

Datasheet

Fixed Photo-Ionization Gas Detector

PIDScan600Series



| Description

PIDScan600 is a new generation PID gas detector produced by GDS INSTRUMENTS. This product adopts pump sampling and unique ceramic-glass PID lamp with integrated built-in temperature and humidity sensor signal compensation process assembly, which effectively reduces the interference of humidity on the instrument and brings users better experience of high stability and long service life.

PIDScan600 is mainly used to detect benzene, ketone, alcohol, gasoline, diesel and other volatile organic compounds in the ambient air.

PIDScan600 provides a 4-20mA current output (HART is optional), and 1 set of RS485-Modbus protocol, which is compatible with most control systems. It also provides 2 sets of programmable alarm relays and 1 set of fault relays, which can be used independently as a gas detection system with local visual and audible alarms.

PIDScan600 uses magnets for parameter setting and adjustment, easily calibrated and maintained without opening the cover on-site.

PIDScan600 is globally certified to be used in

various harsh environments such as petrochemical, chemical, metallurgical and environmental protection, and its certification level is up to ExdIICT6 Gb; Ex tD A21 IP67 T80°C.

| Features

- Dot-matrix LCD display and three-color ring alarm LED
- Ceramic-glass PID sensor
- "Earth-ring guard" technology ion chamber
- Built-in high quality diaphragm sampling pump (~500 ml / min)
- Pump sampling method with dual gas paths
- Built-in temperature and humidity compensation technology
- 2 Switchable units selected from the following units of μ mol/mol, mg/m³, ppm, ppb .
- The core parts have self-diagnosis function (PID lamp, pump assembly, output assembly, sensor control assembly, etc.)
- A variety of built-in different gas databases
- On-site Software upgrades available



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Specifications

System Specifications

| | |
|---------------------|--|
| DISPLAY | Graphic LCD 128 x 64 pixels, with backlit Highlight LED lights to indicate normal, fault, low alarm, high alarm status Ring LEDs Alarm |
| GAS TYPE | Benzene, ketone, alcohol, gasoline, diesel and VOCs |
| DETECTION PRINCIPLE | Ceramic-glass PID sensor Lamp(10.6eV) |
| SENSOR LIFE | 3 years |
| DETECTION METHOD | Pump(dual gas paths) |
| RESPONSE TIME | T90<10S (isobutylene) |

Environmental Specifications

| | |
|--------------------|--------------------------|
| TEMPERATURE RANGE | -40°C~+70°C |
| HUMIDITY RANGE | 0~95%RH (Non-condensing) |
| INGRESS PROTECTION | IP67(Passed PCEC test) |

Mechanical Specifications

| | |
|---------------------|---|
| MATERIAL OF HOUSING | Aluminum (SS316 optional) |
| WEIGHT | 2.8kg/5.96kg(Include waterproof box) |
| DIMENSIONS | 189*150*125mm / 361*174*150mm(Waterproof box) |
| INSTALLATION | Mounting bracket |

Electrical Specifications

| | |
|--------------------|---|
| INPUT POWER | 24 VDC nominal, 9 to 36 VDC |
| POWER CONSUMPTION | <3W, max current 125mA at 24VDC |
| SIGNAL OUTPUT | 4-20mA (HART optional) 3 relay outputs 1 low alarm relay, 1 high alarm and 1 fault relay (default low alarm relay is an active relay with 24VDC, the rest are passive SPDT) relay capacity 30VDC/2A |
| CABLE ENTRY | 4*M25×1.5 (Others are optional) |
| CABLE REQUIREMENTS | 3 wires,recommended cable diameter is 1.5mm ² |
| OPERATING MODE | Magnetic key |

Sensor Specifications

| RANGE | RESOLUTION | ACCURACY |
|------------|------------|----------|
| 0-100.0ppm | 0.1ppm | ±2%FS |
| 0-20.00ppm | 0.01ppm | ±2%FS |
| 0-1000ppm | 1ppm | ±5%FS |

*For other ranges, please consult your local GDS INSTRUMENTS representative

Approvals

| | |
|------|--|
| FTZÚ | Ex II 2G Ex d IIC T6 Gb |
| PCEC | Ex d IIC T6 Gb Ex tD A21 IP67 T80°C |

Product Configuration

| |
|-------------------------|
| PIDScan600 Gas Detector |
| Waterproof box |
| Sampling filter |
| Cleaning filter |
| Mounting bracket |
| Magnetic key |
| Manual |

*For standard configuration, please refer to the actual product provided by the factory.And for more accessories, please consult your local GDS INSTRUMENTS representative.



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