

## Gas Detector

# ProGas

Product code: PW-017-X



**Reliability**



**Innovation**



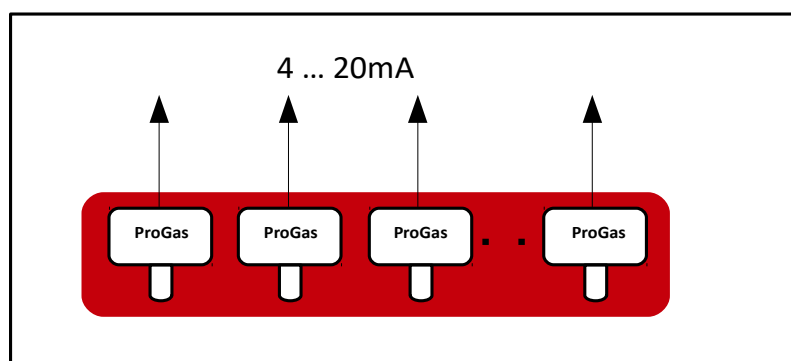
**A wide range of sensors**



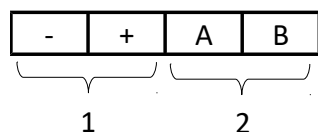
## Information about the product

Gas Detector **ProGas** is stationary device, designed to detect and monitor levels of toxic gases, explosive gases and oxygen in the ambient atmosphere. The gas detector measures the concentration of a given component, and then converts it to electric signal compatible with other devices of the gas detection system. In addition to the measurement, the detector analyses the value of the measured concentration and may provide information about Alarms. **ProGas** is a self-diagnostic device – and in the case of detection of malfunctions, it informs the user about it.

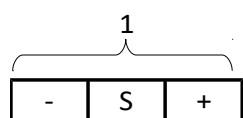
## Location and role of the Gas Detector in Gas Safety System



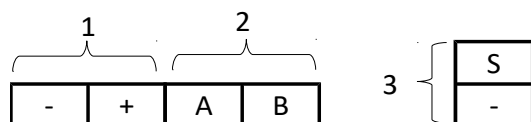
## Electrical interface



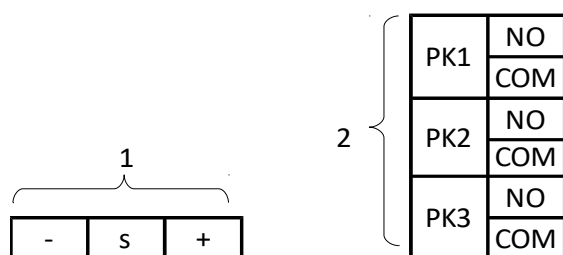
Connection diagram (RS-485)



Connection diagram (420)



Connection diagram (RS-485 + 420)



Connection diagram (420 + PK)

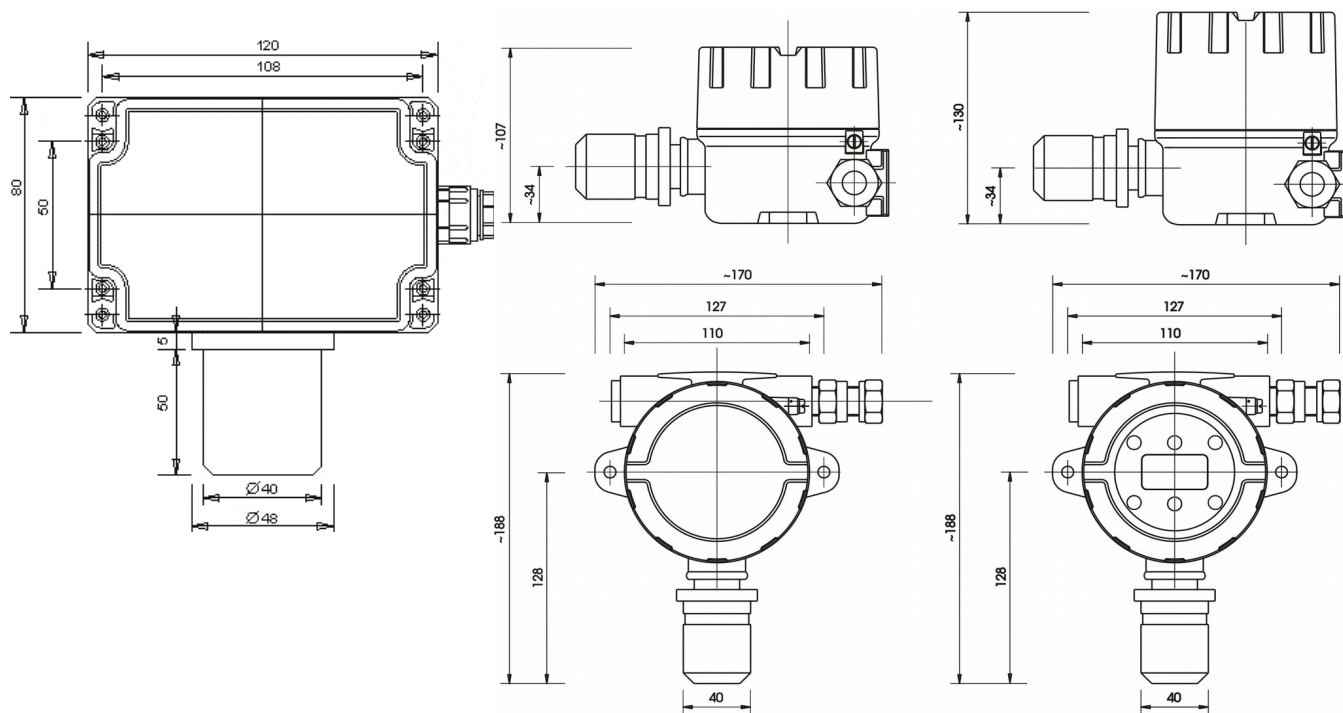
No.	Name	Pin	Description
1	Power Supply		Power supply port
		-	Negative
		+	Positive
2	SBUS		System communication port. Used for data exchange between devices in Sigma Gas system.
		A	Signal line A
		B	Signal line B

No.	Name	Pin	Description
1	Power Supply / 420		Power port
		-	Negative
		+	Positive
		S	Active current output

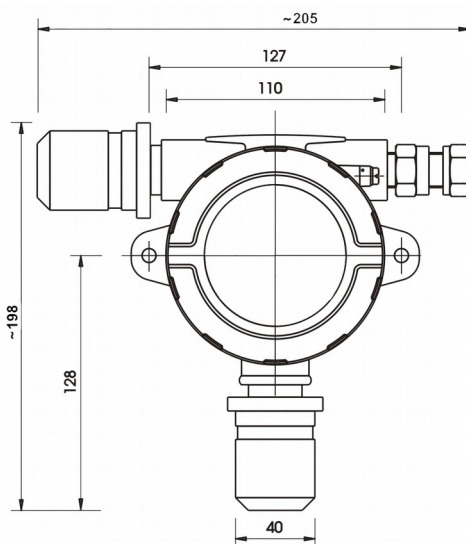
No.	Name	Pin	Description
1	Power Supply		Power supply port
		-	Negative (internally circuited with a negative of the port 420)
		+	Positive
2	SBUS		System communication port. Used for data exchange between devices in Sigma Gas system.
		A	Signal line A
		B	Signal line B
3	420		Output port of 420 signal
		S	Active current output
		-	Negative (internally circuited with a negative of the port 420)

No.	Name	Pin	Description
1	Power Supply / 420		Power port
		-	Negative
		+	Positive
		S	Active current output
2	PK1 – PK3	NO	Normally open contact of relay
		COM	Common terminal of relay

## Dimension



Gas Detector type PW-017 (option E = ABS, PC)	Without display	With display
	Gas Detector type PW-017 (option E = ALB, ALZ, C, SS)	



With acoustic signaller

Detailed information on marking the hardware configuration can be found in the User's Manual POD-010.

## Technical specification

Power supply	12 – 30 V $\overline{\text{---}}$		Integrated signalling equipment (optical)	Alphanumeric display 2x8 of the LCD type with LED indicators (option D = LCD, option not available for E = ABS, PC) Multicolour status display FLED (D = FLED, D = FLED.A)
<ul style="list-style-type: none"><li>Voltage <math>V_{cc}</math></li><li>Power</li></ul>	0,48 – 3,6 W			
Environment	-20 – +40°C (option T=0) -40 – +85°C (option T=T) 10 – 90% long term 0 – 99% short term 1013 hPa $\pm$ 10% Any of the above parameters can be limited by the parameters of the sensor		Integrated signalling equipment (acoustic)	70 dB at a distance of 1 m (option D = FLED.A)
<ul style="list-style-type: none"><li>Ambient temperatures</li></ul>			Protection class	III
<ul style="list-style-type: none"><li>Humidity</li></ul>			Cable glands	6 – 12 mm (E = ABS, PC) 7 – 13 mm (E = ALB, ALZ)
<ul style="list-style-type: none"><li>Pressure</li></ul>			<ul style="list-style-type: none"><li>Cable diameter range</li><li>External thread</li></ul>	8 – 13 mm (E = SS, C) M20
Measured substance	Compliant with the order or Calibration Certificate		Acceptable cables	0,5 – 2,5 mm <sup>2</sup> cable glands 2 x 1 mm <sup>2</sup> or 2 x 0.75 mm <sup>2</sup> should be used for double wires
Measurement range	As above		Enclosure material	<ul style="list-style-type: none"><li>ABS, PC</li><li>Aluminium spray epoxy / SS316L (option E = Alx)</li><li>Aluminium creodur epoxy/ SS316L (option E = C)</li><li>SS316L (option E = SS)</li></ul>
IP	Safety operating conditions of the device and uninterrupted gas access to the sensor	Safety operating conditions and possible disturbed gas access to the sensor	Weight	About 3,8 kg
	IP 63 IP 65 – using a Water-Splash Shield PW-071	IP 65	Mandatory periodic inspection	Every 12 months (Calibration Certificate validity) – the time can be shortened because of the difficult working conditions
Analogue output parameters	(option O = A / O = D, X = AL)		Mounting	<ul style="list-style-type: none"><li>4 holes for screw diameter 4.5 mm lub M4 (option E = ABS, PC)</li><li>2 holes for screw diameter 4 mm (option E = ALB, ALZ, C, SS)</li></ul>
4 – 20 mA	200 $\Omega$			
<ul style="list-style-type: none"><li>ROBC_MAX</li></ul>				
Digital output parameters	(option X = PK ) 3 Floating contacts 3 x NO / negative, 24 V DC, 0,2 A Not protected against overloading			
<ul style="list-style-type: none"><li>Number of relay</li></ul>				
Digital communication parameters	(option O = D)			
<ul style="list-style-type: none"><li>Electric standard</li><li>Communication protocol</li></ul>	<ul style="list-style-type: none"><li>RS-485</li><li>Modbus ASCII 19200 7E1</li></ul>			

## Product marking

Type	Description	Product code
Gas Detector	ProGas	PW-017-PG-X

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