



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx TUN 17.0027X issue No.: 0 Certificate history:

Status: **Current**

Date of Issue: **2017-12-11** Page 1 of 3

Applicant: **Hermann Sewerin GmbH**  
Robert-Bosch-Straße 3  
33334 Gütersloh  
Germany

Equipment: **Hand-held gas detector and meter EX-TEC PM5 type PM400/500/550/580**  
Optional accessory:

Type of Protection: **Flameproof enclosure "d", increased safety "e", Intrinsic safety "i",**

Marking: **Ex ia da I Ma**  
**Ex ia db eb IIC T4 Gb**  
**Ex ia db IIC T4 Gb**

Approved for issue on behalf of the IECEx  
Certification Body:


Andreas Meyer

Position:

Head of IECEx Certification Body

Signature:  
(for printed version)

Date:

  
2017-12-11

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**TÜV NORD CERT GmbH**  
Hanover Office  
Am TÜV 1, 30519 Hannover  
Germany





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Manufacturer: **Hermann Sewerin GmbH**  
Robert-Bosch-Straße 3  
33334 Gütersloh  
Germany

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2014-06</b> Edition: 7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-7 : 2015</b> Edition: 5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:  
[DE/TUN/ExTR16.0044/00](#)

Quality Assessment Report:  
[DE/TUN/QAR17.0004/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The battery operated "Hand-held gas detector and meter EX-TEC® PM5" is used for monitoring and measurement of flammable gases, e. g. methane CH<sub>4</sub>, measuring range ppm (Building), % LEL (warning) and Vol% (measuring).

Furthermore, the above-mentioned apparatus can optionally be equipped with sensors to detect e. g. CO<sub>2</sub>, O<sub>2</sub>, CO and / or H<sub>2</sub>S.

The infrared sensor used is selective for hydrocarbons such as methane and carbon dioxide. Thus, the infrared sensor is suitable for the LEL / MAK measurement (% LEL (Warning)) and Vol% (measuring), as well as for the analysis of C<sub>x</sub>H<sub>y</sub> / CO<sub>2</sub> gas mixtures. See also the operating instructions.

The built-in pump delivers the measuring gas to the sensors.

The sensors of the "Hand-held gas detector and meter EX-TEC® PM5" are designed in the type of protection "Flameproof enclosures" da resp. db.

The permissible ambient temperature range is -20 °C ... +40 °C.

See attachment for further details.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

Charging is only permitted outside of the explosion hazardous area.

Change of the batteries / battery pack is only permitted outside of the explosion hazardous area.

Only permissible batteries / permissible battery pack according to the manufacturer's operating instructions are allowed to be used. Further hints regarding the permissible batteries have to be observed.

The USB port is only permitted to be used outside of the explosion hazardous area.

For applications in mining areas: The apparatus was only submitted to tests corresponding to the low risk of mechanical danger. High risks of mechanical danger have to be avoided.

The device must not be stored or operated in explosive environments, if there is a chance of strong electrostatic charge occurring.



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Attachment to IECEx TUN 17.0027X Issue 0

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Ex- Marking	Type and production number					
	PM 400 No. 050 0x yyyyyy	PM 500 No. 050 1x yyyyyy	PM 550 No. 050 2x yyyyyy	PM 580 No. 050 3x yyyyyy	Battery holder PM05-B0300	Battery pack PM05-B0400
I M1 Ex ia da I Ma	X					X
II2G Ex ia db eb IIC T4 Gb	X	X	X	X	X	
II2G Ex ia db IIC T4 Gb	X	X	X	X		X

#### Electrical Data

Voltage supply ..... 3 primary or secondary cells, size „AA“, type LR6 or type HR6  
in the battery holder  
(Marking: II2G Ex ia db eb IIC T4 Gb)  
or  
via battery pack of the manufacturer  
(Marking: I M1 Ex ia da I Ma or II2G Ex ia db IIC T4 Gb)

Regarding the permissible cells and further safety hints, the manual of the manufacturer has to be observed.

Special conditions for safe use"

1. Charging is only permitted outside of the explosion hazardous area.
2. Change of the batteries / battery pack is only permitted outside of the explosion hazardous area.
3. Only permissible batteries / permissible battery pack according to the manufacturer's operating instructions are allowed to be used. Further hints regarding the permissible batteries have to be observed.
4. The USB port is only permitted to be used outside of the explosion hazardous area.
5. For applications in mining areas: The apparatus was only submitted to tests corresponding to the low risk of mechanical danger. High risks of mechanical danger have to be avoided.
6. The device must not be stored or operated in explosive environments, if there is a chance of strong electrostatic charge occurring.