Gas Detector

Teta EcoH

Product code: PW-123-H2

Reliability

Innovations

Cost efficiency

Teta Gas Dual Wire concept

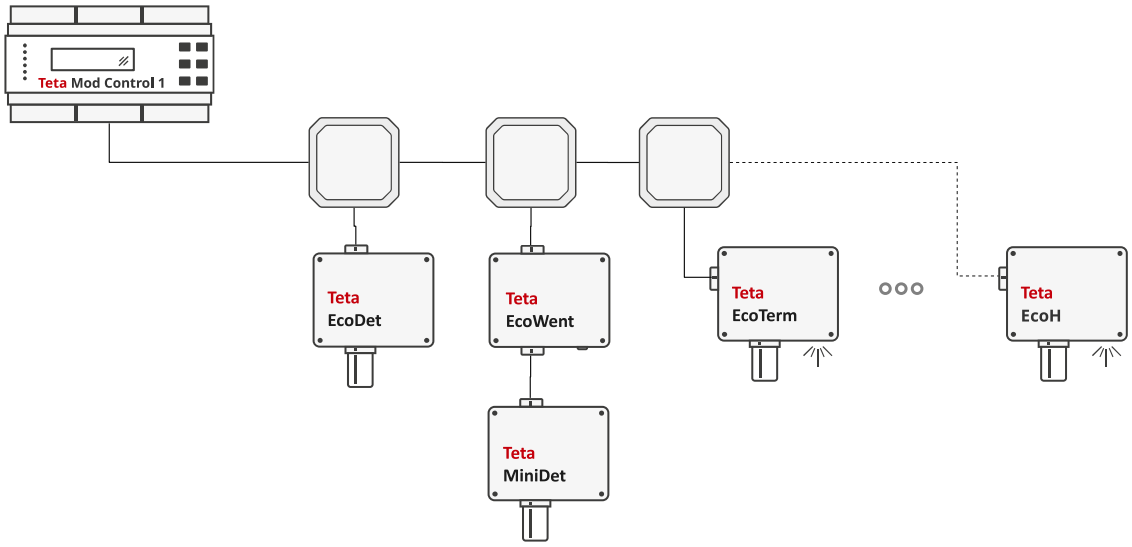
Information about the product

Teta EcoH gas detector is monitoring device designed to check hydrogen concentration in the surrounding atmosphere (e.g. battery rooms) and meant as components of the innovative system for gas detection – Teta Gas.

Key advantages of detector:

- power supply and data transmission via a single, two-wired cable,
- insensitive to polarization of the connection,
- simple and clear procedure to assign and verify addresses of individual detectors within a gas monitoring network,
- possibility to verify status of individual detectors by means of the supervising control unit,
- built-in catalytic sensor insensitive to changes of ambient conditions,
- optional calibration of the detector parameters by replacement of the Measuring Head MiniPel – very short time of calibration,
- Three configurable alarm thresholds that trigger when a specified concentration is exceeded,
- Option to adjust the averaging time for alarm thresholds 1 and 2, and the delay time for alarm threshold 3
- Indication of detector faults.

Location and role of the device in Gas Safety System

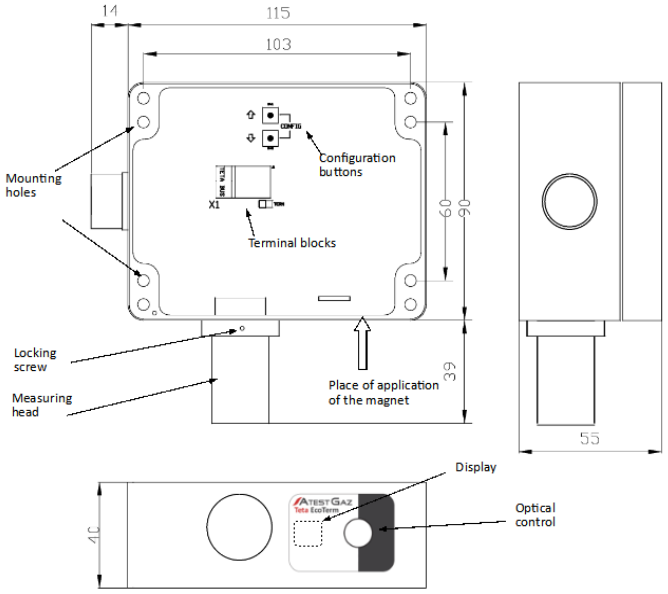


User interface

Teta EcoH detectors can indicate their operation status. It is accomplished by means of a signal LED visible in the bottom part of the detector enclosure. The LED can operate with two levels of light intensity to indicate correct operation of the device. The exceptional functionality of the detector consists in its ability to easily disclose its address within the gas detection network with no need to open its enclosure – it is enough to approach a permanent magnet to a specific point of the enclosure.

The detailed description of the detector operation is provided in the respective User Manual.

Electrical interface and dimension



Designation	Name	Pin	Description
X1	TETABUS		Teta Bus port
			Supply / signal line
			Supply / signal line

Technical specification

Power supply • Voltage V_{cc} • Power	12 – 50 V ⎓ 1.8 W	
Environment	In operation	Storage
• Ambient temperatures • Humidity • Pressure	-20 – 50 °C 10 – 90% long term 0 – 99% short term 1013 ± 10% hPa	0 – 50 °C 30 – 90% long term
Detected substance	Hydrogen (H_2)	
Measuring range	0 – 50% LEL	
Alarm thresholds range	10 % – 95 % of the measurement range	
Default alarm thresholds	A1: 10 % LEL A2: 15 % LEL A3: 20 % LEL	
Default averaging time A1 / A2	1 min	
Default delay time A3	0 min	
IP	IP 43	

Digital communication parameters • Communication port	Teta BUS
Integrated signalling equipment (visual)	LED indicators 7-segment type display LED
Protection class	III
Cable glands (cable diameter range)	Gland pressed into the installation pipe – diameter of the pipe 16 mm. Glands multiband – diameter of wire 3.5 – 12 mm
Acceptable cables	0.2 – 2.5 mm^2 – solid wire 0.2 – 2.5 mm^2 – multi-wire cable
Enclosure	ABS
Weight	0.3 kg
Mandatory periodic inspection	Every 12 months
Mounting	4 screw holes 4 mm, spacing as shown in the picture

Product marking

Product code	Device
PW-123-H2	Teta EcoH Gas Detector

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