

Datasheet

Fixed Photo-Ionization Gas Detector

PIDScan800Series



| Description

PIDScan800 is a new generation PID gas detector produced by GDS INSTRUMENTS. It is PID gas detector with automatic cleaning and automatic zeroing functions. 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.

PIDScan800 is mainly used to detect benzene, ketone, alcohol, gasoline, diesel and other volatile organic compounds in the ambient air.

PIDScan800 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.

PIDScan800 uses magnets for parameter setting and adjustment, easily calibrated and maintained without opening the cover on-site.

PIDScan800 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
- Automatic ion chamber cleaning function (Patented technology)
- Auto-zero calibration technology (Patented technology)
- Built-in temperature and humidity compensation technology
- 2 Switchable units selected from the following units of $\mu\text{mol/mol}$, mg/m^3 , 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) path 1: sampling path 2: cleaning and zeroing
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

PIDScan800 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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