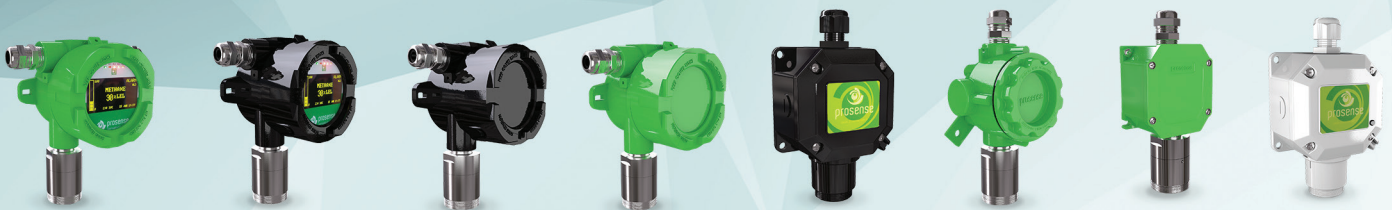# Prosense

makes life safer

Gas Detection Systems

www.prosense.com.tr

PROSENSE
Gas Detection Systems

↘ ATEX, IECEx, SIL2 certified Gas Detection Systems

↘ Maximum Security in Hazardous Areas

↘ High-Quality Products

↘ Easy Maintenance

↘ User-Friendly Software

↘ Competitive Prices

↘ Quick Lead Times

↘ Wide Range of Products

↘ Multi-Functional Detectors

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ABOUT US

Prosense is founded in 2006 and specialized in gas detection. Prosense manufactures ATEX/IECEx certified gas detection systems in Istanbul - Turkey.

Prosense has a complete range of high-performance gas detectors and gas control panels primarily designed for protection against toxic, flammable and asphyxiates gases. Currently, Prosense provides its solution to more than 30+ countries worldwide.

Prosense has been awarded two times as a fast-growing company in Turkey {2016, rank #31/2018, rank 61). Moreover, Prosense has been awarded by Deloitte as one of the Technology Fast 50 Turkey, 2019. The company, growing rapidly, has 30 employees.

Prosense Technology has been focused on qualified, technological, and creative products by understanding the current and future market requirements since its establishment. In this regard, Prosense has IS0-9001 Quality certification since 2008 and also QAN/QAR certifications for all manufacturing activities.

QUALITY

Prosense Technology's quality policy:
• Being a reliable company to meet the needs and expectations of our customers.
• Reducing the costs by following technological developments closely and increasing the profitability of the company, our partners and our customers.
• Increasing quality awareness of the employees in the company by continuously improving quality norms.
• Working with customers and suppliers in cooperation based on trust and mutual respect.
• Completing every initiated project on time by following and using the latest techniques within the desired qualities and budget limits.
• Serving with the quality management system which meets the requirements of TS EN ISO9001:2015, TS EN IS0/1 EC 80079-34 and TS EN ISO/IEC 17025 standards.
• Continuous improvement of the Quality Management System.

MANUFACTURING

Gas detectors, control panels and other relevant equipment are produced in Istanbul plant and distributed to other countries.

The plant is designed to produce numerous types of gas detectors, gas controls panels and other relevant equipment in the modular production line considering 5S strategy for high efficiency.

Thus, Prosense has high manufacturing capacity and offers quick lead times.

Prosense works based on just-in-time production principles to provide full lifetime which is mandatory for gas detectors. Additionally, Prosense follows additional steps to ensure product quality in the manufacturing process:

• During the manufacturing and test process, a specific software designed by Prosense's R&D department is used to control devices.

• Equipment and tools used in the manufacturing process are controlled, tested and certified regularly by the authorized institutions.

• Calibration gases are used in the manufacturing process is NIST traceable and certified by international institutions.

• Apart from internal audit, Prosense's manufacturing plant is audited regularly by the third part institutions.

• Equipment and components manufactured are according to quality requirements.

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Trustworthy Certification

PROSENSE "PQD" Series fixed gas detectors are certified with ATEX/IECEx and SIL2.

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.

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

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

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 if it operates perfectly or not 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.
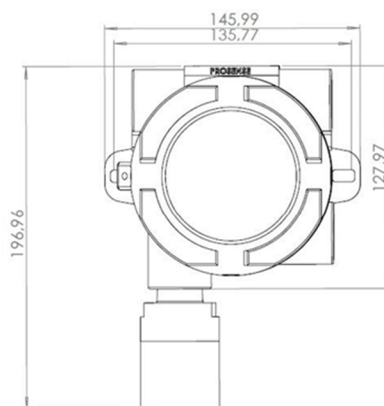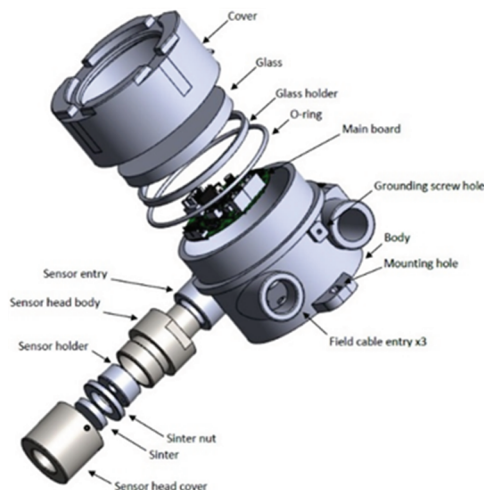
Applications

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

Specifications	PQD-XY36	PQD-XY35	PQD-XY34	PQD-XY33	PQD-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 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 Alarms (Programmable) and 1 Fault (All relays are NO/NC adjustable)				
Cable Entry	1/2"NPT - 3/4"NPT - 3xM20				
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				
ATEX Marking	II 2G Ex db IIC T6 Gb II 2G Ex mb db IIC T6 Gb I M2 Ex db I Mb				
Hazardous Class	Zone 1 - Zone 2 - M2				
Certificates	• ExVeritas 18 ATEX 0371X • IECEx EXV 18.0021X • FTZU 18 ATEX 0086 • IEP12 ATEX 6118X • SIL2				
Standards	• IEC EN 60079-0 • IEC EN 60079-1 • IEC EN 60079-18 • IEC EN 60079-29-1				

*When set to continuous measurement.
**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:** Ceiling mount collecting
• **P-ASU:** Prosense sampling unit
• **PQ-DISP:** Remote Display
• **PQ-PD05:** PQ Series Hand Terminal

Trustworthy Certification

PROSENSE "PQN" Series fixed gas detectors are certified with ATEX/IECEx and SIL2.

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.

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

PQN 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 the sensor in high gas concentration in order to properly secure the operational lifetime of Pellistor sensor.

## Auto Analog Signal Calibration and Monitoring

PQN Series detectors continuously check the analog output signal level to match the measurement level before promptly transferred to the panel. PQN Series adjusts the signal level in case of any deviation and generates 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 if it operates perfectly or not 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.

Maintenance via Software

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

Remote Display

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

Applications

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

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Specifications	PQN-XY36	PQN-XY35	PQN-XY34	PQN-XY33	PQN-XY31
Sensing Element	PID	Pellistor	Electrochemical	Infrared	Semi-Conductor
Output Signal	4-20mA Analog and Modbus RS485 RTU				
Sensor Warm-up Time	60sec				
Response Time (T90)	<30sec*	<25sec	<30sec**	<30sec	<15sec
Accuracy	%±2				
Operating Temperature	-40°C~+70°C **				
Humidity	0~100%RH **				
Input	Min 10VDC - Max 32VDC - Nominal 24VDC				
Event logging	Records alarm, fault and maintenance events up to 250 logs				
Power Consumption	Max. 4W				
Optional Relay Outputs	2 Alarms (Programmable) and 1 Fault (All relays are NO/NC adjustable)				
Cable Entry	3x 1/2"NPT Standard / 3x3/4"NPT / 3xM20				
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				
ATEX Marking	II 2G Ex db IIC T6 Gb II 2G Ex mb db IIC T6 Gb I M2 Ex db I Mb				
Hazardous Class	Zone 1 - Zone 2 - M2				
Certificates	•ExVeritas 18 ATEX 0371X •IECEx EXV 18.0021X •FTZU 18 ATEX 0086 •IEP12 ATEX 6118X •SIL2 (Pending)				
Standards	• IEC EN 60079-0 • IEC EN 60079-1 •IEC EN 60079-18 • IEC EN 60079-29-1				

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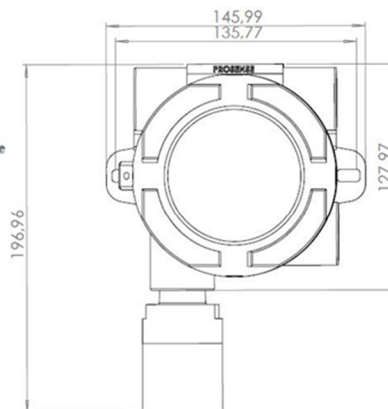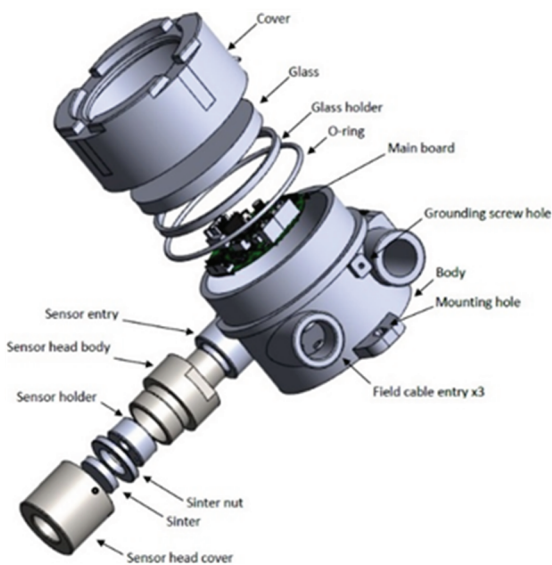
Optional Modules

- **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
- **PQN-SS:** Stainless Steel Junction box
- **P-GTA:** Ceiling mount collecting
- **P-ASU:** Prosense sampling unit
- **PQ-DISP:** Remote Display
- **PQ-PD05:** PQ Series Hand Terminal

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Detection of VOC Gases

PID technology is the latest generation of fixed photoionization detectors that contuniously detect a wide range of volatile organic compound (VOC).

Trustworthy Certification

PROSENSE "PQ" Series fixed gas detectors are certified with ATEX/IECEx and SIL2.

Ex-proof Safety

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

Functional Safety

Prosense promotes SIL approved products to reduce safety risks associated with increasingly complicated systems as malfunctioning equipment could pose a potential risk.

Robust and Durable

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

SAFELOG Data Logger

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

Ready to Operate

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

Easy Maintenance

PQ 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 supplied.

Auto Analogue Signal Calibration and Monitoring

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

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 if it operates perfectly or not and indicates a fault in case of any failure.

Optional OLED Display

The OLED screen can be easily read from any angle.

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 with OLED display.

Maintenance via Software

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

Remote Display

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

Applications

- Oil&Gas
- Onshore/Offshore
- Process Industry
- Chemical Industry
- Food and Medicine Facilities
- Metal Industry
- Gas Distribution Stations
- Laboratories

Specifications	PQD - 8136	PQN - 8136
Sensing Element	PID	
Measuring Range	ppm/ppb	
Output Signal	4-20mA Analog and Modbus RS485 RTU	
Sensor Warm-up Time	60sec	
Response Time (T90)	<30sec*	
Accuracy	%±1	
Operating Temperature	-40°C ~ +70°C	
Humidity	0~95%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 Alarms (Programmable) and 1 Fault (All relays are NO/NC adjustable)	
Cable Entry	1/2"NPT - 3/4"NPT - 3xM20	
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	
ATEX Marking	II 2G Ex db IIC T6 Gb II 2G Ex mb db IIC T6 Gb I M2 Ex db I Mb	
Hazardous Class	Zone 1 - Zone 2 - M2	
Certificates	•ExVeritas 18 ATEX 0371X •IECEx EXV 18.0021X •FTZU 18 ATEX 0086 •IEIP12 ATEX 6118X •SIL2	
Standards	• IEC EN 60079-0 • IEC EN 60079-1 •IEC EN 60079-18	

*When set to continuous measurement.
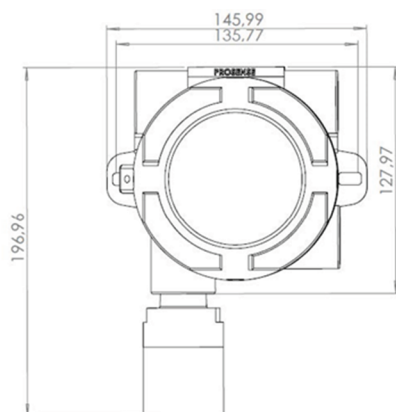
Optional Modules

• **PQ-3R+:** 2 Alarm, 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 with display
• **PQN-SS:** Stainless steel junction box without display
• **P-GTA:** Ceiling mount collecting
• **P-ASU:** Prosense sampling unit
• **PQ-DISP:** Remote display
• **PQ-PD05:** PQ Series Hand Terminal

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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.
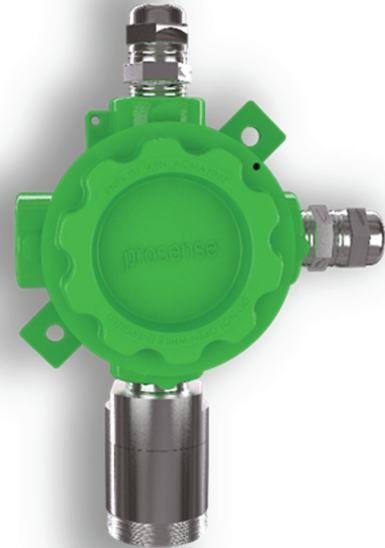
Zero Suppression

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 if it operates perfectly or not 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

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°C ~ +70°C			
Humidity	5 ~ 95%RH			
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	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			

*Sensor dependent.
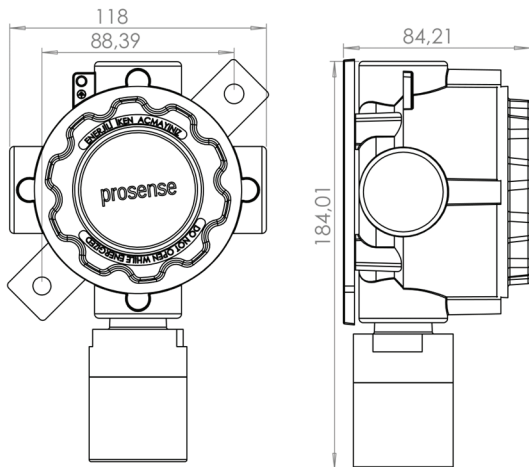
Optional Modules

• **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

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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
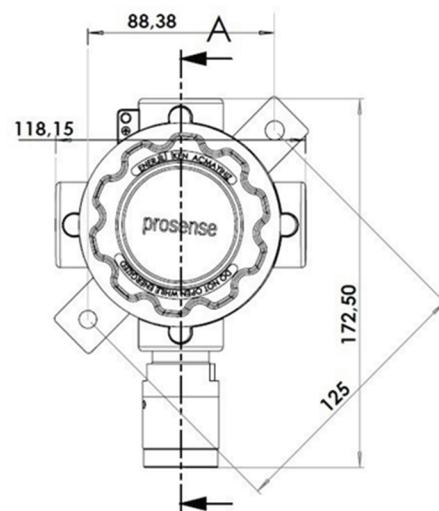
Fail-Safe Technology Alarming

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)

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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°C~+70°C
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

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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.
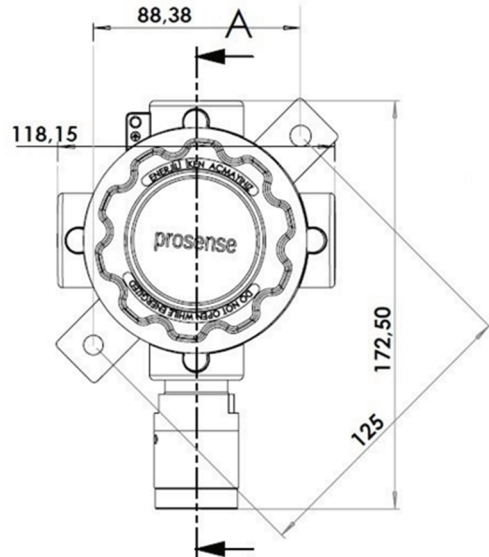
Quick Response Time

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.

88,38 A
118,15
172,50
125

Applications

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

Optional Modules

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

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

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.
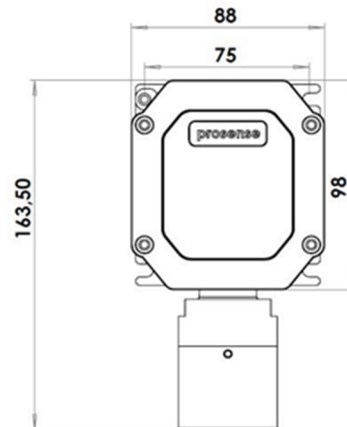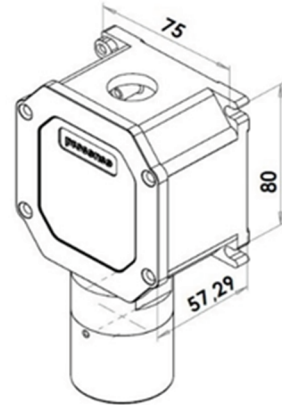
Universal Outputs

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.

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	

*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.

Cost-Effective Solutions

"BTN" Series offers cost-effective solutions for light industries.

Affordable Solution for Freon

This series is a price-performance product for freon gas.

Light-Weight Housing

BTN with ABS plastic and IP54 protected housing is designed for indoor applications.

Relay Contacts

On board provided relay contacts allow to manage other equipment such as siren, flasher. Also, it can be linked to firefighting panels.

Sensitive Sensors

High quality Catalytic, Electrochemical and Semi-Conductor sensors employed BTN Series detectors show excellent results in LEL, ppm and VOL ranges.

Optional Universal Communication Protocols

Thanks to Optional Modbus RS485 RTU Module, BTN can be managed as addressable detector.
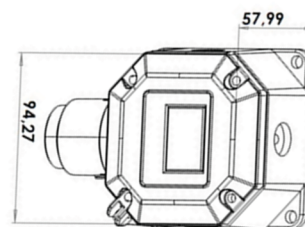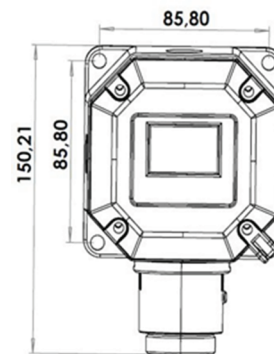
Fail-Safe Technology Alarming

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

Applications

- *Kitchens*
- *Safe-area applications*
- *Laboratories*
- *Food and Medicine Facilities*

Optional Modules

- **BTN-RS:** Modbus RS485 RTU interface module

Specifications	BTN-XY44	BTN-XY42	BTN-XY41
Sensing Element	Electrochemical	Catalytic	Semi-Conductor
Output Signal	2 Alarms and 1 Fault		
Sensor Warm-up Time	60sec		
Response Time (T90)	<30*sec	<25sec	<15sec
Accuracy	%±2		
Operating Temperature	-20°C ~ +50°C		
Humidity	5 ~ 95%RH		
Input	Min 10VDC - Max 28VDC - Nominal 24VDC		
Power Consumption	Max. 3W		
Optional Outputs	Modbus RS485 RTU**		
Cable Entry	3 x PG11		
IP Rating	IP54		
Junction Box	ABS Plastic		
Sensor Head	ABS Plastic		
Dimensions/Weight	150x94,5x58mm / 250gr		

*Sensor dependent.
**When you choose work with this option, you can get only Alarm1 and Fault relay outputs.

XY	Gas	Product Code	Sensor Type	Measuring Range
30	LPG	BTN-3042	Catalytic	0-100%LEL
31	Methane	BTN-3142	Catalytic	0-100%LEL
33	n-Butane	BTN-3342	Catalytic	0-100%LEL
34	Propane	BTN-3442	Catalytic	0-100%LEL
36	Hydrogen	BTN-3642	Catalytic	0-100%LEL
37	Pentane	BTN-3742	Catalytic	0-100%LEL
44	Carbon monoxide	BTN-4444	Electrochemical	0-300ppm
64	Hydrogen Sulphide	BTN-6444	Electrochemical	0-100ppm
65	Oxygen	BTN-6544	Electrochemical	0-25%VOL
69	Chlorine	BTN-6944	Electrochemical	0-10ppm
72	Freon	BTN-7241	Semi-Conductor	0-2000ppm
72	Freon	BTN-7241/A*	Semi-Conductor	0-2000ppm

*BTN-7241/A comes with 10m cable for specific applications.
Prosense gas detectors are fully tested and calibrated before delivery. Gas detectors must always be routinely controlled and calibrated regarding EN 60079-29-2.

Certified with EN 50545-1

PPS+ is the first system which acquired the certification of EN 50545-1, the standard for carparks.

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.
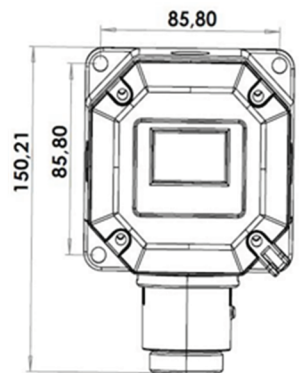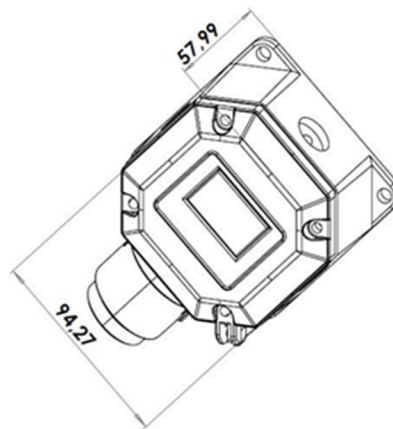
Single Detector Monitoring

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

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.

Specially Designed for Carparks

Prosense PPS addressable gas detectors are designed and developed for continuously monitoring carbon monoxide for vehicles with gasoline, nitrogen dioxide for vehicles with diesel and LPG gases for vehicle with LPG in closed carparks 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 detectors and adjusts the related measurement ranges and alarm levels.

Monitoring Options

You can select an average or an 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.
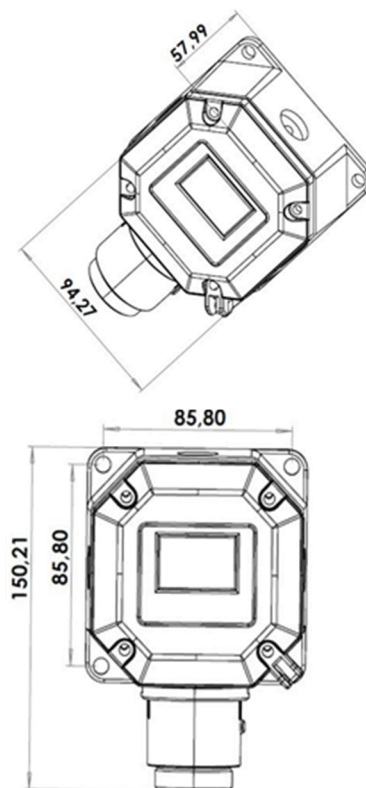
Optional Modules

- **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.

Specifications	PPS-CO	PPS-NO2	PPS-LPG
Target Gas	Carbon Monoxide	Nitrogen Dioxide	LPG
Sensor Type	Electrochemical		Catalytic
Output Signal	Modbus RS485 RTU		
Sensor Warm-Up	60sec		
Response Time	<30sec	<30sec	<15sec
Measuring Range	0-300ppm	0-30ppm	0-100%LEL
Accuracy	%±2		
Operating Temperature	-20°C ~ +50°C		
Humidity	5~95%RH		
Input Voltage	Min 10VDC - Max 18VDC - Nominal 12VDC		Min 10VDC - Max 28VDC Nominal 24VDC
Power Consumption	Max.2W		
Cable Entry	PG11		
Junction Box	ABS Plastic / IP54		
Dimensions Weight	150x94,5x58mm 250gr		
Standards	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 3A 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	Polycarbonate / IP66
Dimensions Weight	366x276x186mm 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.

PPS RCO&RNO₂ Series
Gas Detectors

Specially Designed for Carparks

Prosense PPS RCO & RNO₂ 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.

Cost-Effective Solutions

"PPS RCO & RNO₂" Series offers cost-effective solutions for carparks.

Light Housing

PPS RCO & RNO₂ with ABS plastic and IP54 protected housing is designed for indoor applications.

Relay Contacts

On board provided relay contacts allow to manage other equipment such as siren, flasher. Also, it can be linked to firefighting panels.

Sensitive Sensors

High quality Electrochemical sensor in PPS RCO & RNO₂ Series detectors shows excellent results in ppm.

Suitable Solution for Ventilation System

PPS RCO and RNO₂ has 2 relay outputs in order to manage fan ventilation levels. Also, 1 Alarm and 1 Fault relay contacts are integrated into the panel to monitor overall status.
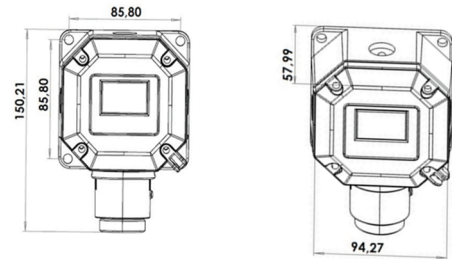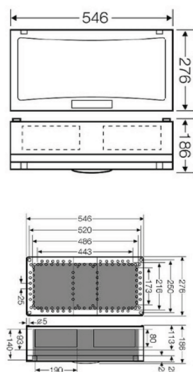
Specifications	PPS-RCO	PPS-RNO2
Target Gas	Carbon Monoxide	Nitrogen Dioxide
Sensor Type	Electrochemical	
Output Signal	2 Alarms and 1 Fault	
Sensor Warm-Up	60sec	
Response Time	<30sec	
Measuring Range	0-300ppm	0-30ppm
Accuracy	%±2	
Operating Temperature	-20°C ~ +50°C	
Humidity	5~95%RH	
Input Voltage	Min 10VDC - Max 28VDC - Nominal 24VDC	
Power Consumption	Max.2W	
Cable Entry	PG11	
Junction Box	ABS Plastic / IP54	
Dimensions	150x94,5x58mm	
Weight	250gr	

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Specifications	S-DP4 Gas Control Panel	S-DP8 Gas Control Panel	S-DP32 Gas Control Panel
Input	4 x Analogue 4-20mA 1 Digital Input	8 x Analogue 4-20mA 1 Digital Input	1 Serial Input to communicate up to 32 detectors 1 Digital Input
Monitoring	Simultaneously monitoring measurements, alarm and fault status		
Relay Outputs	Programmable Fault, Alarm1, Alarm2, AUX contacts Adjustable NO/NC contacts Optional Alarm1, Alarm2 and fault relays for each detector		Programmable Fault, Alarm1, Alarm2, AUX contacts Adjustable NO/NC contacts Optional Alarm1, relay for each detector
Data Logging*	Storages Alarm, Fault and maintenance logs up to 24 event		
Display	Graphic LCD 128x64		
LED Indicators	6 LED indicators for Alarm1, Alarm2, Fault, AUX, Battery and Power LED indicators		
Buzzer	YES		
Programming	User friendly software enables easy programming with 4 buttons on panel door		
Software Monitoring	Up to 16 panels can be monitored via Prosense Gas Monitoring software remotely		—
Power Supply	220 VAC +/-10% - 110VAC +/-10%		
Main Power Fuse	2A		
Power Consumption	27VDC/250mA-4,5W max. without connected detectors		27VDC/250mA-8,4W 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	366x276x186mm / 4.25 KG	546x276x186mm / 5.75 KG	546x276x186mm / 6 KG
Mounting	Modular Structure		

*This features is unable for S-DP4 and S-DP8 when monitoring via software.

S-DP8/DP32 Dimensions

546 · 276 · 186

546 · 520 · 486 · 443 · 210 · 210 · 275 · ⌀5 · 190

S-DP4 Dimensions

366 · 276 · 186

366 · 340 · 306 · 263 · 210 · 175 · 250 · 275 · ⌀5 · 140 · 80 · 113 · 186 · 280
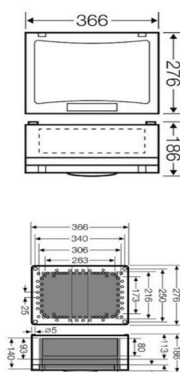
Optional Modules

- **S-4R:** 4 relay output card (Only for S-DP4 and Max. 3 qty)
- **S-8R:** 8 relay output card (Only for S-DP8(Max. 3 qty) and S-DP32 (Max. 4 qty)
- **S-RS:** Modbus RS485 RTU Interface Module (Only for S-DP4 and S-DP8)
- **S-KEY:** Panel cover lock
- **PS120:** 24V 5A Uninterruptible Power Supply
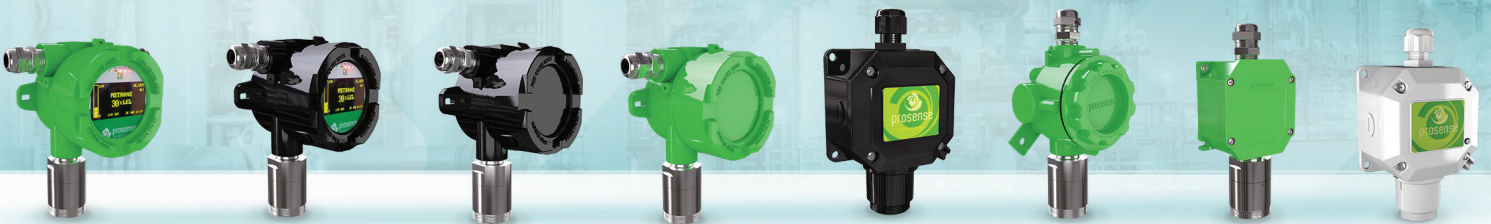- **PA-1207:** No Maintenance Required 12V 7A Battery

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