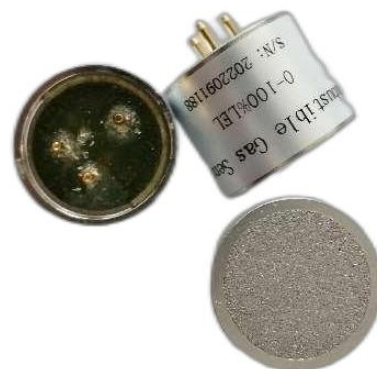


MST-EX/2.9V combustible gas sensor

The sensor is used to detect combustible gases leaking into air, including natural gas (methane), petroleum gas, urban gas, and is a broad-spectrum gas sensitive element. The gas concentration is from 0 to 100%LEL. The series of elements are not suitable for detecting Class ppm combustible gas.



1. Features

- Excellent stability
- Excellent reproducibility and accuracy
- With fuel gas concentration into linear output
- Fast response characteristics
- 4 series standard

2. Application

Concentration detection of natural gas, liquefied gas, methane and organic solvent vapor such as gasoline, alcohol, ketone and benzene.

- Flammable gas leakage alarm
- Combustible gas Detector
- Gas concentration meter

3. Appearance structure

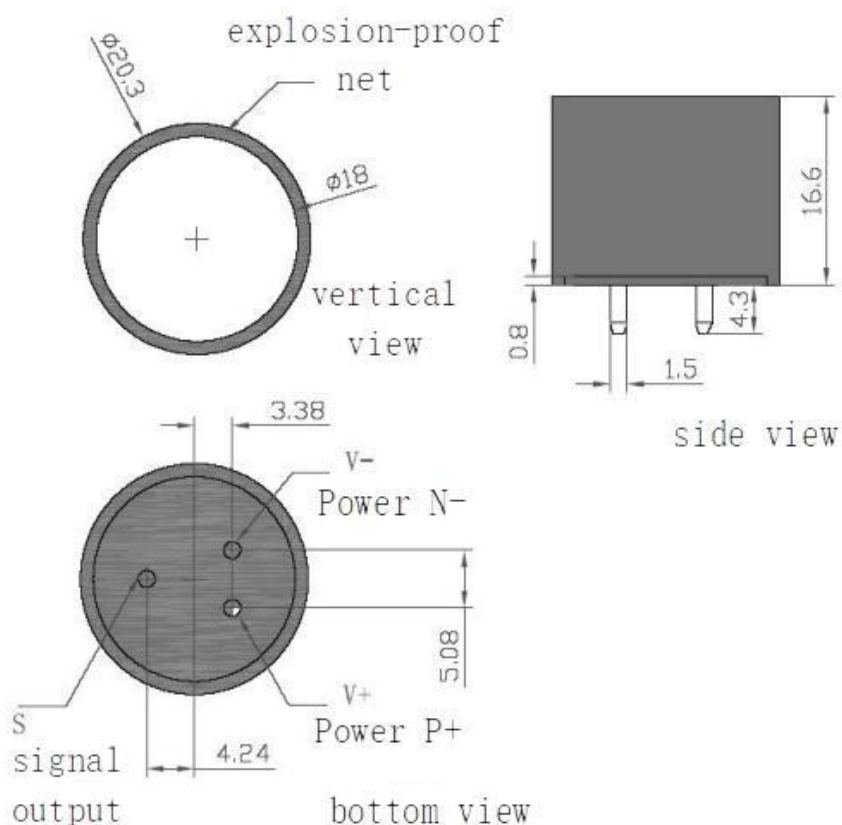
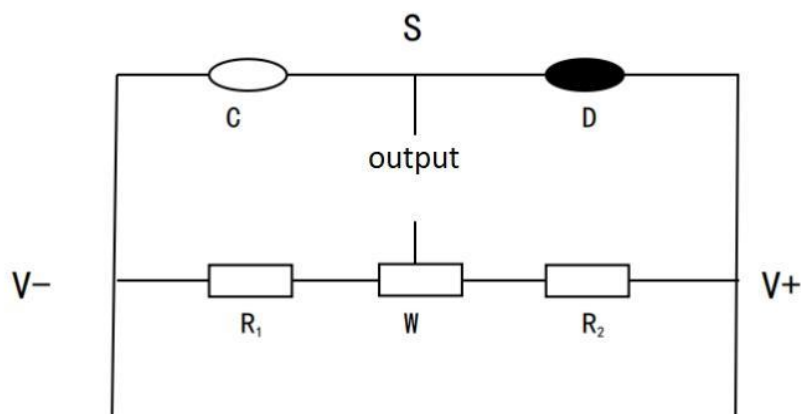


Fig.1

4. Basic test circuit

The catalytic element is composed of a detection element and a compensation element, The working principle is shown in Figure 2:



D—detecting element (black)
C—compensating element (white)
R1、R2=680 Ω bridge resistor
W—adjustable resistor

Fig.2

5. Qualification

load voltage (V)	2.9±0.1	working current (mA)	90±20
Sensitivity (mV)	12-50 (1% methane)	Ex sign	Exd II CT6 Gb
Ex certificate No.		Linearity (%)	≤5
Range (%LEL)	0-100	response time (90%)	< 10s
recovering time (90%)	< 30s	opreating Env.	-20 ~ 40°C, RH < 95%
storing Env.	-20 ~ 70°C, RH < 95%	operative norm	Q/PTI001-2012

6. Sensitivity characteristics and response recovery properties

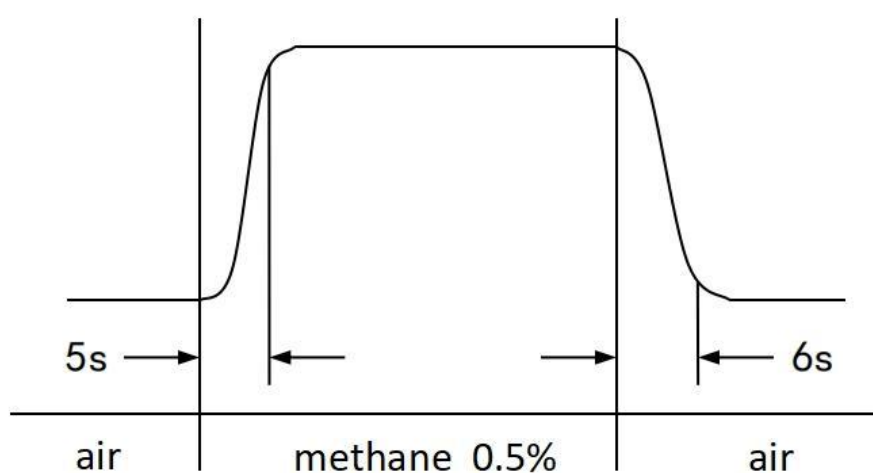


Fig.3

7. last stability

a) Zero-drift in the air

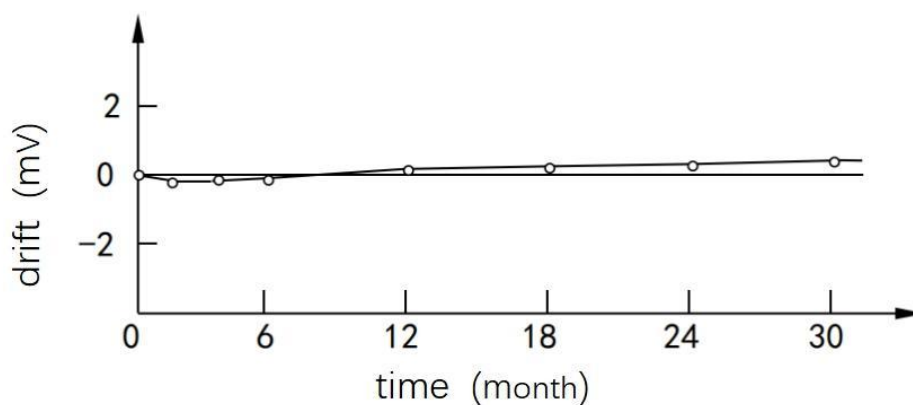


Fig.4

b) 0.5% CH₄ Sensitivity

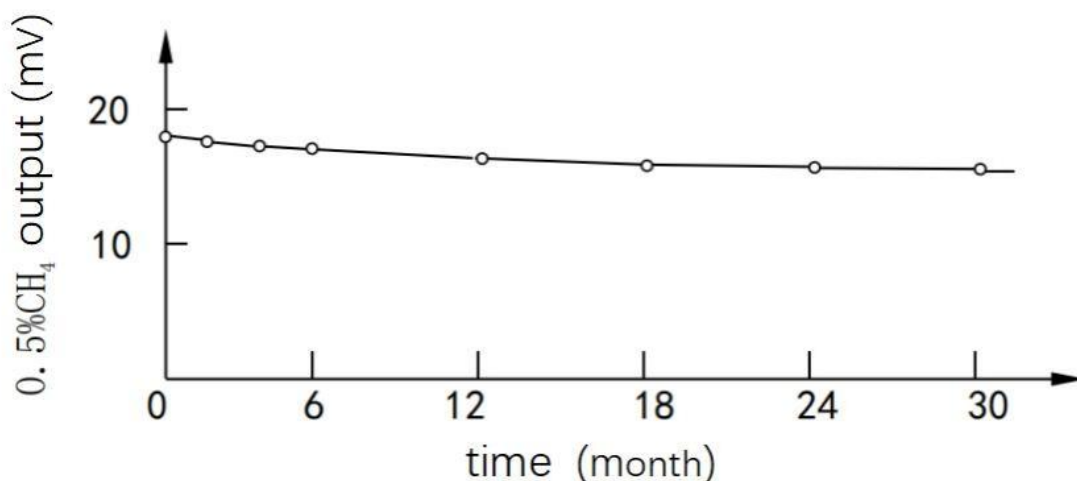


Fig.5

8. Attention

- ◆ Prevent sensor from falling from high places or hitting strongly.
- ◆ The elements will be damaged to varying degrees in hydrogen sulfide and silicon organic environments.
- ◆ Do not exceed the rated voltage.
- ◆ Do not soak the sensor in water.
- ◆ Please seal them in plastic bags for long-term storage of sensors.
- ◆ Be sure to wait until it is completely dry before attaching the element if an insulation paint or adhesive is used.
- ◆ The sensor shall be used where the combustible gas concentrations is below the explosion limit.
- ◆ The sensor shall not be used in anarobic environment.

Ningxia MaiYa Sensor Technology Development Co., LTD
 Address: Tower C, Yinchuan Zhongguancun Innovation Center,
 Helanshan Road, Xingzhou Street, Yinchuan, Ningxia, China750000
 E: office@maiya-sensor.com / maiychuangan@163.com
 T: +86 189 9527 8133 / +86 182 0276 0413
 Whatsapp: +86 18202760413
[Http://www.maiychuangan.com](http://www.maiychuangan.com)
<https://www.maiya-sensor.com>

