PROSENSE COMPANY OVERVIEW

Prosense
makes life safer

Prosense, founded in 2006 in Istanbul, is Türkiye's leading gas detection company. Itmanufactures certified gas detection systems (ATEX, IECEx, SIL2/3, UL, CSA, INMETRO,etc.) and has a branch in Stuttgart, Germany.

Prosense offers gas detection solutions in over 80 countries to protect people, assets, and the environment.

The company has received multiple growth and technology awards and holds ISO 9001, ISO17025, and QAN/QAR certifications, focusing on quality and innovation from day one.

Business Scope:
Design, development, manufacturing, and service(installation, commissioning, maintenance, calibration) of gas detection and explosion-proof equipment

Location:
Head Quarter and Factory: Istanbul Türkiye, Branch: Stuttgart - Germany

Certification:
ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018, ISO 17025, QAN, QAR, ATEX,IECEx, SIL2, SIL3, UL, INMETRO, Marine-Type, MED, UKCA, CSA, ECASEx, EAC
Civil Defence: UAE, Bahrain, KSA, Oman / AVL: ADNOC Prequalified

Number of Employees:
50+ people

Products and Services:
Heavy Industrial, Industrial, Light Industrial and Safe Area Gas Detectors, Industrial and Commercial Gas Control Panels, Industrial and Commercial Flame Detectors, Warning Devices, Calibration Tools, Gas Sampling System, Explosion-proof Equipment, Gas Monitoring System through Cloud and Local Network

Sensor Technologies:
Catalytic, Pellistor, Infrared, Electrochemical, PID, Semiconductor, MPS

Gas Range:
Solutions over 1000 gases/compounds(Combustible, Toxic, Oxygen, VOC gases)

Industries&Applications
Oil&Gas, Refinery&Petrochemical, Hydrogen, LPG&LNG, BioGas, Iron&Steel, Food&Bevarege, Chemical, HVAC - Refrigeration, Medical&Pharmaceutical, Mining, Paper&Pulp, Automative, Marine, Power Generation, Semiconductor, Waste Water Treatment, Paper&Pulp, Agriculture, Research Centers&Laboratories, Textile, Car Park, Aerospace/Defence, Aviation, Coating&Printing, and many other process applications.

References:
Petrobras, Honeywell, Emerson, Lukoil, Shell, Siemens, Kuwait Energy, Unilever, BASF, TPAO, Schlumberger, ExxonMobil, GazProm Neft, TAQA, Bonatti, Petronas, Socar, Intel, AMD, CNPC, Nestle, Air Liquide, Endress Hauser, Petroleum Development Oman, Siemens Energy, Nestle, CocaCola, Dubai Municipality, WOQOD, Emaar, WestSide Oil Cooperation Australia, AkzoNobel, CocaCola, Sembcorp, OMV, Intel, Halliburton, Qatar Armed Forces, OQ, etc.

Prosense

PQD Series Gas Detectors Datasheet

Trustworthy Certification

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

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

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
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℃ ~ +70℃ *
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	1/2"NPT - 3/4"NPT - M20
IP Rating	IP65/IP66 | Optional IP66 (Sensor Head)
Junction Box	Epoxy Painted Die-Cast Aluminum / 316 Stainless Steel
Sensor Head	316L Stainless Steel
Dimensions/Weight	196,96x145,99x112mm / 2100gr
Marking	II 2 G Ex db IIC T6 Gb II 2 D Ex tb IIIC T85℃ Db Class I, Division 1, Group A, B, C & D Class I, Zone 1, AEx db IIC T6 Gb, Ex db IIC T6 Gb, Zone 21, AEx tb IIIC T85℃ Db and Ex tb IIIC T85℃ Db
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
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

*Sensor dependent
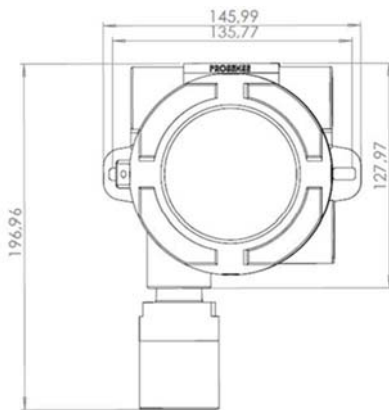
Optional Modules

- **PQ-3R+:** 2 Alarms and 1 Fault (NO/NC adjustable) Relay Output Card
- **P-IP66:** 316L Stainless Steel Sensor Head Adaptor to increase IP rating
- **PQD-SS:** Stainless Steel Junction Box
- **P-GTA:** Gas Collection Cone
- **P-ASU:** Prosense Sampling Unit
- **PQ-DISP:** Remote Display
- **PQ-PD05:** PQ Series Hand Terminal
- **P-RSM:** Remote Sensor Module
- **PQ-HART:** HART Module
- **PY-PMK:** Pipe Mounting Kit
- **PY-SS:** Sun/Rain Shade

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

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

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
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	0-100/0-1000ppm
82	Ozone	PQD – 8234	Electrochemical	0-1ppm/0-5ppm
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

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

PX Series Gas Detector Datasheet

PXD

PXN

Trustworthy Certification

PROSENSE PXSeries fixed gas detectors are certified according to **UL, CSA, ATEX, IECEx, UKEX, INMETRO** standards.

Ex-proof Safety

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

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

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

LCD Display

The LCD display provides 128x64 screen to show measurement and menu access to adjust parameters on PXD models.

Auto Analog Signal Calibration and Monitoring

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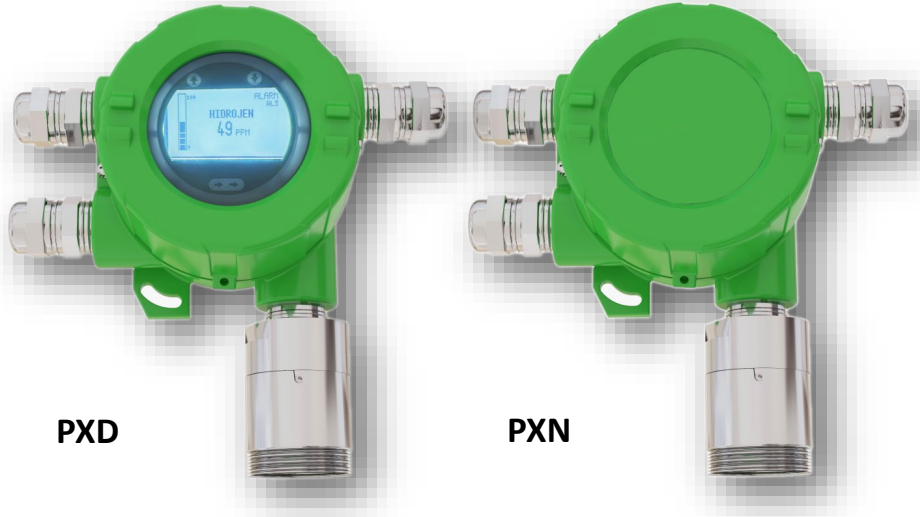
Automatic Calibration

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

Pellistor-Saver Mode

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

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.

PXD—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

PX Series Gas Detector Datasheet

Specifications	PX(D/N)-XY36	PX(D/N)-XY35	PX(D/N)-XY34	PX(D/N)-XY33	PX(D/N)-XY31
Sensing Element	PID	Pellistor	Electrochemical	Infrared	Semi-Conductor
Output Signal	4-20mA Analog and RS485 Modbus RTU				
Sensor Warm-up Time	60sec				
Response Time (T90)	<30sec*	<25sec	<30sec**	<30sec	<15sec
Accuracy	%±1				
Operating Temperature	-40°C ~ +70°C **				
Humidity	0~ 100%RH ** Non-Condensing				
Input	Min 12VDC - Max 28VDC - Nominal 24VDC				
Display (PXD)	128x64 Graphic TFT 4 LED indicator for detector status				
Power Consumption	Max. 4W				
Optional Relay Outputs	2 Alarms (Programmable) and 1 Fault (All relays are NO/NC adjustable)				
Cable Entry	1/2"NPT - 3/4"NPT - M20				
IP Rating	IP65/IP66 Optional IP66 (Sensor Head)				
Junction Box	Epoxy Painted Die-Cast Aluminum / 316 Stainless Steel				
Sensor Head	316L Stainless Steel				
Dimensions/Weight	190mm x 120mm x 102mm / 1750 gram				
Ex Marking	Class I/II, Div. 1/2, Groups A, B, C & D, Groups E, F &G (T6/T5) Class I, Zone 1/2 AEx d IIC (T6/T5) II 2 GD Ex db IIC T6 Gb Ex tb IIIC T85°C Db -40°C ≤ Ta ≤ +70°C				
Hazardous Class	Div. 1/2, Zone 1/21 - Zone 2 /22				
Certificates	**UL 22 ATEX 2729X - UL22UKEX2376X - IECEx ULD 22.0010X - E521536**				
Standards	• IEC EN 60079-0 • IEC EN 60079-1 • IEC EN 60079-31				

*When set to continuous measurement.
**Sensor dependent.
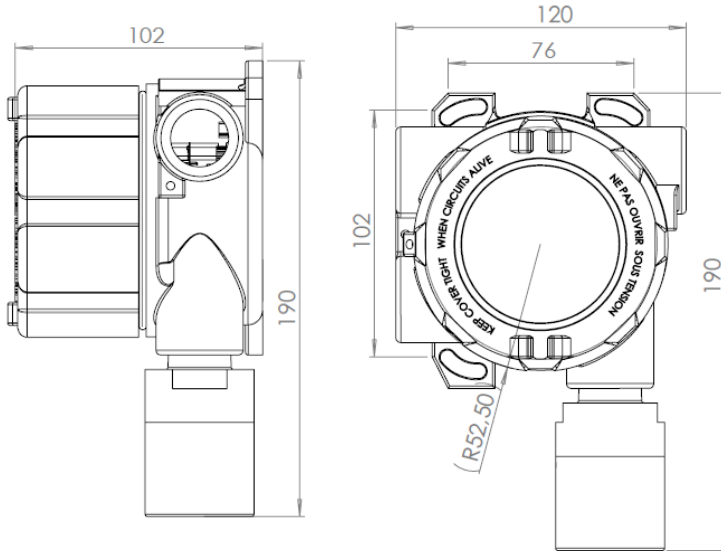
Optional Modules

- **PX-3R+:** 2 Alarms and 1 Fault (NO/NC adjustable) relay output card
- **PX-HART:** Hart Modem
- **P-IP66:** 316L Stainless steel sensor head adaptor to increase IP rating
- **P-GTA:** Ceiling mount collecting
- **P-ASU:** Prosense sampling unit
- **PX-PD05:** PX Series Hand Terminal

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

PX Series Gas Detector Datasheet

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

XY	Gas	Product Code	Sensor Type	Measuring Range*
59	Xylene	PX(D/N) – 5935	Pellistor	0-100%LEL
60	Acetylene	PX(D/N) – 6035	Pellistor	0-100%LEL
61	Benzene	PX(D/N) – 6135	Pellistor	0-100%LEL
62	Ethylene Oxide	PX(D/N) – 6234	Electrochemical	0-20ppm
63	Vinyl Acetate	PX(D/N) – 6335	Pellistor	0-100%LEL
64	Hydrogen Sulfide	PX(D/N) – 6434	Electrochemical	0-100ppm
65	Oxygen	PX(D/N) – 6534	Electrochemical	0-25%VOL
66	Sulphur Dioxide	PX(D/N) – 6634	Electrochemical	0-10ppm
67	Nitric Oxide	PX(D/N) – 6734	Electrochemical	0-250ppm
68	Nitrogen Dioxide	PX(D/N) – 6834	Electrochemical	0-30ppm
69	Chlorine	PX(D/N) – 6934	Electrochemical	0-10ppm
70	Hydrocarbon	PX(D/N) – 7035	Pellistor	0-100%LEL
70	Hydrocarbon	PX(D/N) – 7033	Infrared	0-100%LEL
71	Carbon Dioxide	PX(D/N) – 7133	Infrared	0-5000ppm
71	Carbon Dioxide	PX(D/N) – 7133/B	Infrared	0-5%VOL
72	Freon	PX(D/N) – 7231	Semiconductor	0-2000ppm
73	JP8 Fuel	PX(D/N) – 7335	Pellistor	0-100%LEL
74	Formaldehyde	PX(D/N) – 7434	Electrochemical	0-10ppm
74	Formaldehyde	PX(D/N) – 7435	Pellistor	0-100%LEL
75	Hydrogen Cyanide	PX(D/N) – 7534	Electrochemical	0-25ppm
76	Hydrogen Peroxide	PX(D/N) – 7634	Electrochemical	*
77	Nonane	PX(D/N) – 7735	Pellistor	0-100%LEL
78	Acetaldehyde	PX(D/N) – 7835	Pellistor	0-100%LEL
79	Hydrogen Chloride	PX(D/N) – 7934	Electrochemical	0-25ppm
81	VOC	PX(D/N) – 8136	PID	*
82	Ozone	PX(D/N) – 8234	Electrochemical	*
83	Hydrofluoric Acid (HF)	PX(D/N) – 8334	Electrochemical	*
84	Phosphine	PX(D/N) – 8434	Electrochemical	0-10ppm
85	Isobutylene	PX(D/N) – 8535	Pellistor	0-100%LEL

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

P Series Gas Detectors Datasheet

Trustworthy Certification

PROSENSE "P" Series fixed gas detectors are certified with ATEX/IECEx.

Ex-proof Safety

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

Robust and Durable

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

Accurate Readings

Pellistor, Electrochemical, 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

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

Automatic Calibration

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

Pellistor-Saver Mode

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

Auto Analog Signal Monitoring

P Series detectors carefully check the analog output signal level continuously to match the measurement level before promptly transferred to the panel. P Series adjust the signal level in case of any deviation and generate fault signal when adjustment fails.

Universal Communication Protocols

- *4-20mA Analog and Modbus RS485 RTU outputs are simple to operate efficiently.*
- *P Series open-source Modbus codes support successful integration to SCADA systems.*
- *P-3R+ relay module can be properly integrated into P Series detectors for extra operations.*

Zero Suppression

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

Fail-Safe Technology Alarming

Alarm 1 and Alarm 2 relays are easy to set to default LEL, ppm, VOL levels. The fault relay output properly indicates fault status.

Continuous Self-Test

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

Maintenance via Software

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

Applications

- *Process Industry*
- *Water Treatment*
- *Chemical Industry*
- *Food and Medicine Facilities*
- *Metal Industry*
- *Gas Distribution Stations*
- *Laboratories*

P Series Gas Detectors Datasheet

Specifications	P-XY35	P-XY34	P-XY33	P-XY31
Sensing Element	Pellistor	Electrochemical	Infrared	Semi-Conductor
Output Signal	4-20mA and Modbus RS485 RTU*			
Sensor Warm-up Time	60sec			
Response Time (T90)	<20sec	<30sec**	<30sec	<15sec
Accuracy	%±1			
Operating Temperature	-40℃～+70℃			
Humidity	5～95%RH			
Input	Min 10VDC - Max 32VDC - Nominal 24VDC			
Power Consumption	Max. 4W			
Optional Relay Outputs	2 Alarm Relays (NO/NC adjustable) 1 Fault Relay (NO)			
Cable Entry	2 x 1/2"NPT			
IP Rating	IP65 / Optional IP66 (Sensor Head)			
Junction Box	Epoxy Painted Die-Cast Aluminum			
Sensor Head	316L Stainless Steel			
Dimensions/Weight	183x118,15x88mm / 1420gr			
ATEX Marking	II 2G Ex db IIC T5/T4 Gb			
Hazardous Class	Zone 1 or Zone 2			
Certificates	•IMQ 19 ATEX 045 X • IECEx IMQ 18.0009X			
Standards	• IEC EN 60079-0 • IEC EN 60079-1 • IEC EN 60079-18			

* To manage MODBUS Address optional Prosense Hand Terminal must be ordered.
** Sensor dependent.
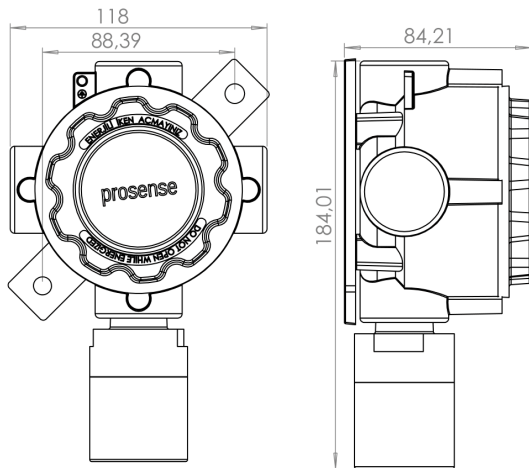
Optional Modules

- **P-3R+:** 2 Alarms and 1 Fault (NO/NC adjustable) relay output card.
- **P-IP66:** 316L Stainless steel sensor head adaptor to increase IP rating.
- **P-GTA:** Ceiling mount collecting
- **UPQ-BTX:** Enclosure with 4 entries.
- **P-ASU:** Sampling Unit
- **PQ-PD05: Prosense** Hand Terminal

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

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

XY	Gas	Product Code	Sensor Type	Measuring Range*
59	Xylene	P – 5935	Pellistor	0-100%LEL
60	Acetylene	P – 6035	Pellistor	0-100%LEL
61	Benzene	P – 6135	Pellistor	0-100%LEL
62	Ethylene Oxide	P – 6234	Electrochemical	0-20ppm
63	Vinyl Acetate	P – 6335	Pellistor	0-100%LEL
64	Hydrogen Sulfide	P – 6434	Electrochemical	0-100ppm
64	Hydrogen Sulfide	P – 6434/B	Electrochemical	0-500ppm
65	Oxygen	P – 6534	Electrochemical	0-25%VOL
66	Sulphur Dioxide	P – 6634	Electrochemical	0-10ppm
67	Nitric Oxide	P – 6734	Electrochemical	0-250ppm
68	Nitrogen Dioxide	P – 6834	Electrochemical	0-30ppm
69	Chlorine	P – 6934	Electrochemical	0-10ppm
70	Hydrocarbon	P – 7035	Pellistor	0-100%LEL
70	Hydrocarbon	P – 7033	Infrared	0-100%LEL
71	Carbon Dioxide	P – 7133	Infrared	0-5000ppm
71	Carbon Dioxide	P – 7133/B	Infrared	0-5%VOL
72	Freon	P – 7231	Semiconductor	0-2000ppm
73	JP8 Fuel	P – 7335	Pellistor	0-100%LEL
74	Formaldehyde	P – 7434	Electrochemical	0-10ppm
75	Hydrogen Cyanide	P – 7534	Electrochemical	0-25ppm
77	Nonane	P – 7735	Pellistor	0-100%LEL
78	Acetaldehyde	P – 7835	Pellistor	0-100%LEL
79	Hydrogen Chloride	P – 7934	Electrochemical	0-30ppm
82	Ozone	P – 8234	Electrochemical	*
83	Hydrofluoric Acid (HF)	P – 8334	Electrochemical	*
84	Phosphine	P – 8434	Electrochemical	0-10ppm
85	Isobutylene	P – 8535	Pellistor	0-100%LEL
86	Silane	P – 8634	Electrochemical	*
87	Diborane	P – 8734	Electrochemical	*
88	Arsine	P – 8834	Electrochemical	*
89	Germane	P – 8934	Electrochemical	*
90	Air Quality	P – 9031	Semiconductor	0-30ppm
91	A2L Refrigerant Gas	P – 9131	Semiconductor	0-10000ppm
92	Fluorine	P – 9234	Electrochemical	0-5ppm

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

PE Series Gas Detectors Datasheet

Trustworthy Certification

PROSENSE "PE" Series fixed gas detectors are certified with ATEX/IECEx.

Ex-proof Safety

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

Cost-Effective Solutions

"PE" series offers cost-effective solutions in Oil&Gas industries.

Robust and Durable

"PE" performs perfectly under harsh environmental conditions with the IP65 protection class.

Accurate Readings

Long-lasting Catalytic sensors undoubtedly provide an accurate and sensitive measurement.

Universal 4-20mA Analog Signal Output

4-20mA Analog output is simple to operate efficiently and it is universally usable in any control panel.

Quick Response Time

Catalytic sensor in PE offers quick response time with affordable prices.

Durable Sensor

PE Series uses a special Catalytic sensor which has a long life-time

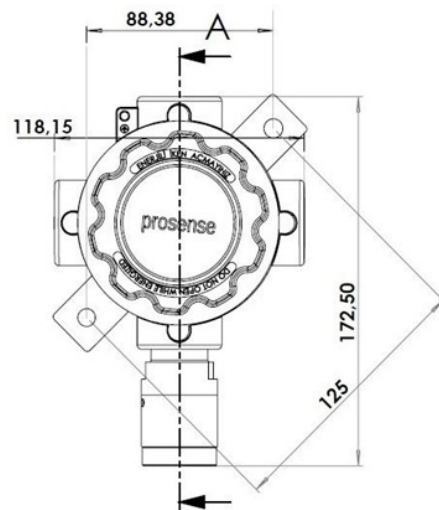### Fail-Safe Technology Alarming

Optional relay module is suitable to use as Alarm1 and Fault. Additionally, it can be arranged as Alarm1 and Alarm2.

Applications

- LNG/LPG
- Oil&Gas
- Gas Distribution Stations

Optional Modules

• **PE-2R:** 2 Relays output card (Alarm1-Fault or Alarm1-Alarm2) (NO/NC adjustable)

Specifications	P-XY12PE
Sensing Element	Catalytic
Output Signal	4-20mA Analog
Sensor Warm-up Time	60sec
Response Time (T90)	<15sec
Accuracy	%±2
Operating Temperature	-40℃ ~ +70℃
Humidity	5 ~ 95%RH Non-Condensing
Input	Min 10VDC - Max 28VDC - Nominal 24VDC
Power Consumption	Max. 4W
Optional Relay Outputs	2 Relay Contacts (Alarm1-Fault or Alarm1-Alarm2) (All relays are NO/NC adjustable)
Cable Entry	1/2"NPT
IP Rating	IP65
Junction Box	Epoxy Painted Die-Cast Aluminum
Sensor Head	Nickel-Plated Brass
Dimensions/Weight	172,5x118,15x88mm / 1150gr
ATEX Marking	II 2G Ex db IIC T4-T5 Gb
Hazardous Class	Zone 1 or Zone 2
Certificates	•IMQ 19 ATEX 045 X • IECEx IMQ 18.0009X
Standards	• IEC EN 60079-0 • IEC EN 60079-1 • IEC EN 60079-18

XY	Gas	Product Code	Sensor Type	Measuring Range
30	LPG	P-3012PE	Catalytic	0-100%LEL
31	Methane	P-3112PE	Catalytic	0-100%LEL
32	Petrol Vapour	P-3212PE	Catalytic	0-100%LEL
33	n-Butane	P-3312PE	Catalytic	0-100%LEL
34	Propane	P-3412PE	Catalytic	0-100%LEL
36	Hydrogen	P-3612PE	Catalytic	0-100%LEL

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

Prosense
makes life safer

Combination of Gas and Shock Impact Detectors

PE-KAYO Series specially designed for the Oil&Gas stations as it has multiple functions. The detector has a special accelerometer chip inside to monitor physical bumps happening on the location where the device installed along with gas measurement functions. It can generate an alarm to cut the gas and oil flow if car or truck hits the detector or the mounted shaft.

Trustworthy Certification

PROSENSE "PE-KAYO" Series fixed gas detectors are certified with ATEX/IECEx.

Ex-proof Safety

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

Cost-Effective Solutions

"PE-KAYO" Series offers cost-effective solutions in Oil&Gas industry.

Robust and Durable

"PE-KAYO" performs perfectly under the harsh environmental conditions with the IP65 protection class.

Accurate Readings

Long-lasting Catalytic sensors undoubtedly provide an accurate and sensitive gas detection.

Universal Outputs

4-20mA Analog, Modbus RS485 RTU, Relay and Voltage outputs are simple to operate efficiently and universally.
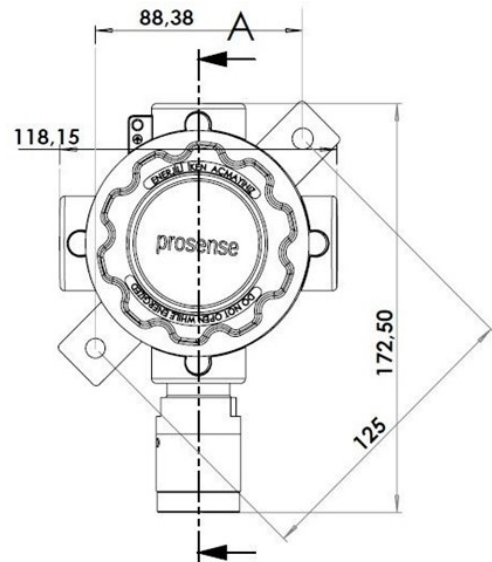
Quick Response Time

Catalytic sensor in PE-KAYO offers quick response time for detecting combustible gases.

Durable Sensor

PE-KAYO Series uses a special Catalyic sensor which has a long life-time.

Fail-Safe Technology Alarming

Alarm 1 and Alarm 2 relays are easy to set to default LEL levels. The fault relay output properly indicates fault status.

Applications

- LNG/LPG
- Oil&Gas
- Gas Distribution Stations

Optional Modules

- **P-3R+:** 2 Alarms and 1 Fault (NO/NC adjustable) relay output card.

PE-KAYO Series Gas&Impact Detectors Datasheet

Specifications	P-XY12PEK
Sensing Element	Catalytic
Motion Sensor	3 axis (3D accelerometer)
Output Signal	4-20mA Analog Modbus RS485 RTU
Sensor Warm-up Time	60sec
Response Time (T90)	<15sec
Accuracy	%±1
Operating Temperature	-40°C ~ +70°C
Humidity	5 ~ 95%RH Non-Condensing
Input	Min 10VDC - Max 32VDC - Nominal 24VDC
Power Consumption	Max.4W
Optional Relay Outputs	2 Alarms (Selectable) and 1 Fault (All relays are NO/NC adjustable)
Cable Entry	1/2"NPT
IP Rating	IP65
Junction Box	Epoxy Painted Die-Cast Aluminium
Sensor Head	Nickel-Plated Brass
Dimensions/Weight	172,5x118,15x88mm / 1150gr
ATEX Marking	II 2G Ex db IIC T5 Gb
Hazardous Class	Zone 1 - Zone 2
Certificates	•IMQ 19 ATEX 045 X •IECEx IMQ 18.0009X
Standards	•IEC EN 60079-0 •IEC EN 60079-1

XY	Gas	Product Code	Sensor Type	Measuring Range
30	LPG	P-3012PEK	Catalytic	0-100%LEL
31	Methane	P-3112PEK	Catalytic	0-100%LEL
32	Petrol Vapour	P-3212PEK	Catalytic	0-100%LEL
33	n-Butane	P-3312PEK	Catalytic	0-100%LEL
34	Propane	P-3412PEK	Catalytic	0-100%LEL

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

PC3 Series Gas Detectors Datasheet

High Price-Performance Ratio

PC3 has a certain higher price-performance ratio considering its substitutes in the market.

Well-Suited Solution for Light Indusrty

PC3 is specially designed for the light industry as a Category 3 device.

Accurate Readings

Electrochemical, and Catalytic sensors undoubtedly provide an accurate and sensitive measurement.

Ready to Operate

4-20mA Analog is provided onboard to operate properly without any additional setup. Additionally, it can be integrated into other systems with Modbus RS485 RTU and relay module.

Automatic Calibration

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

Fail-Safe Technology Alarming

Alarm 1 and Alarm 2 relays are easy to set to default LEL, ppm, VOL levels. The fault relay output properly indicates fault status.

Robust and Reliable Housing

Epoxy painted aluminum housing and IP65 protection class allow to use in harsh environmental conditions.
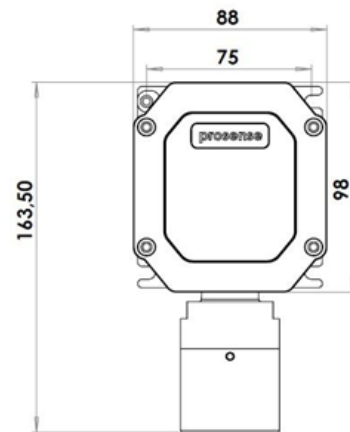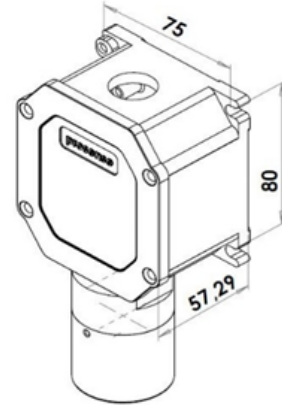
Universal Outputs

4-20mA Analog, Modbus RS485 RTU, and relay outputs are simple to operate efficiently and they are universally usable in any control panel.

Applications

- Process Industry
- Chemical Industry
- Food and Medicine Facilities
- Gas Distribution Stations
- Laboratories

Optional Modules

- **P-3R+:** 2 Alarms and 1 Fault (NO/NC adjustable) relay output card.

PC3 Series Gas Detectors Datasheet

Specifications	PC3-XY24	PC3-XY12
Sensing Type	Electrochemical	Catalytic
Output Signals	4-20mA Analog Modbus RS485 RTU*	
Sensor Warm-Up	60sec	
Response Time	<30**sec	<25sec
Accuracy	%±1	
Operating Temperature	-20°C ~ +50°C	
Humidity	5 ~ 95%RH Non-Condensing	
Input Voltage	Min 10VDC - Max 32VDC - Nominal 24VDC	
Power Consumption	Max.2W	
Optional Relay Outputs	2 Alarms (Selectable), and 1 Fault (All relays are NO/NC adjustable)	
Cable Entry	1x 1/2"NPT	
Ingress Protection	IP65	
Enclosure	Epoxy Painted Die-cast Aluminium	
Sensor Head	Nickel-plated Brass SH20	Nickel-plated Brass SH10
Dimensions	230x120x100mm	190x110x70mm
Weight	1100gr	810gr
Hazardous Class	Zone 2 - Category 3	
Standards (Sensor Head)	•EN 60079-0 •EN 60079-1 •EN 60079-18	

* To manage MODBUS Address optional Prosense Hand Terminal must be ordered.
** Sensor dependent.

XY	Gas	Product Code	Sensor Type	Measuring Range*
30	LPG	PC3-3012	Catalytic	0-100%LEL
31	Methane	PC3-3112	Catalytic	0-100%LEL
33	n-Butane	PC3-3312	Catalytic	0-100%LEL
34	Propane	PC3-3412	Catalytic	0-100%LEL
36	Hydrogen	PC3-3612	Catalytic	0-100%LEL
37	Pentane	PC3-3712	Catalytic	0-100%LEL
44	Carbonmonoxide	PC3-4424	Electrochemical	0-300ppm
48	Ammonia	PC3-4824	Electrochemical	0-100ppm
48	Ammonia	PC3-4824/B	Electrochemical	0-1000ppm
62	Ethylene Oxide	PC3-6224	Electrochemical	0-20ppm
64	Hydrogen Sulfide	PC3-6424	Electrochemical	0-100ppm
65	Oxygen	PC3-6524	Electrochemical	0-25%VOL
66	Sulfur Dioxide	PC3-6624	Electrochemical	0-10ppm
67	Nitric Oxide	PC3-6724	Electrochemical	0-250ppm
68	Nitrogen Dioxide	PC3-6824	Electrochemical	0-30ppm
69	Chlorine	PC3-6924	Electrochemical	0-10ppm

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

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

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

Prosense SafeVader Series

Prosense SafeVader Series fixed gas detectors are designed to use in safe areas. It includes all common output functions.

SafeVader has special measurement functions especially Hydrogen and Refrigerant gas detection. Also lots of VOCs can be detected very quickly to provide safety in workplace.

Applications

- *Labratories*
- *Schools*
- *Hospitals*
- *Refrigerant market*
- *Hydrogen detection*

All In One

4-20mA Analog , RS485 MODBUS RTU and Relay outputs are provided onboard to operate properly without any optional module.

Small and Smart

SafeVader has uniqe design and have all necessary functions for gas detection.

Accurate Readings

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

Easy Maintenance

SafeVader Series detectors allow easy configuration with three buttons and user menu.

LCD Display

The LCD display is easily readable from any angle and user menu provides easy configuration.

Easy Calibration

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

Zero Suppression

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

Simple External Equipment Control

Onboard relay outputs enable 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.
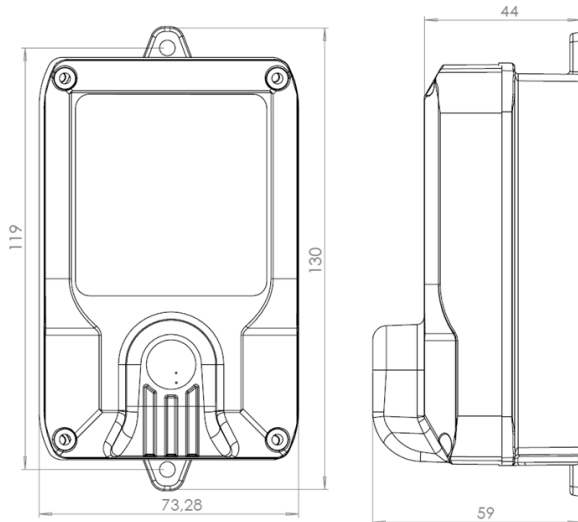
Easy Status Recognition

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

SafeVader Series Gas Detector

Specifications	SafeVader-IR	SafeVader-PEL	SafeVader-EEC	Safevader-PID
Sensing Element	Infrared	Pellistor	Electrochemical	PID
Output Signal	4-20mA Analog | RS485 Modbus RTU | Relay Outputs			
Sensor Warm-up Time	60sec			
Response Time (T90)	<30sec*	<25sec	<30sec**	<15sec
Accuracy	%±1			
Operating Temperature	-20℃ ~ +60℃ **			
Humidity	0~ 100%RH ** Non-Condensing			
Input	12 to 28VDC (24VDC nominal)			
Display	128x64 Graphic LCD 3 LED indicator for detector status			
Relay Outputs	2 Alarms (Programmable) and 1 Fault All relays are set to NO Relay rating 1.25A 30VDC			
Cable Entry	2xPG9			
IP Rating	IP54			
Enclosure	ABS Plastic			
Dimensions/Weight	130x73,30x59mm / 400gr			
Standards	EMC			

*When set to continuous measurement.
**Sensor dependent.

Please consult Prosense sales team for specific measurement ranges and target gases.

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

PROSENSE TEKNOLOJI SANAYI LIMITED SIRKETI
Cumhuriyet Mah. Mermer Sok.No:16 Kartal 34876
ISTANBUL/TURKEY
T: +90 216 306 77 88   F: +90 216 473 81 29
info@prosense.com.tr - www.prosense.com.tr

2

SOMASeries Gas Detector

Trustworthy Certification

PROSENSE SOMA Series fixed gas detectors are certified with ATEX and IECEx.

Intrinsically Safe

SOMA Series is an intrinsically safe device that can be used for continuous measurement of toxic and explosive gases safely in hazardous areas.

Robust and Durable

It is ready to use under harsh environmental conditions with the IP65 protection class.

Accurate Readings

Infrared, Pellistor and Electrochemical 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

SOMA Series detectors allow sensor replacement without opening the enclosure with pre-calibrated sensor head thanks to the Procell technology.

LCD Display

The LCD display is easily readable from any angle. User menu provides easy configuration.

Automatic Calibration

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

Pellistor-Saver Mode

Detectors 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

SOMA Series detectors continuously check the analog output signal level to match the measurement level before promptly transferred to the panel. SOMA 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.

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

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

Prosense
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SOMASeries Gas Detector

Specifications	SOMA-IR	SOMA-PEL	SOMA-EEC
Sensing Element	Infrared	Pellistor	Electrochemical
Output Signal	4-20mA Analog |5-15 Hz Output | RS485 Modbus RTU		
Sensor Warm-up Time	60sec		
Response Time (T90)	<30sec*	<25sec	<30sec**
Accuracy	%±1		
Operating Temperature	-20℃~+60℃ **		
Humidity	0~100%RH ** Non-Condensing		
Input	12 VDC		
Display	128x64 Graphic OLED 3 LED indicator for detector status		
Device Parameters	Ui 14,4 VDC / Ii 2,37mA / Pi 9,84W		
Output Parameters	Vo 6,015 V / Io 0,2125 A / Co 886,6 uF / Lo 9.8 mH		
Optional Relay Outputs	2 Alarms (Programmable) and 1 Fault (Alarm relays are NO/NC adjustable and Fault Relay is set to NC)		
Cable Entry	2xM20		
IP Rating	IP65		
Enclosure	Reinforce Polymer		
Dimensions/Weight	192,75x85x56,37mm / 600gr		
ATEX Marking	**Ex ia I Ma**		
Hazardous Class	Zone 1 - Zone 2 - M1		
Certificates	•EPS 21 ATEX 1 094 X •IECEx EPS 21.0031X		
Standards	• IEC EN 60079-0 • IEC EN 60079-1 •IEC EN 60079-11		

*When set to continuous measurement.
**Sensor dependent.

XY	Gas	Product Code	Sensor Type	Measuring Range*
31	Methane	SOMA-IR – 3135	Pellistor	0-100%LEL
31	Methane	SOMA-PEL – 3133	Infrared	0-100%LEL
36	Hydrogen	SOMA-EEC – 3634	Pellistor	0-2000PPM
44	Carbon monoxide	SOMA-EEC – 4434	Electrochemical	0-300ppm
44	Carbon monoxide	SOMA-EEC – 4434/B	Electrochemical	0-500ppm
44	Carbon monoxide	SOMA-EEC – 4434/C	Electrochemical	0-1000ppm
44	Carbon monoxide	SOMA-EEC – 4435	Pellistor	0-100%LEL
64	Hydrogen Sulfide	SOMA-EEC – 6434	Electrochemical	0-100ppm
65	Oxygen	SOMA-EEC – 6534	Electrochemical	0-25%VOL
66	Sulphur Dioxide	SOMA-EEC – 6634	Electrochemical	0-10ppm
67	Nitric Oxide	SOMA-EEC – 6734	Electrochemical	0-250ppm
68	Nitrogen Dioxide	SOMA-EEC – 6834	Electrochemical	0-30ppm
71	Carbon Dioxide	SOMA-IR – 7133	Infrared	0-5000ppm
71	Carbon Dioxide	SOMA-IR – 7133/B	Infrared	0-5%VOL

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

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

Prosense
Sampling System

![Prosense logo](Prosense makes life safer)

Prosense Sampling System

There are many factors creating obstacles to monitoring gas level directly locating a detector in the required area such as temperature, humidity, dust, air flow and corrosive environ- ments. Prosense provides a sampling system to use in these cases to sample the gas from the area and condition it to perform continuous and accurate detection. The sampling system is a complete solution integrated with necessary detector for measurement. Prosense sampling solution is developed to ensure continuous measurement by sampling from environments where diffusion method cannot be used.

The European Standard EN 1539:2010 defines necessary safety rules and requires continous monitoring for dryers and ovens in which flam- mable substances are released. The nature of operation in these devices releases flammable and VOC gases/ vapours that needs ventilation. According to this standard plants equipped with a continuous monitoring system can operate up to 50%LEL gas concentration and reduce the ventilation rates.
Continuous monitoring system allows process to work stable and without interruption as necessary preventative actions can be performed at on time.

Reducing process shutdowns and maintenance costs will have a major impact on productivity. Also an operation running with a continuous monitoring system can reduce the ventilation rates and costs which provides less operational costs.

Detector
System has integrated Prosense PQ Series detector(s) to measure target gas/gases. Prosense manufactures a range of state of art detectors to monitor flammable and toxic gases as well as oxygen in different mesaure- ment ranges that can adaptable for application requirements.

Pump
The sampling system is an integrated structure with a pump that draws air from the environment.The pump is located behind the detector and continuously vacuum the air from the environment to be sampled.

Cooling
System includes a temperature control unit and activates cooling fan depending of the measures temperature on gas pipe.

Filtering
System has a special filter to eliminate any dust, water, oil form the air sampled.
Filter can be changed according to air and sampling conditions.

Clean Air/Calibration
System has two solenoid valves to manage air flow to provide clean air to detector in necessary periods. The timer can be set based on end user requirements. Also they can be used for calibration purposes to perform maintenance activities without making any changes on the sampling system

Prosense

2

S-DP X Panels Datasheet

Analog&Digital Communication

DPX supports both 4-20mA and Modbus communications and can be integrated to external control and monitoring systems.

Cloud Monitoring

Cloud based data acquisition provides real-time monitoring of system status using ethernet or wireless connection options.

Intelligent System

Smart system software automatically identify the detectors and allows the settings adjustment from controller's menu.

Digital Zones

Up to 8 digital zones creation and detectors agroupment available for suiting the site conditions.

Analogue Module

Any 4-20mA analogue detector can be integrated to MODBUS chain with optional analogue module.
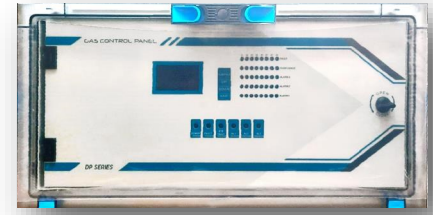
Optional Modules

- **S-NET:** Ethernet interface board
- **S-KEY:** Panel cover lock
- **PS120:** 24V 5A Uninterruptible Power Supply

Specifications	Details
Inputs	DP4: 4 x 4-20mA Analogue Channels DP8: 8 x 4-20mA Analogue Channels DP32: 32 x RS485 MODBUS RTU Detectors + 8 x 4-20mA Analogue Channels DP64: 64 x RS485 MODBUS RTU Detectors + 8 x 4-20mA Analogue Channels DP128: 128 x RS485 MODBUS RTU Detectors + 8 x 4-20mA Analogue Channels
Monitoring	Simultaneously monitoring measurement levels, alarm and fault status
Relay Outputs	Programmable FAULT, ALARM1, ALARM2, ALARM3, OVERRANGE (optional programmable relay) Adjustable NO/NC contacts
Data Logging	Storages Alarm, Fault and maintenance logs up to 500 events
Display	Graphic OLED 128x64
LED Indicators	FAULT, ALARM1, ALARM2, ALARM3, OVERRANGE status LEDs for each zone (40 LEDs) Power/On, FAULT, ALARM1, ALARM2, ALARM3, SYS-FAULT LEDs for overall monitoring
Buzzer	YES
Programming	User friendly software enables easy programming with 4 buttons on panel door
Remote Monitoring	Cloud data connection for remote monitoring
Power Supply	220 VAC / 110VAC
Main Power Fuse	2A
Power Consumption	27VDC/250mA-8W max. (without connected detectors)
Backup Battery	2x12V 7A/h (Optional)
Backup Battery Fuse	2A
Ingress Protection	IP66
Humidity	10-95%RH Non-Condensing
Operating Temp.	-20 ℃ to + 60 ℃
Cable Gland	PG11, IP66
Panel Material	PC (Polycarbonate), Halogen-free, Silicon-free, Durable 960' Hot Wire Experiment, Resistant to UV Rays
Dimensions/Weight	DP4 : 366x276x186mm / 4.25 KG DP8, DP32, DP64, DP128: 546x276x186mm / 6 KG
Mounting	Modular Structure

Prosense PEC Series Gas Control Panel is able to provide automatic gas con-centration reading and protection against gas hazards. Panel permanently transmits the gas concentration measurement from detectors and instantly handles the measurement of detectors. The control panel is able to generate sound and visual alarm, when measurements reach the programmed limit value. PEC Series Gas Control Panel built as a electric panel mounted system.

Prosense PEC Series Control Panel has three levels of alarm which are adjustable according to the measuring range and one fault alarm for the detection loop. Individual relays per function ensure remote controlled output. There are 5 relays on the panel. Three of them used as alarm relays and configured as ALARM-1, ALARM-2 and ALARM-3. There is one FAULT relay to monitor overall fault status. An additional relay programmed for optionally adjusted to alarm status.

PEC-600 models provide MODBUS connectivity and remote monitoring via computer based software or PLC/SCADA communicaiton. PEC-320 model provides MODBUS connecitviy to detectors for monitoring through MODBUS communication.

Specifications	Details
Inputs	PEC-600: 6 x 4-20mA Analogue Channels PEC-320: 32 x RS485 MODBUS RTU Detectors
Monitoring	Simultaneously monitoring measurement levels, alarm and fault status
Relay Outputs	Programmable FAULT, ALARM1, ALARM2, ALARM3, AUX (optional programmable relay) Both NO/NC contacts available
Data Logging	N/A
Display	LCD 16x2
LED Indicators	DETECTOR FAULT, ALARM and SYSTEM FAULT LEDs for overall monitoring
Buzzer	YES
Programming	User friendly software enables easy programming with 4 buttons on panel door
Remote Monitoring	Optional computer based remote monitoring for LPR-4 and LPR-6
Power Supply	24 VDC
Main Power Fuse	2A
Power Consumption	27VDC/250mA-4W max. (without connected detectors)
Ingress Protection	IP20
Humidity	10-95%RH Non-Condensing
Operating Temp.	-20 ̊to + 60 ̊C
Panel Material	PC (Polycarbonate), Halogen-free, Silicon-free, Durable 960' Hot Wire Experiment, Resistant to UV Rays
Dimensions/Weight	120x90x50mm / 250 Gr
Mounting	Modular Structure

PPS+ Series Gas Detection System Datasheet

Certified with EN 50545-1

PPS+ is the first system which acquired the certification of performance requirements for carparks EN 50545-1 from an accredited certification body.

Specially Designed for Carparks

Prosense PPS+ addressable gas detectors are designed and developed for continuously monitoring carbon monoxide for vehicles with gasoline and nitrogen dioxide for vehicles with diesel in closed car parks and tunnels.

Easy Communication

PPS+ Series gas detectors are managed by PPS Manager Control Panel via Modbus RS485 RTU serial connection.

Increasable Number of Zones

PPS Manager control panel has up to four zones and each zone capable to manage up to 32 detectors.

Different Gases in Same Zone

The detectors for different gases can be integrated into same zone and can be monitored separately. Totally, 128 detectors can be managed by PPS Manager.

Suitable Solution for Ventilation System

PPS Manager has three relay outputs for each zone in order to manage fan ventilation levels. Also, 1 Alarm and 1 Fault relay contacts are integrated into the panel to monitor overall status.

Visual Indicators

Four individual LEDs in each zone inform the operator about current status as an addition to the panel display.

Power Cut Protection

PPS Control Manager offers optional battery connections in case of power cut.

Management System Integration Output

PPS Manager provides Modbus RS 485 RTU output that can be integrated with SCADA, DCS or BMS systems

Automatic Recognition of Detectors

PPS monitoring system automatically detects the type of detector and adjusts the related measurement ranges and alarm levels.
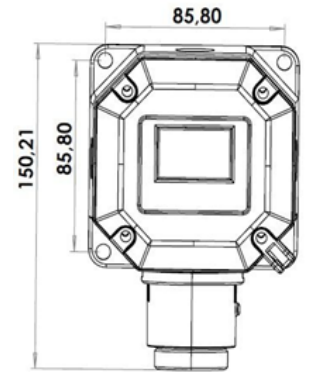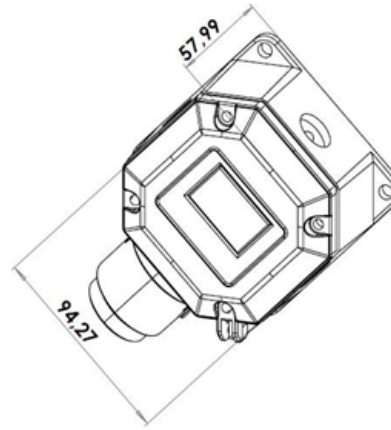
Monitoring Options

You can select an average or maximum value for every single zone and monitor that value.

Single Detector Monitoring

Monitoring every single detector in every single zone is possible with PPS Manager.

Optional Modules

- **PA-1207:** No Maintenance Required 12V 7A Battery
- **RS485:** Modbus RS485 RTU Interface Module
- **PPS-RS:** Zone-expand module to increase the number of zones

PPS+ Series Gas Detection System Datasheet

Specifications	PPS-CO	PPS-NO2
Target Gas	Carbon Monoxide	Nitrogen Dioxide
Sensor Type	Electrochemical	
Output Signal	Modbus RS485 RTU	
Sensor Warm-Up	60sec	
Response Time	<30sec	
Measuring Range	0-300ppm	0-30ppm
Accuracy	%±1	
Operating Temperature	-20°C ~ +50°C	
Humidity	5~95%RH	
Input Voltage	Min 10VDC - Max 18VDC - Nominal 12VDC	
Power Consumption	Max.2W	
Cable Entry	PG11	
Junction Box	ABS Plastic / IP54	
Dimensions	150x94,5x58mm	
Weight	250gr	
Standards	EN 50545-1:2015 EN 50270	

Specifications	PPS Manager
Power Source	220VAC +/-10% - 50 Hz/110VAC +/-10%
Power Consumption	27VDC/200mA-5.4Wmax. without connected detectors
Input (Internal)	4 x 32 Detectors via Modbus RS485 RTU Serial Input
Relay Outputs	Fan1, Fan2 and Fault for Each Zone Fault and Alarm for Overall Status
Contacts Rating	3A, 24VDC or 2A 120VAC
Display	Graphic LCD (2x8)
LED Indicators	Zone Status: Power, Fault, Alarm1, Fan1, Fan2 General Status: Power/ON, Fault
Buzzer	Yes
Backup Battery	2x12V 7A/h (Optional)
Operating Temp.	-20 to +50°C
Humidity	5-95%RH Non-Condensing
Housing	ABS Plastic / IP66
Dimensions	366x276x186mm
Weight	5.5kg
Main Power Fuse	2A
Backup Battery Fuse	2A

• *Max. cable length should not exceed 800m in each zone due to the Modbus limit.*

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