



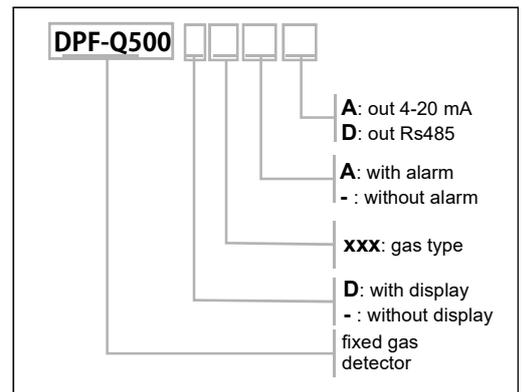
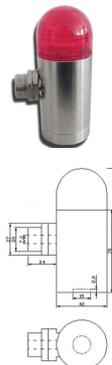
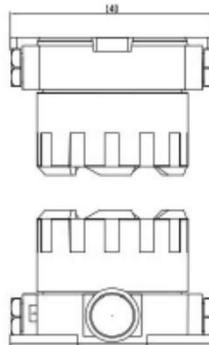
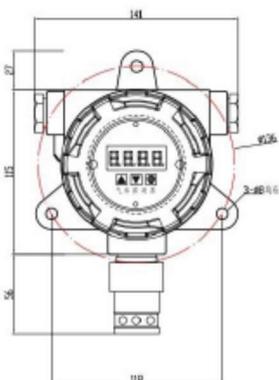
## DPF-Q500D GAS DETECTOR

### DPF-Q500 GAS DETECTOR, without display

DPF-Q500D series fixed gas detector is also called gas sensor. It transforms the gas density in the operating site into standard electric current signal(4-20mA). With or without display, detector's sensor can be changed and reused as soon as it is connected to electricity.

DPF-Q500D detector 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.

|                       |  |
|-----------------------|--|
| Detecting Gas         | combustible gas, toxic gas, oxygen                                       |
| Measuring Range       | see the chart  |
| Working Voltage       | 24VDC±15%  |
| Signal output         | 4~20mA linear current output; 3 WIRES                                    |
| Deviation             | ≤± 3% F.S  |
| Respond Time          | T90 < 30 s   |
| Recovering time       | ≤ 30 s   |
| Display model         | LED display  |
| Working Temperature   | toxic gas: - 20 °C ~ + 50 °C   |
|                       | Combustible gas: - 40 °C ~ + 70 °C                                       |
| Working Humidity      | 10-95% R.H.(no condensation)   |
| Explosion-proof level | Exd IICT6(used for explosion proofing detector) ;                        |
|                       | ExialICT4(used for intrinsic safety type detector)                       |
| Protection Class      | IP66   |
| Transition cable      | three core shield cable RVVP 3×1.5mm <sup>2</sup> ; 4×1.5mm <sup>2</sup> |
| Transmission distance | ≤1000m   |
| Weight                | about 1.5kg  |



# Product Information Chart

| Product Model   | Detected Gas                    | Measuring Range           | Resolution          | Respond Time (T90) | Low Alarm            | High Alarm           | Sensor Life (Year) |
|---|---------------------------------|---------------------------|---------------------|--------------------|----------------------|----------------------|--------------------|
| DPFQ 5000-EX  | combustible gas (EX)            | 0-100%LEL                 | 1%LEL               | ≤30s               | 20%LEL               | 50%LEL               | 3..5               |
| DPFQ 5000-O2  | O <sub>2</sub>                  | 0-30%vol                  | 0.1%vol             | ≤15s               | 18.5%vol             | 23%vol               | 2..3               |
| DPFQ 5000-CO  | CO                              | 0-1000 ppm                | 1 ppm               | ≤15s               | 50 ppm               | 150 ppm              | 2..3               |
| DPFQ 5000-H2S   | H <sub>2</sub> S                | 0-100 ppm                 | 1 ppm               |                    | 10 ppm               | 15 ppm               | 2..3               |
| DPFQ 5000-HCN   | HCN                             | 0-50 ppm                  | 0.1ppm              | ≤30s               | 5 ppm                | 10 ppm               | 2..3               |
| DPFQ 5000-CL2   | CL <sub>2</sub>                 | 0-20 ppm                  | 0.1 ppm             | ≤30s               | 2 ppm                | 5 ppm                | 2..3               |
| DPFQ 5000-O3  | O <sub>3</sub>                  | 0-5 ppm<br>0-100 ppm      | 0.1 ppm<br>1ppm     | ≤25s               | 0.1 ppm              | 0.5 ppm              | 2..3               |
| DPFQ 5000-NH3   | NH <sub>3</sub>                 | 0-100 ppm                 | 1 ppm               | ≤30s               | 25 ppm               | 50 ppm               | 2..3               |
| DPFQ 5000-H2  | H <sub>2</sub>                  | 0-1000 ppm                | 1 ppm               | ≤30s               | 50 ppm               | 200 ppm              | 2..3               |
| DPFQ 5000-NO2   | NO <sub>2</sub>                 | 0-20 ppm                  | 0.1 ppm             | ≤25s               | 2 ppm                | 5 ppm                | 2..3               |
| DPFQ 5000-PH3   | PH <sub>3</sub>                 | 0-20 ppm                  | 0.1 ppm             | ≤15s               | 1 ppm                | 3 ppm                | 2..3               |
| DPFQ 5000-C3H3N   | C <sub>3</sub> H <sub>3</sub> N | 0-100 ppm                 | 1ppm≤15s            | ≤30s               | 5 ppm                | 15 ppm               | 2..3               |
| DPFQ 5000-NO  | NO                              | 0-250 ppm                 | 1ppm                | ≤25s               | 35 ppm               | 50 ppm               | 2..3               |
| DPFQ 5000-HCL   | HCL                             | 0-20 ppm                  | 1ppm                | ≤25s               | 3 ppm                | 5 ppm                | 2..3               |
| DPFQ 5000-SO2   | SO <sub>2</sub>                 | 0-20 ppm                  | 0.1ppm              | ≤15s               | 2 ppm                | 5 ppm                | 2..3               |
| DPFQ 5000-CO2   | CO <sub>2</sub><br>(ir)         | 0-5000 ppm<br>0-5.00%vol  | 1ppm<br>0.01%vol    | ≤30 s              | 2000 ppm<br>1.00%vol | 3000 ppm<br>2.00%vol | 5...10             |
| DPFQ 5000-CHCl <sub>3</sub>   | CHCl <sub>3</sub>               | 0-100 ppm                 | 1 ppm               | ≤15s               | 10 ppm               | 15 ppm               | 2..3               |
| DPFQ 5000-CLO <sub>2</sub>  | CLO <sub>2</sub>                | 0-50 ppm                  | 0.1 ppm             | ≤30 s              | 5 ppm                | 10 ppm               | 2..3               |
| DPFQ 5000-ETO   | ETO                             | 0-100 ppm                 | 1ppm≤15s            | ≤30s               | 20 ppm               | 50 ppm               | 2..3               |
| DPFQ 5000-CH2O  | CH <sub>2</sub> O               | 0-10 ppm                  | 0.1 ppm             | ≤30s               | 1 ppm                | 2 ppm                | 2..3               |
| DPFQ 5000-HF  | HF                              | 0-10 ppm                  | 0.1 ppm             | ≤30s               | 1 ppm                | 2 ppm                | 2..3               |
| DPFQ 5000-CH4   | CH <sub>4</sub><br>(IR)         | 0-5.00 %vol<br>0-100 %vol | 0.01%vol<br>0.1%vol | ≤10s               | 1% vol<br>3% vol     | 2% vol<br>5% vol     | 5..10              |
| DPFQ 5000-C2H4  | C <sub>2</sub> H <sub>4</sub>   | 0-200 ppm                 | 1ppm                | ≤25s               | 20 ppm               | 50 ppm               | 2..3               |
| As for unlisted detected gas and measuring range, please contact with our company |                                 |                           |                     |                    |                      |                      |                    |

## Installation and wiring

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.

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.

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.

It is recommend to install one detector in the space of 30m<sup>2</sup>~50m<sup>2</sup>.

Fix detector on the wall, uninstal 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 mm<sup>2</sup> 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.

