

Trustworthy Certification

PROSENSE "PQD" Series fixed gas detectors are certified with **ATEX/IECEX/UKEX/INMETRO/ECASEx, UL/CSA, and MED/MARINE**.

Ex-proof Safety

The continuous measurement of toxic and explosive gases is done safely in hazardous areas thanks to the ex-proof housing.

Performance Approval

It complies with the measurement performance criteria in accordance with the **IEC/EN 60079-29-1** standard.

Functional Safety

Prosense promotes SIL approved products to reduce safety risks associated with increasingly complicated systems as malfunctioning equipment could pose a potential risk. Prosense PQ Series is certified by TUV Rheinland as **SIL2/SIL3** functional safety level.

Robust and Durable

SS316 stainless steel sensor head performs perfectly under harsh environmental conditions with the IP65/IP66 protection class.

Accurate Readings

Pellistor, Electrochemical, PID, and Infrared sensors undoubtedly provide an accurate and sensitive measurement.

Ready to Operate

4-20mA Analog and Modbus RS485 RTU outputs are provided onboard to operate properly without any additional setup.

Easy Maintenance

PQD Series detectors allow sensor replacement with pre-calibrated sensor head thanks to the **Procell** technology.



OLED Display

The OLED screen can be easily read from any angle.

SAFELOG Data Logger

PQD Series records status up to 250 events. In case of sudden power cut, you can save the data thanks to the cell battery.

Automatic Calibration

Detector calibration can be done automatically via preset values recorded in detector software once calibration requirements are provided.

Pellistor-Saver Mode

Detector power off the sensor in high gas concentration in order to properly secure the operational lifetime of pellistor sensor.

Auto Analog Signal Calibration and Monitoring

PQD Series detectors continuously check the analog output signal level to match the measurement level before promptly transferred to the panel. PQD Series adjusts the signal level in case of any deviation and generates a fault signal when the adjustment fails.

Zero Suppression

Adjusting, the detector can show a certain measurement level as 0 (zero) to avoid unnecessary concerns.

Simple External Equipment Control

Optional relay module enables you to use it as an independent gas detection system with two arbitrarily adjustable concentration alarms and one fault alarm.

Continuous Self-Test

The detectors check itself continuously to make sure it operates perfectly and indicates a fault in case of any failure.

Adjustable Parameters

All parameters can be easily changed according to the application requirements or facility standards.

Remote Display

Depending on the application requirements, the screen can be placed separately.

Easy Status Recognition

Colored LEDs (green, yellow and red) provide additional alarm and status information.

Maintenance via Software

Prosense provides software to maintain your active system easily and calibrate the gas detectors properly via computer.

Applications

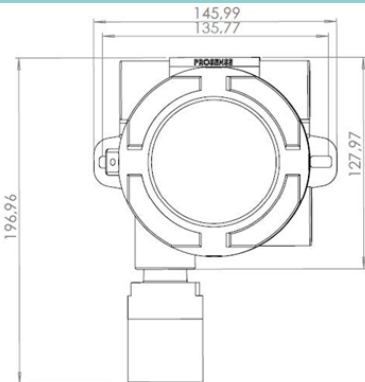
- Oil&Gas
- Petrochemical
- Onshore/Offshore
- Steel-Metal Industry
- Chemical Industry
- Process Industry
- Gas Distribution Stations
- Water Treatment Plants

SIL2/SIL3, UL, INMETRO, CSA, EAC, MED, MARINE certified versions are optional.

PQD Series Gas Detectors Datasheet

Sensing Element	PQD-XY36: PID PQD-XY35: Pellistor PQD-XY34: Electrochemical PQD-XY34: Electrochemical PQD-XY33: Infrared PQD-XY31: Semi-conductor PQD-XY37: MPS
Output Signal	4-20mA Analog and RS485 Modbus RTU, Optional HART and Relay outputs
Sensor Warm-up Time	60sec
Response Time (T90)	<30sec*
Accuracy	%±1
Operating Temperature	-40°C ~ +70°C *
Humidity	0~100%RH * Non-Condensing
Input	Min 10VDC - Max 32VDC - Nominal 24VDC
Display	128x64 Graphic OLED 5 LED indicator for detector status
Event logging	Records alarm, fault and maintenance events up to 250 logs
Power Consumption	Max. 4W
Optional Relay Outputs	2 Alarm Relays (NO/NC adjustable) 1 Fault Relay (NO) (Rating 1.25A 30VDC)
Cable Entry	3x1/2"NPT or 3x 3/4"NPT or 3xM20
IP Rating	IP65/IP66 Optional IP66 (Sensor Head)
Junction Box	Epoxy Painted Die-Cast Aluminum / Optional 316 Stainless Steel
Sensor Head	316L Stainless Steel
Dimensions/Weight	196,96x145,99x112mm / 2600gr Aluminium Version —4500gr SS316 Version
Marking	II 2 G Ex db IIC T6 Gb II 2 D Ex tb IIIC T85°C Db Class I, Division 1, Group A, B, C, D Class I Zone 1 Group IIC
Hazardous Class	Zone 1 - Zone 2 - Zone 21-Zone 22
Certificates	UL Certificate: E521536 ATEX Certificate: UL 21 ATEX 2656X IECEx Certificate: IECEx ULD 21.0033X UKEX Certificate: UL22UKEX2376X Performance Certificate: FTZU 18 ATEX 0086 Functional Safety Certificate: TUV Rheinland - 968/FSP 2091.00/21 BV Type Approval: 73723/A1 BV MED Certificate: 79055/A0 MED
Standards	IEC EN 60079-0, UL 60079-0, CSA C22.2 No. 60079-0 IEC EN 60079-1, UL 60079-1, C22.2 No. 60079-1 IEC EN 60079-31, UL 60079-31, •CSA C22.2 No. 60079-31 IEC EN 60079-29-1 UL61010-1, CSA C22.2 No. 61010-1, UL 1203, CSA C22.2 No. 30 MARINE EQUIPMENT DIRECTIVE 2014/90/EU

*When set to continuous measurement.



Optional Modules

- **PQ-3R+:** 2 Alarms, 1 Fault Relay Output Module
- **P-IP66:** IP66 SS316L Sensor Head Adaptor
- **PQD-SS:** Stainless Steel Junction Box
- **P-GTA:** Gas Collection Cone
- **P-ASU:** Prosense Flow Adapter
- **PQ-DISP:** Remote Display
- **PQ-PD05:** PQ Series Hand Held Terminal
- **P-RSM:** Remote Sensor Module
- **PQ-HART:** HART Output Module
- **PY-PMK:** Pipe Mounting Kit
- **PY-SS:** Sun/Rain Shade
- **P-SH30-DMK:** Duct Mounting Kit
- **PK-K30T:** Calibration Adapter

For more information please contact with info@prosense.com.tr

PQD Series Gas Detectors Datasheet

XY	Gas	Product Code**	Sensor Type	Measuring Range*
30	LPG	PQD – 3035	Pellistor	0-100%LEL
30	LPG	PQD – 3033	Infrared	0-100%LEL
31	Methane	PQD – 3135	Pellistor	0-100%LEL
31	Methane	PQD – 3133	Infrared	0-100%LEL
32	Petrol Vapours	PQD – 3235	Pellistor	0-100%LEL
32	Petrol Vapours	PQD – 3233	Infrared	0-100%LEL
33	n-Butane	PQD – 3335	Pellistor	0-100%LEL
33	n-Butane	PQD – 3333	Infrared	0-100%LEL
34	Propane	PQD – 3435	Pellistor	0-100%LEL
34	Propane	PQD – 3433	Infrared	0-100%LEL
35	Hexane	PQD – 3535	Pellistor	0-100%LEL
35	Hexane	PQD – 3533	Infrared	0-100%LEL
36	Hydrogen	PQD – 3635	Pellistor	0-100%LEL
37	Pentane	PQD – 3735	Pellistor	0-100%LEL
37	Pentane	PQD – 3733	Infrared	0-100%LEL
38	Toluene	PQD – 3835	Pellistor	0-100%LEL
39	Methyl Alcohol	PQD – 3935	Pellistor	0-100%LEL
40	Heptane	PQD – 4035	Pellistor	0-100%LEL
41	Octane	PQD – 4135	Pellistor	0-100%LEL
42	Ethyl Alcohol	PQD – 4235	Pellistor	0-100%LEL
43	Iso Propanol	PQD – 4335	Pellistor	0-100%LEL
44	Carbon monoxide	PQD – 4434	Electrochemical	0-300ppm
44	Carbon monoxide	PQD – 4434/B	Electrochemical	0-500ppm
44	Carbon monoxide	PQD – 4434/C	Electrochemical	0-1000ppm
44	Carbon monoxide	PQD – 4435	Pellistor	0-100%LEL
45	Acetone	PQD – 4535	Pellistor	0-100%LEL
46	Methyl Ethyl Ketone	PQD – 4635	Pellistor	0-100%LEL
47	Ethyl Acetate	PQD – 4735	Pellistor	0-100%LEL
48	Ammonia	PQD – 4834	Electrochemical	0-100ppm
48	Ammonia	PQD – 4834/B	Electrochemical	0-1000ppm
48	Ammonia	PQD – 4835	Pellistor	0-100%LEL
49	Ethylene	PQD – 4935	Pellistor	0-100%LEL
50	Acetic Acid	PQD – 5035	Pellistor	0-100%LEL
51	Butyl Acetate	PQD – 5135	Pellistor	0-100%LEL
52	Cyclo Hexane	PQD – 5235	Pellistor	0-100%LEL
53	Cyclo Pentane	PQD – 5335	Pellistor	0-100%LEL
54	Dioxane	PQD – 5435	Pellistor	0-100%LEL
55	Ethane	PQD – 5535	Pellistor	0-100%LEL
56	Butyl Alcohol	PQD – 5635	Pellistor	0-100%LEL
57	Styrene	PQD – 5735	Pellistor	0-100%LEL
58	Propylene	PQD – 5835	Pellistor	0-100%LEL

PQD Series Gas Detectors Datasheet

XY	Gas	Product Code**	Sensor Type	Measuring Range*
59	Xylene	PQD – 5935	Pellistor	0-100%LEL
60	Acetylene	PQD – 6035	Pellistor	0-100%LEL
61	Benzene	PQD – 6135	Pellistor	0-100%LEL
62	Ethylene Oxide	PQD – 6234	Electrochemical	0-20ppm
63	Vinyl Acetate	PQD – 6335	Pellistor	0-100%LEL
64	Hydrogen Sulfide	PQD – 6434	Electrochemical	0-100ppm
65	Oxygen	PQD – 6534	Electrochemical	0-25%VOL
66	Sulphur Dioxide	PQD – 6634	Electrochemical	0-10ppm
67	Nitric Oxide	PQD – 6734	Electrochemical	0-250ppm
68	Nitrogen Dioxide	PQD – 6834	Electrochemical	0-30ppm
69	Chlorine	PQD – 6934	Electrochemical	0-10ppm
70	Hydrocarbon	PQD – 7035	Pellistor	0-100%LEL
70	Hydrocarbon	PQD – 7033	Infrared	0-100%LEL
70	Hydrocarbon	PQD– 7037	MPS	0-100%LEL
71	Carbon Dioxide	PQD – 7133	Infrared	0-5000ppm
71	Carbon Dioxide	PQD – 7133/B	Infrared	0-5%VOL
72	Freon	PQD – 7231	Semiconductor	0-2000ppm
73	JP8 Fuel	PQD – 7335	Pellistor	0-100%LEL
74	Formaldehyde	PQD – 7434	Electrochemical	0-10ppm
74	Formaldehyde	PQD – 7435	Pellistor	0-100%LEL
75	Hydrogen Cyanide	PQD – 7534	Electrochemical	0-25ppm
76	Hydrogen Peroxide	PQD – 7634	Electrochemical	0-300ppm
77	Nonane	PQD – 7735	Pellistor	0-100%LEL
78	Acetaldehyde	PQD – 7835	Pellistor	0-100%LEL
79	Hydrogen Chloride	PQD – 7934	Electrochemical	0-25ppm
81	VOC	PQD – 8136	PID	0-100ppm
82	Ozone	PQD – 8234	Electrochemical	0-1ppm
83	Hydrofluoric Acid (HF)	PQD – 8334	Electrochemical	0-10ppm
84	Phosphine	PQD – 8434	Electrochemical	0-10ppm
85	Isobutylene	PQD – 8535	Pellistor	0-100%LEL
86	Silane	PQD – 8634	Electrochemical	0-1ppm
87	Diborane	PQD – 8734	Electrochemical	0-1ppm
88	Arsine	PQD – 8834	Electrochemical	0-1ppm
89	Germane	PQD – 8934	Electrochemical	0-1ppm
90	Air Quality	PQD – 9031	Semiconductor	0-30ppm
91	A2L Refrigerant Gas	PQD – 9131	Semiconductor	0-10000ppm
92	Fluorine	PQD – 9234	Electrochemical	0-5ppm
93	R1234ze Refrigerant Gas	PQD – 9333	Infrared	0-2000ppm
94	SF6 Sulfur Hexafluoride	PQD – 9433	Infrared	0-2000ppm
95	Fluorine	PQD – 9534	Electrochemical	0-5ppm
96	Chlorine Dioxide	PQD – 9634	Electrochemical	0-20ppm
97	Bromine	PQD – 9734	Electrochemical	0-5ppm

* Please consult Prosense sales team for specific measuring ranges and other gases those are not listed here.

** Product code for SIL versions starts with PQD-S.

For more information info@prosense.com.tr

Prosense gas detectors are fully tested and calibrated before delivery. Gas detectors must always be routinely controlled and calibrated regarding EN 60079-29-2.