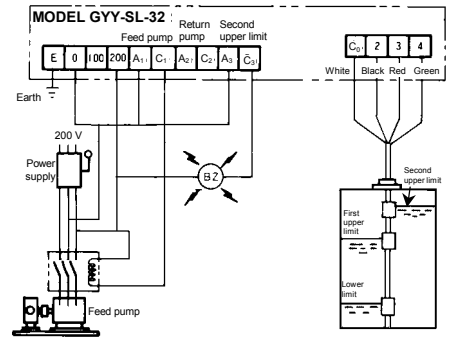
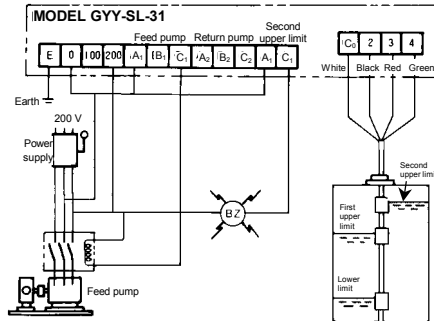
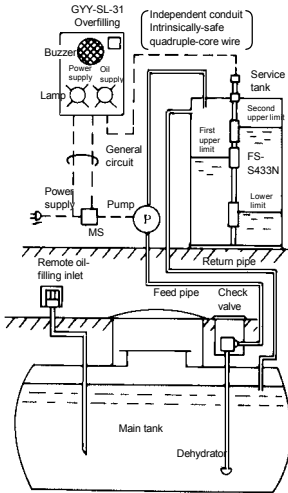


These application examples are designed in conformance with the "Dangerous substances examination guidelines" (Safety Department, Tokyo Fire Defense Agency). They aim at double-preventing any overflowing of service tanks.

Second upper limit alarm and pump on/off

Used to automatically pump up oil from a main tank to a service tank. The pump starts at the lower limit level, stops at the upper limit level and stops again at the second upper limit level. At the second upper level, the second upper limit alarm (buzzer) is triggered.

Model GYY-SL-31-S433N

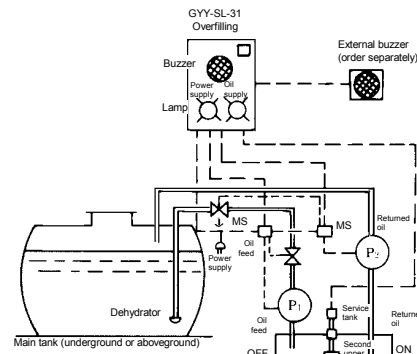


How to connect to power supply
 AC100 V AC: Connect to Terminal No. 0 and 100
 200 V AC: Connect to Terminal No. 0 and 200
 * The diagram refers to 200 V AC power supply.
 Rating of external contact
 220 V AC 3 A (Resistive load)

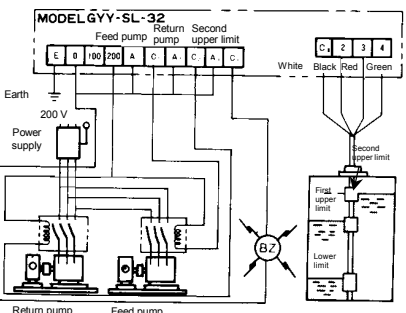
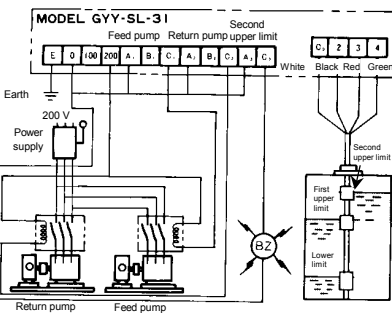
If the main tank is located in the higher position than the service tank.
 For second upper alarm and pump on/off

Used to automatically pump up oil from a main tank to a service tank. The pump starts at the lower limit level, stops at the upper limit level and stops again at the second upper limit level. At the second upper level, the second upper limit alarm (buzzer) is triggered and the return pump is activated. (Can simultaneously control the solenoid valve).

Model GYY-SL-31-S433N



How to connect to power supply
 100 V AC: Connect to Terminal No. 0 and 100
 200 V AC: Connect to Terminal No. 0 and 200
 * The diagram refers to 200 V AC power supply.
 Rating of external contact
 220 V AC 3 A (Resistive load)



(1) Solenoid valve: energized time
 (2) Emergency shut valve: energized time

CAUTION:

1. Install the intrinsically safe circuit from the float switch to the relay box separately from other circuits to prevent induction or interference. The wire should be the IV type and with a nominal cross section of 0.5 mm² or more.
2. Install the relay box in a non-dangerous area.

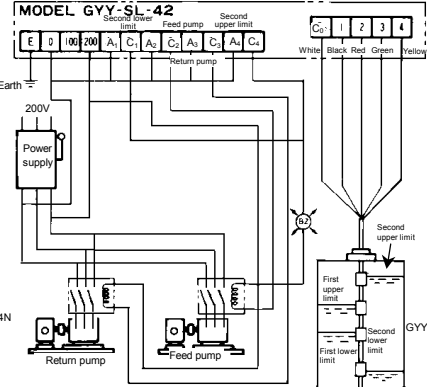
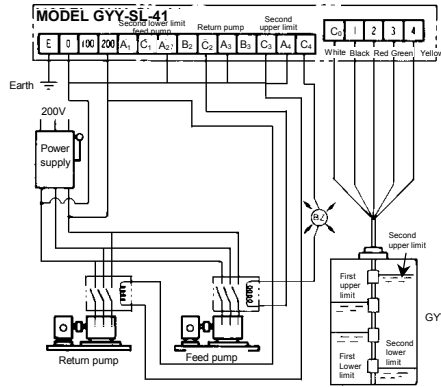
Upper and lower limit alarm and pump on/off

Detection of second lower level (abnormal drop in oil level) is added to the Model GYY-SL-31 and 32 models). Used to automatically pump up oil from the main tank to service tank. * The pump starts at the second lower limit and first lower limit level and stops at the second upper limit and first upper limit level. At the second upper level, the second upper level alarm (buzzer) and return pump are activated (Can simultaneously control the solenoid valve).

Model GYY-SL-41-S444N

How to connect to power supply
 100 V AC: Connect to Terminal No. 0 and 100
 200 V AC: Connect to Terminal No. 0 and 200
 * The diagram refers to the example of the 200V AC power supply.

Rating of external contact
 220 V AC 3 A (Resistive load)

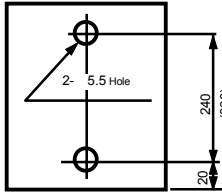


* The Model GYY-SL-42 activates the pump by pressing the pump operation switch at the second lower limit

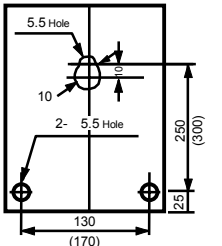
Installation of relay box

Ordering specifications

Model GYY-SL-11• 12B

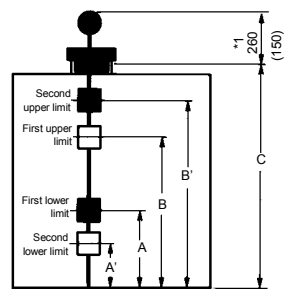
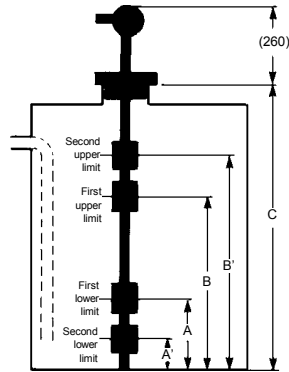
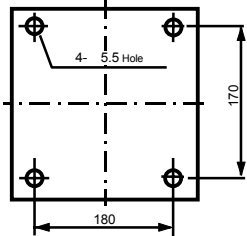


Model GYY-SL-12A• 21• 22• 31• 41



The dimensions in brackets refer to the Model GYY-SL-12A, 31 and 41.

Model GYY-SL-23• 32• 42• 43



*1
 1 contact and 2 contacts: 235mm

Stainless steel

For upper (lower) limit
 B (A) = 80 or more
 C = B (A) + 80 or more
 For upper and lower limit
 A = 80 or more
 B = A + 80 or more
 C = B + 80 or more

For second upper, first upper and lower limit

A = 80 or more
 B = A + 80 or more
 B' = B + 70 or more
 C = B' + 80 or more

For second upper, first upper, first lower and second lower limit

A' = 80 or more
 A = A' + 70 or more
 B = A + 80 or more
 B' = B + 70 or more
 C = B' + 80 or more

Ordering specifications

1. Dimensions of A', A, B, B' and C
2. System model No.
3. Liquid name
4. Float switch terminal box is required or not (A terminal box is included to the stainless steel models.)

Expanded NBR

Lower limit or upper limit
 A or B = 80 mm or more
 C = A + 80 mm or more

Lower and upper limit
 A = 80 mm or more
 B = A + 80 mm or more
 C = B + 80 mm or more

Upper, first lower and second lower limit

A'=80mm or more
 A=A'+80mm or more
 B=A+50mm or more
 C=B+80mm or more

Second upper, first upper and lower limit

A = 80 mm or more
 B = A + 50 mm or more
 B' = B + 100 mm or more
 C = B' + 80 mm or more

Second upper, first upper, first lower and second upper limit

A' = 80 mm or more
 A = A' + 50 mm or more
 B = A + 50 mm or more
 B' = B + 100 mm or more
 C = B' + 80 mm or more

The dimensions in brackets refer to models without a terminal box (C).

Specifications are subjects to change without notice.

YAMATAKE

Yamatake Building Systems Co., Ltd.

**Yamatake Corporation
International Business Division**

Totate International Bldg.
2-12-19, Shibuya, Shibuya-Ku
Tokyo, 150-8316, Japan
Phone: 81-3-3486-2350
Facsimile: 81-3-3486-2592

Rev.1.2 Sep. 2002

Printed in Japan. AS-712E 0.5H-H (W)