

EU - Type Examination Certificate

- (1)
- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU
- (3) EU - Type Examination Certificate Number

EPS 20 ATEX 1 060 X

Revision 1


- (4) Equipment: IS-RSM2.1, IS-RSMG2.1 Intrinsically safe Remote Speaker Microphone
- (5) Manufacturer: i.safe MOBILE GmbH
- (6) Address: i_Park Tauberfranken 10
97922 Lauda-Koenigshofen
Germany
- (7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
- (8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 20TH0276.
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-11:2012

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.
- (11) This EU - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

IS-RSM2.1:

 II 2G Ex ib IIC T4 Gb
II 2D Ex ib IIIC T135°C Db

IS-RSMG2.1:

 II 2G Ex ib IIC T4 Gb



Certification department of explosion protection

Hamburg, 2021-03-29



(13)

Annex

(14) **EU - Type Examination Certificate EPS 20 ATEX 1 060 X**

Revision 1

(15) Description of equipment:

The intrinsically safe Remote Speaker Microphone is for the rugged use in explosion hazardous areas. The device has a PTT button and a volume control button. The IS-RSM is connected, outside hazardous areas, via the wired connection to the ISM interface of a mobile device (Plug and Play). This allows professional use of Push-to-talk. It is equipped with an amplified loudspeaker and a microphone.

The Remote Speaker Microphone is available in two variants:
IS-RSM2.1 and IS-RSMG2.1 with higher volume level

IS-RSM2.1

The IS-RSM2.1 is approved for use in explosion hazardous areas of zone 1 and 21.

Electrical data:

Supply:

The Remote Speaker Microphone IS-RSM2.1 will be supplied over the 13-pin ISM-Interface. No extra battery is needed.

Interfaces:

The device has a wired 13-pin connector. This must be connected outside hazardous areas to an ISM-interface developed in accordance with document 1029AD04 and may be operated within hazardous areas of zones 1 and 21.

The device has a 3.5 mm audio jack. The IS-EP1.1 or intrinsically safe accessories approved by i.safe MOBILE that comply with the following connection parameters may be connected to these within hazardous areas (the contacts are intrinsically safe for gas and dust):

Output voltage (spark):	$U_{o,spark}$	= 8.7 V
Output voltage (thermal):	$U_{o,thermal}$	= 5.288 V
Output current (spark):	$I_{o,spark}$	= 0.837 A
Output current (thermal):	$I_{o,thermal}$	= 0.424 A
Output power (thermal):	$P_{o,thermal}$	= 673 mW
Effective internal capacitance:	C_i	= negligible
Effective internal inductance:	L_i	= negligible
Permissible input voltage (spark):	$U_{i,spark}$	= 8.7 V
Permissible input voltage (thermal):	$U_{i,thermal}$	= 5.288 V
Permissible input power:	P_i	= 0 W

Only accessories without internal battery may be connected to the 3.5 mm audio jack.

Permissible L_o/C_o combinations:

L_o [mH]	0.100	0.050	0.020	0.010	0.005
C_o [μ F]	1.400	2.300	3.500	4.800	5.900



IS-RSMG2.1

The IS-RSMG2.1 is approved for use in explosion hazardous areas of zone 1.

Electrical data:

Supply:

The Remote Speaker Microphone IS-RSMG2.1 will be supplied over the 13-pin ISM-Interface. No extra battery is needed.

Interfaces:

The device has a wired 13-pin connector. This must be connected outside hazardous areas to an ISM-interface developed in accordance with document 1029AD04 and may be operated within hazardous areas of zone 1.

A connection to the 3.5 mm audio jack connector is not allowed inside hazardous area.

(16) Reference number: 20TH0276

(17) Special conditions for safe use:

The permitted ambient temperature range is -20 °C to +60 °C.

(18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Hamburg, 2021-03-29

H. Schaffer

