Henan Inte Electrical Equipment Co., Ltd.

KQ500D series fixed gas detector(with lamp)

Product Overview:

KQ500D fixed gas detector transforms the gas density in the operating site into standard electric current signal(4-20mA). With LED display, detector's sensor can be changed and reused as soon as it is connected to electricity.

KQ500D has excellent performance, stable operation, easy maintenance. detector can detect various gas, it meet various requirements in the operation site; it has been widely used in petrol, chemistry, metallurgy, artifice, gas transportation, biological medicine and water procession etc.

Main features:

- Standard 4-20mA electric current output, compatible with existing alarm control unit or DSC (distributed control system).
- LED site display that is suitable for factory
- Standard three buttons: so an individual can operate the detector on site.
- Automatic identify and display the sensor failures, and output the corresponded current signal at the same time.
- The key operation needs to input password to prevent wrong operation.
- Simple calibration function; reducing measuring error
- Two levels' light alarm, relay output (connected with audible and visual alarm outside or start the exhaust system)

Technical Parameters:

Detecting Gas	combustible gas, toxic gas, oxygen
Measuring Range	see the chart
Working Voltage	24VDC±15%
Signal output	4~20mA linear current output;

Deviation	≤± 3% F.S
Respond Time	T90 < 30 s
Recovering time	≤ 30 s
Display model	LED display
Working Temperature	toxic gas: - 20 ℃ ~ + 50 ℃ Combustible gas: - 40 ℃ ~ + 70 ℃
Working Humidity	10-95% R.H.(no condensation)
Explosion-proof level	Exd IICT6(used for explosion proofing detector); ExiaIICT4(used for intrinsic safety type detector)
Protection Class	IP66
Transition cable	three core shield cable RVVP 3×1.5mm2; 4×1.5mm2
Transmission distance	≤1000m
Weight	about 1.5kg

Product Information Chart

Product Model	Detected Gas	Measuring Range	Resolution	Deviation (F.S)	Low Alarm	High Alarm	Sensor life (Y)
KQ500D-EX	combustible gas	0～100%LEL	1%LEL	≤±3%	20%LEL	50%LEL	3-5
KQ500D-O2	oxygen	0～30%VOL	0.1%VOL	≤±3%	18.5%VOL	23.0%VOL	2-3
KQ500D-CO	carbon monoxide	0～2000PPM	1PPM	≤±3%	50PPM	100PPM	2-3
KQ500D-C2H4	ethylene	0-250ppm	0.1ppm	≤±3%	1.0ppm	2.0ppm	2-3
		0-3%VOL	0.1%VOL	≤±3%	1%VOL	2%VOL	2-3
KQ500D-LPG	LPG	0～100%LEL	1%LEL	≤±3%	20%LEL	50%LEL	3-5
KQ500D-SO2	sulfur dioxide	0～20PPM	0.1PPM	≤±3%	2PPM	5PPM	2-3
KQ500D-NO2	nitrogen dioxide	0～20PPM	0.1PPM	≤±3%	2PPM	5PPM	2-3
KQ500D-CL2	chlorine	0～20PPM	0.1PPM	≤±3%	2PPM	5PPM	2-3
KQ500D-H2S	hydrogen sulfide	0～2000PPM	1PPM	≤±3%	50PPM	1000PPM	2-3
KQ500D-NH3	ammonia	0～100PPM	1PPM	≤±3%	25PPM	50PPM	2-3

KQ500D-H2	hydrogen	0～1000PPM	1PPM	≤±3%	50PPM	200PPM	2-3
KQ500D-O3	ozone	0～5PPM 0～100PPM	0.1PPM 1PPM	≤±3%	0.5PPM 10PPM	1.0PPM 20PPM	2-3
KQ500D-NO	Nitric Oxide	0～250PPM	1PPM	≤±3%	35PPM	50PPM	2-3
KQ500D-HCL	hydrochloric acid	0～20PPM	0.1PPM	≤±3%	2PPM	5PPM	2-3
KQ500D-PH3	Phosphine	0～20PPM	0.1PPM	≤±3%	1PPM	3PPM	2-3
KQ500D-HCN	hydrogen cyanide	0～50PPM	0.1PPM	≤±3%	5PPM	10PPM	2-3
KQ500D-CLO2	Chlorine Dioxide	0～50PPM	0.1PPM	≤±3%	5PPM	10PPM	2-3
KQ500D-ETO	Ethylene oxide	0～100PPM	1PPM	≤±3%	20PPM	50PPM	2-3
KQ500D-CH2O	ormaldehyde	0～10PPM	0.1PPM	≤±3%	1PPM	2PPM	2-3
KQ500D-HF	hydrogen fluoride	0～10PPM	0.1PPM	≤±3%	1PPM	2PPM	2-3
KQ500D-CO2	carbon dioxide (IR)	0～5000PPM 0～5%VOL	1PPM 0.01%VOL	≤±3%	2000PPM 1%VOL	3000PPM 2%VOL	5-10
KQ500D-VOC	Volatile Organic Compound	0～1000PPM 0～50PPM	1PPM 0.1PPM	≤±3%	50PPM 5PPM	100PPM 10PPM	3-5
KQ500D-CH4	Methane(IR) (IR)	0～5%VOL 0～100%VOL	0.01%VOL 0.1VOL	≤±3%	1%VOL 3%VOL	2%VOL 5%VOL	5-10
KQ500D-C2H4	ethylene	0～200PPM	1PPM	≤±3%	20PPM	50PPM	2-3
As for unlisted detected gas and measuring range, please contact with our company							

5 Installation and wiring

5.1 Installation

5.1.1 Detector should be installed 1m away from valves, piping interface, gas outlet port or leakage place and has no effect on the operation of other equipment. Try to avoid high temperature and high humidity environment.

5.1.2 fixing height: when density of detected gas is greater than air, fixing height is 2m~3.5m; when density of detected gas is smaller than air, fixing height is 0.3~0.6m to the floor.

5.1.3 sensor must be down fixed, locking nut should be fully tighten, detector front and back covers shall be completely covered. All these safety measures meet explosion-proof

requirements.

5.1.4 it is recommend to install one detector in the space of 30m^2~50m^2.

5.2 Detector wiring

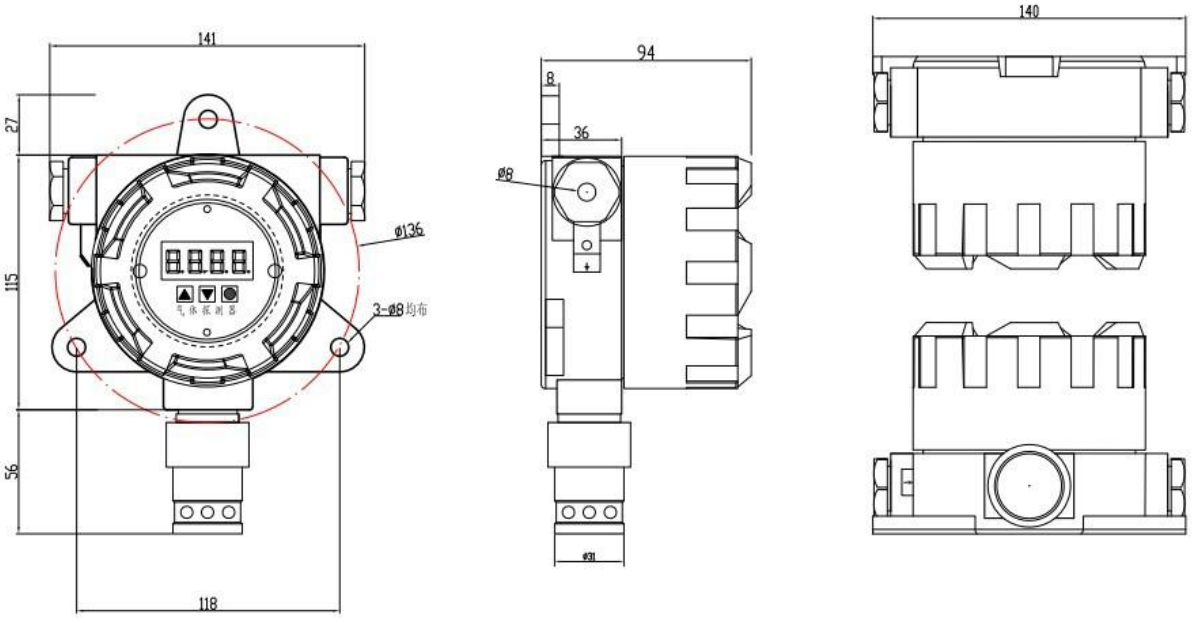
Fix detector on the wall, uninstall front cover, bring in transmission cables from inlet port, send rubber seal into internal shell.

Connect guide lines to internal corresponding terminals according to marked color (see chart), make sure the wiring is correct, draw out excess cable, tighten locking nut, compact rubber seal, bind cable (explosion-proof design). Use explosion-proof hose may also be connected directly to the detector.

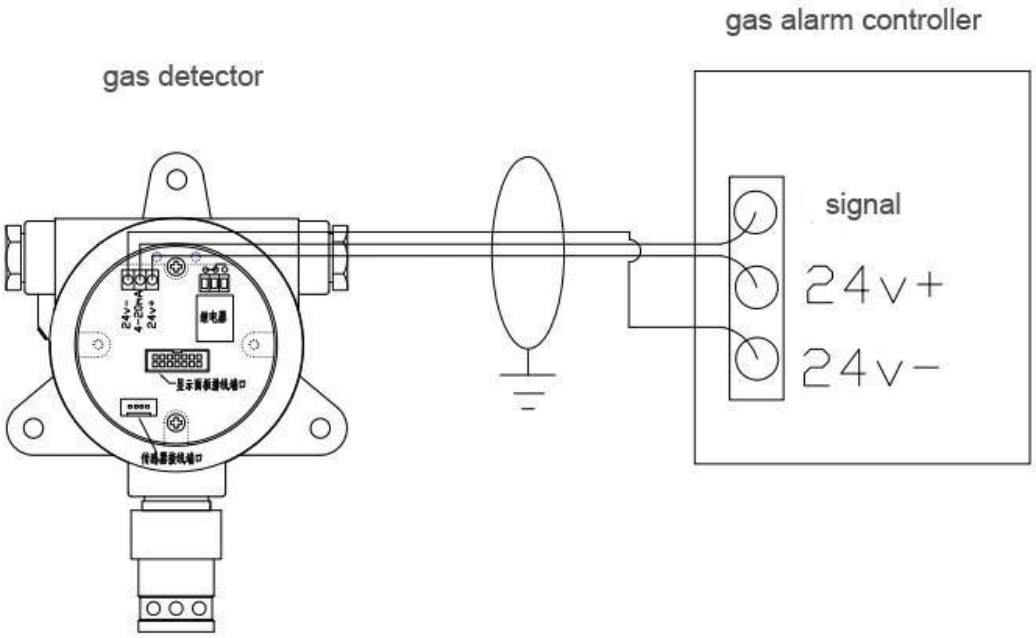
Controller and detector is connected with shielded cable whose diameter is not less than 1.5 mm2 and the transmission distance is less than 1000m.

After checking the connection, tighten the front cover. According to user's site conditions, user can do the connection first, then fix detector on the wall.

Configuration of KQ500D Fixed Gas Detector



Connection of KQ500D Fixed Gas Detector


gas alarm controller
gas detector
signal
24v+
24v-