7NE series Infrared gas sensor

NE Sensor

Infrared gas sensor using dual beam technology with measurement and referencechannel for use in analytical devices and process control applications. Integrated evaluation electronics for drift and temperature compensation. Robust aluminium cuvette with gas line connectors.



产品的结构与特点

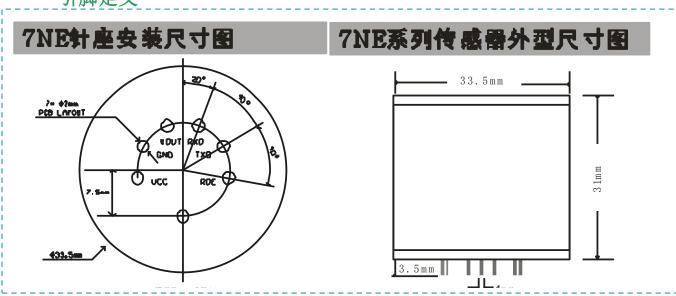
- Infrared measuring principle (NDIR)
- Dual beam technology
- ♦ Modbus ASCII via UART 、4-20mA、TTl
- ♦ 3/5mm gas line connectors
- Pre calibrated
- High selectivity
- Customer-specific modules possible



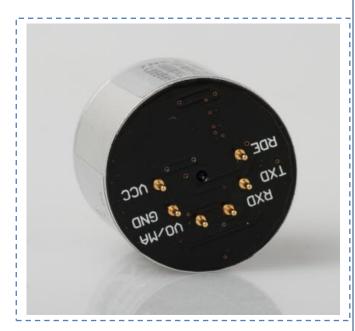
Measurement principle:	Non Dispersive Infra-Red (NDIR), dual wavelength	
Detection of gas	SO2、CO2、CH4、SF6、CO、CH	
Measurement range:	0-500ppm、0-1000 ppm、0-2000 ppm、0-3000 ppm	
Gas supply:	by flow	
Gas line connectors:	3 mm internal, 6 mm outer diameter	
Flow rate:	0.2 to 0.8 l/min (constant)	
Dimensions:	33.5mm×31mm	
Warm-up time:	< 2 minutes (start up time) < 30 minutes (full	
	specification)	
Response time (t 90):	Appr. 15 s (@ 0.5 l/min)	
Digital resolution (@ zero):	1 ppm	
Detection Limit :	≤ 1 % FS (typically)	
Repeatability:	≤ 1 % FS (typically)	
Linearity error	≤ ± 1% FS	
Long term stability (zero)	\leq \pm 2 % FS over 12 month period	
Long term stability (span):	\leq \pm 2 % FS over 12 month period	
Temp. dependence (zero):	\leq \pm 0.1 % FS per $^{\circ}$ C	
Temp. dependence (span):	\leq \pm 0.2 % FS per $^{\circ}$ C	
Pressure dependence (span):	0.15 % value per hPa	
Supply voltage:	5 VDC ± 1 %、 12VDC± 1 %	
Operating temperature:	-10 °C to 40 °C	

Storage temperature:	-20 °C to 60 °C	
Air pressure:	800 to 1200 hPa	
Humidity:	0 % to 95 % rel. humidity (not condensing)	

引脚定义



Name	Input	Pin	Description
	Output	Number	
VCC	I	1	Operating voltage 12VDC (5V
			customization)
GND	I	2	Ground
VOUT	1	3	Current, voltage output
RXD	1	4	TTL232 Receiving
TXD	0	5	TTL232 Send
RDE	0	6	Sensor external control pin
			RS485 chips



Application Market

Gas analysis industry, industrial process control, environmental monitoring and power plants, substations and gas concentration gas leak detection alarm

Installation Notes

The sensor uses a plug-in installation, do not wire directly at the sensor pins should be wire bonded at the end of a hollow pin, then the sensor is inserted into the hollow pins are aligned with the slot, be careful not to plug or unplug the sensor

Maintenance matters should be noted

Sensors must be regularly calibrated, recommend no more than six months, if a long-running open automatic calibration calibration is not required; not long-term use of the sensor in the dust density in the environment; use the sensor within the sensor power supply range.

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