1/1：GS8554-EX.11
2/2：GS8554-EX.22

Pulse input isolated barriers, provide isolated power supply(24V) for field instruments. The pulse signal generated in the hazardous-area device is transmitted to the safe-area through the isolated barrier to output. The input adopts hysteresis comparison circuit which has high anti-interference performance. The product needs an independent power supply and galvanic isolation among power supply, input and output.

Dimensions：118.9mm×106.0mm×17.5mm

Specification

Supply Voltage： 20~35V DC

Current Consumption： (Supply voltage: 24V; output: 12V voltage pulse)
⩽160mA(GS8554-EX.22，24V distribution volatge)
⩽90mA(GS8554-EX.11，24V distribution volatge)

Safe-area Output：

Transistor Output：Supply voltage V_{CC}⩽40V, Rated current⩽40mA
Transistor Collector Output：
V_H=V_{CC}; V_L⩽2.5V(On-state current=10mA, Vcc=24V)
Load Resistance：2kΩ⩽R_L⩽20kΩ
Transistor Emitter Output：
V_H⩾V_{CC}-2.5V; V_L⩽0.5V(On-state current=10mA, Vcc=24V)
Load Resistance：2kΩ⩽R_L⩽20kΩ

Voltage pulse Output：
24V Range PLC/DCS：High Voltage 16V⩽V_H⩽24V
12V Range PLC/DCS：High Voltage 9V⩽V_H⩽12V
Low Voltage：V_L⩽0.5V
Load Resistance：R_L⩾1kΩ, Rated current⩽10mA

Hazardous-area Input：

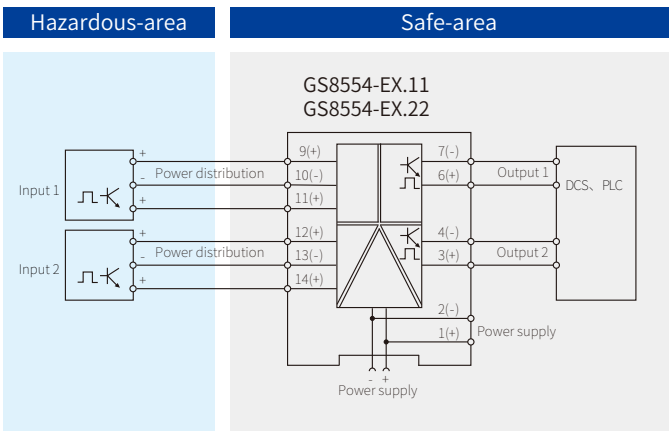
Voltage pulse Input：High voltage V_H⩾4V; Low voltage V_L⩽1V
Frequency at oltage pulse output⩽50kHz
Frequency at transistor output⩽20kHz
Transistor Input：NPN/PNP
Frequency at voltage pulse output⩽20kHz
Frequency at transistor output⩽10kHz
(Input signal Vh⩽12V，Duty ratio⩾30%)
The input signal type can be set by the DIP switches：

Sta.	Input 1		Input 2	
	K4	K3	K2	K1
Voltage pulse Input	OFF	OFF	OFF	OFF
Emitter (PNP) Input	OFF	ON	OFF	ON
Collector (NPN) Input	ON	OFF	ON	OFF

Distribution power：Open-voltage: ⩽26V ; Rated voltage: ⩾16V at 20mA
Note：a) K1 and K2 cannot be ON at the same time；
b) K3 and K4 cannot be ON at the same time。

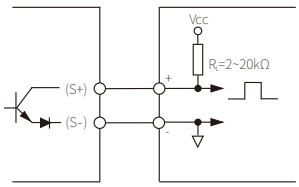
Power Supply Protection： Power supply reverse protection
EMC： According to IEC 61326-1(GB/T 18268)
Ambient Temperature： -20°C~+60°C
Dielectric Strength：
Between non-intrinsically safe part and intrinsically safe part⩾2500V AC
Between power supply part and output part⩾1500V AC
Structure： GS8500 range structure customized by Phoenix Contact.
Weight： Approx. 150g
Suitable Location： Mounting in safe area, and connected to the IS apparatus in hazardous area up to zone0 IIC and zone20 IIIC.
Suitable Field Apparatus： 2-wire or 3-wire pulse signal source

Connection

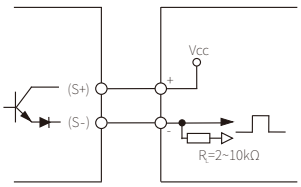


Note: a) GS8554-EX.11 only contains input1、output1;
b) Bus-powered function is optional, if necessary please specified when ordering, and purchase bus power supply accessories in additional.

Application 1：
Transistor Collector Output



Application 2：
Transistor Emitter Output



Explosion-proof Certificate

Certifying Authority： NEPSI(China)
Ex Marking： [Ex ia Ga] II C
[Ex iaD]
Maximum Voltage： Um=250V
Intrinsic Safety Parameters(9、10、11；12、13、14 terminals)：
U_O=28V，I_O=93mA，P_O=651mW
II C：C_O=0.083μF，L_O=4.2mH
*II B：C_O=0.65μF，L_O=12.6mH
II A：C_O=2.15μF，L_O=33.6mH
*II B Intrinsic Safety Parameters are also suitable for dust explosion protection[Ex iaD]