

Features

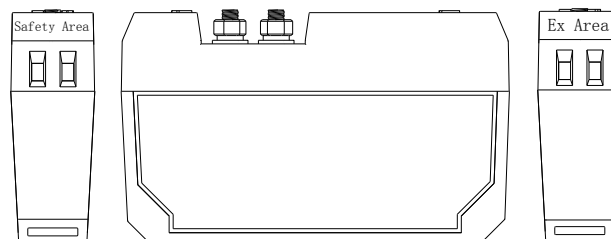
- ✧ Aesthetical appearance and good protection against interference.
- ✧ Simple installation and operation.

Description

GST-AS-200, GST-AS-300 Zener Safety Barrier (the barrier) is associated with intrinsically safe products. It provides protection by limiting the energy into explosive environment. Used together with explosive-proof detectors and manual call points from GST, the barrier is suitable for protecting the automatic control process in modern industries such as petroleum industry, chemical industry, pharmaceutical industry, and ship yards.

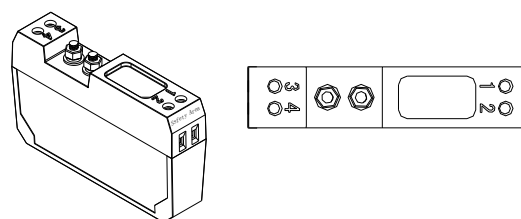
The protection of the barrier is actually the limiting of energy. In an explosion-proof system, the barriers ensures the energy output always be controlled under a safe value (that will not ignite the explosive gas mixture classified and grouped according to relative standards) in case of any kind of fault condition.

The barrier restricts the voltage through a voltage stabilizing diode. When the input voltage rises sharply, the diode will be turned on and control the output voltage below the upper limit. The current of the diode will rise sharply when turned on. If the input voltage is too high or high voltage lasts too long, the fuse connected in the circuit in series will be blown to cut off the high voltage to the devices in field. When the load in field is in short circuit, the current-limiting resistor in the circuit of the barrier will limit the output current below its upper limit.



Connection & Cabling

Terminals are shown below.



Description:

No.	Terminals	GST-AS-200	GST-AS-300
1	Non-intrinsically safe side	Positive	Polarity-insensitive
2	Non-intrinsically safe side	Negative (internal earth)	
3	Intrinsically safe side	Positive	Polarity-insensitive
4	Intrinsically safe side	Negative (internal earth)	

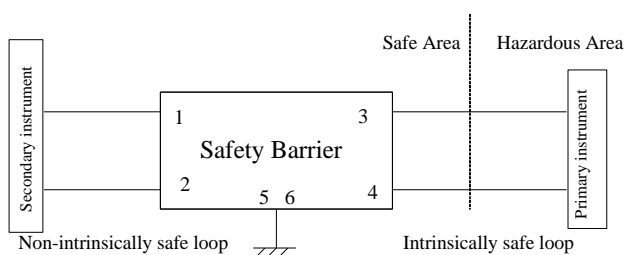
Installation

The barrier should be installed by copper busbar.

Warning: Power must be disconnected from the loop before installation.

Application

The figure below shows the application of the barrier.



Specification

Operating voltage	24V
Max. voltage allowed	$U_m=250VAC/DC$
Max. output voltage	$U_0=28V$
Max. output current	$I_0=93mA$
Max. external capacitance	$C_0=0.083\mu F$
Max. external inductance	$L_0=4mH$
Ambient Temperature	$-20^{\circ}C \sim +40^{\circ}C$
Relative Humidity	$\leq 95\%$, non condensing
Dimensions	$96.9mm \times 20.9mm \times 58.4mm$
Weight	About 0.12kg

The parameters of the barrier are shown below.

Model	Voltage (V)	End resistor (Ω)		Basic circuit	
		1-3	2-4	Non- Intrinsically safe	Intrinsically safe
GST-AS-200	24	330	0		
GST-AS-300	24	320	320		

Cautions

1. The barrier should be installed in safe area.
2. Cables from intrinsically safe side and non-intrinsically safe side should be connected correctly. Note the lead polarity of GST-AS-200 barrier.
3. The barrier should be earthed. The resistance at the earth electrode should not be higher than 1Ω .
4. It's prohibited to test the insulation between terminals directly using a megohmmeter. Before testing system connection, you must disconnect the barrier.
5. Cables, and equivalent capacitance and inductance distribution of connected devices at non-intrinsically safe side should meet the safety requirements of the barrier.
6. Installation, operation and maintenance of the barrier should comply with this manual.

Limited Warranty

GST warrants that the product will be free of charge for repairing or replacing from defects in design, materials and workmanship during the warranty period. This warranty doesn't cover any product that is found to have been improperly installed or used in any way not in accordance with the instructions supplied with the product. Anybody, including the agents, distributors or employees, is not in the position to amend the contents of this warranty. Please contact your local distributor for products not covered by this warranty.

This Data Sheet is subject to change without notice. Please contact GST for more information or questions.

Gulf Security Technology Co., Ltd.

No. 80, Changjiang East Road, QETDZ, Qinhuangdao, Hebei, P. R. China 066004

Tel: +86 (0) 335 8502434 Fax: +86 (0) 335 8502532

service.gst@fs.utc.com www.gst.com.cn