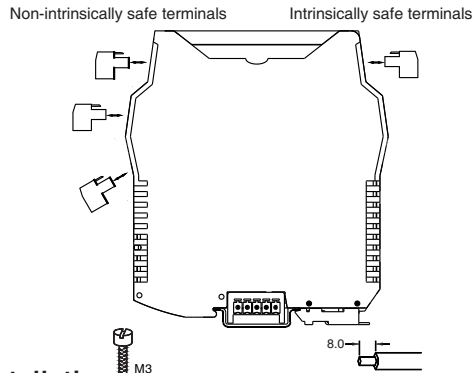


■ Connections

- (1). This barrier adopts knock-down connector with screw terminals. The intrinsically safe(IS for short) terminals (blue plugs) should be connected to hazardous area devices and the non-IS ones (green plugs) to the safe area devices.
- (2). Choose for the hazardous area the blue-marked wires. Its minimum cross section area should be 0.5 mm^2 , and minimum dielectric strength should be 500V.
- (3). The wirings in safe area and hazardous area must be separated, and both have protection bushes.
- (4). A length of 8mm bared wire is locked by the M3 bolt. See as shown below.



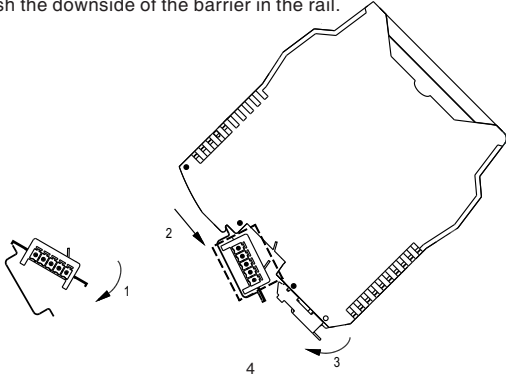
■ Installation

During installation, operation and maintenance, users shall comply with the relevant requirements of the product instruction manual, GB 50257-2014 "code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering", GB 3836.13-2013 "Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres", GB 3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous areas (other than mines)" and GB 3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)".

GS8500-EX series isolated barrier are designed for mounting on 35mm DIN guide rail.

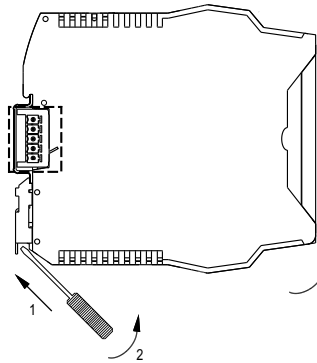
Installation according to the following steps:

- (1). First make the bus-powered outlet locked into the guide rail; (If no bus-powered function, omit this step);
- (2). Make the upside of the barrier locked into the guide rail;
- (3). Push the downside of the barrier in the rail.



■ Disassembly

- (1) Use a screwdriver (edge length $\leq 6 \text{ mm}$) insert the metal lock which at the downside of the isolator;
- (2) Push the screwdriver upwards, and pull the metal lock downwards;
- (3) Take out the isolator from the rail.



■ Maintenance

- (1) Before using, please check again whether the modules EX-proof rating accords to the operating ambients, and also wiring and polarity are correct.
- (2) It is disallowable to test insulativity among the terminals with a megameter. If necessary, the wires must be cut off before testing, or the internal fuse would blow.
- (3) Every product has been tested strictly before delivery. If users find any abnormality, please contact the nearest agent or our company.
- (4) In 5 years from the delivery date, if the product works improperly during normal operation, we will repair it for free.

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Isolated Barrier

GS8515-EX

GYB16.1335



Please read the instruction manual carefully before use the product, and please safekeeping.

⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or using. If there is anything unclear, please dial technic support hotline-400 881 0780;
- Isolated barrier should be located in the safe area;
- Supply voltage is 24VDC, 220VAC is forbidden;
- Users are not allowed to dismantle or repair the barrier otherwise it will induce malfunction.

■ Summarize

GS8515-EX level control isolated barriers are used to monitor and regulate the level of conductive liquids. AC voltages are provided in the probe circuit. They measure the resistance between two probes in the liquid. Relay outputs can be set as normal close(NC) mode or normal open(NO) mode. Line Fault (breakage) Detection is selectable.

■ Specification

- Number of channels: 1/2
- Supply Voltage: 20~35V DC
- Current consumption:(at 24Vdc supply,relay energized)≤50mA
- Safe-area output:
 - Drive ability: 250V AC,2A or 24V DC,2A
 - Load type: resistive
 - Delay time: 0.5s,10s(Adjustable switch delay)

- Hazardous-area input:
 - Control input: ON/OFF control(9,10)
 - Upper limit/lower limit control(9,10,11)
 - Sensitivity: 1k~150k Ω (adjustable via the front cover potentiometer)

- The property of input and output:
 - If liquid level exceeds limit:
 - When K1 is set to OFF state, output relay is energized, with yellow LED ON.
 - When K1 is set to ON state, output relay is de-energized,with yellow LED OFF.
 - When LFD enabled, output relay 1 is de-energized,with yellow LED OFF and red LED flashing; output relay 2 is energized, with yellow LED ON.

Function of the control switch:

Sta.	K1	K2	K3
OFF	Open	LFD Disenabled	Delay 0.5s
ON	Close	LFD Enabled	Delay 10s

- Note: A 430k Ω resistor should be paralleled between electrodes when using LFD functing.
 - NO means terminals 6,8 and 3,5.
 - NC means terminals 6,7 and 3,4.
 - The switches are set to OFF state by default.

- Power supply protection:
 - protect the product form reverse supply voltage destroy.

- Electromagnetic compatibility:
 - Accord with IEC 61326-1(GB/T 18268)

- Dielectric strength:
 - Between non-intrinsically safe circuit and intrinsically safe≥2500V AC
 - Between power supply and non-intrinsically safe circuit≥1500V AC

- Insulation resistance:
 - Between non-intrinsically safe part and intrinsically safe part≥100M.Ω
 - Between power supply and non-intrinsically safe part≥100M.Ω

- Weight: approx.150g
- Suitable location:
 - Mounting in safe area, be connected with IS apparatus in zone 0/1/2, IIA,IIB,IIC,T4~T6 hazardous area.

- Suitable IS apparatus: Conductive liquid level detection devices

■ Operation Conditions

- (1).The air should not contain any medium corrupting the coat of chrome, nickel and silver. Moreover,violent quiver and impact or any cause of electromagnetic induction (such as big current or spark, etc.)must be avoided when using.
- (2). Operating temperature: -20℃~+60℃
- (3). Storage temperature: -40℃~+80℃
- (4). Relative humidity: 10%~90%

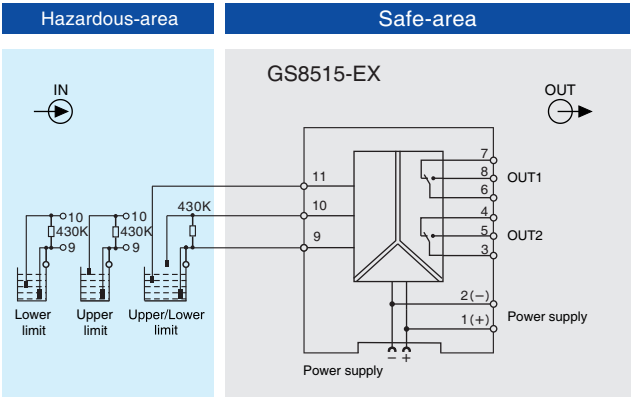
■ Intrinsic safety description

- National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation(NEPSI)
- Compliance with standard: GB3836.1、GB3836.4 and GB3836.20
- Ex-marking: [Ex ia Ga] IIC
- Um=250V
- Intrinsic safety parameter: (9,10,11 terminals)
 - Uo=5.4V, Io=2.5mA, Po=6.25mW
 - IIC : Co=65μF , Lo=100mH
 - IIB : Co=400μF , Lo=400mH
 - IIA : Co=1000μF , Lo=900mH
- (1) for distributed inductance and capacitance e.g. as in a cable, allow the values of capacitance and inductance;
- (2) for circuits containing up to 1 % inductance or up to 1% capacitance with a cable,allow the values of capacitance and inductance;
- (3) for connection of the combined inductance and capacitance where both are greater than 1% of the allowed value (excluding the cable), allow up to 50% each of the values of capacitance and inductance

■ Intrinsic safety explosion protection loop system

- Special requirements have to be confirmed before using the intrinsically safe explosion loop system(intrinsically safe circuit) which connected by isolated barrier and intrinsically safe apparatus in field:
 - (1) The explosion level of intrinsically safe apparatus should meet the requirements of operation conditions. The apparatus should pass the explosion protection test and get the certificate by state-authorized explosion-proof product certification bodies.
 - (2) The intrinsic safety parameters of isolated barrier and intrinsically safe apparatus both are sure, and comply with 12.2.5 of GB 3836.15-2000.
 - (3) If any parameters are unclear, the system has to be confirmed by state-authorized explosion-proof product certification bodies.

■ Application



■ Outline dimensions

118.9mm×106.0mm×17.5mm

