



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX BVS 15.0105** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2016-09-02\)](#)
[Issue 0 \(2015-12-01\)](#)
Date of Issue: 2021-05-19
Applicant: **Endress+Hauser GmbH+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany
Equipment: **Wireless HART-Adapter type SWA70-I*2****+***
Optional accessory:
Type of Protection: **Equipment protection by intrinsic safety "i", Equipment dust ignition protection by enclosure "t"**
Marking: Ex ia IIC T3/T4 Gb for SWA70-IE2****+*
Ex ia IIC T3/T4 Gb for SWA70-I12****+*
Ex tb [ia] IIIC T70°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Ralf Leiendecker

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

Date:

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 www.iecex.com or use of this QR Code.



Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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Manufacturer: **Endress+Hauser GmbH+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany

Additional
manufacturing
locations:

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 equipment 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

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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/BVS/ExTR15.0101/02](#)

Quality Assessment Report:

[DE/TUN/QAR06.0003/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and Type

See Annex

Description of product

See Annex

Listing of all components used referring to older standards

See Annex

Parameters

See Annex

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Assessment of Wireless HART-Adapter in accordance with the current standard versions
- Update of the documentation

Annex:

[BVS_15_0105_E+H_Annex_issue2.pdf](#)



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Annex
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Subject and Type

Instead of the *** in the complete denomination letters or numerals will be inserted which characterize the following modifications:

	SWA70-	**	2	*	*	*	*	+	*
Certificate									
IE	IECEX Ex ia IIC T4/T3 Gb								
I1	IECEX Ex tb [ja] IIIC T70°C Db IECEX Ex ia IIC T4/T3 Gb								
Output									
2	4-20 mA HART								
Housing									
A	F32, Polyester								
B	F33, Aluminum								
C	F39, 316L Stainless Steel								
Y	F32, Polyester with additional push button								
Power supply									
1	Battery BU191, Lithium Metal, build in								
5	Prepared for battery BU191								
Version (Not Ex relevant, for information purposes only)									
A	Prepared for installation at instrument								
B	Prepared for installation separated from instrument								
C	Prepared for installation as router								
Cable entry at field device									
1	M20 x 1.5								
2	G ½								
3	½ NPT								
4	¾ NPT								
8	without (entry closed with blind plug)								
Service (Not Ex relevant, for information purposes only)									

Description of product

The WirelessHART-Adapter type SWA70-I*2****+* is a battery powered interface module that connects HART and 4 up to 20 mA devices to a WirelessHart network. The wireless adapter transmits the information to a host application through and operates at the 2.4 GHz. As battery the battery type BU191 is used only.

The WirelessHART-Adapter SWA70 is available in metallic or plastic type enclosure. Plastic enclosure is only suitable for Gas applications IIC in T4/T3 classes in Zone 1. Metallic enclosures are suitable for Gas applications IIC in T4/T3 classes in Zone 1 and as well as Dust applications IIIC T70 °C in Zone 21.

Listing of all components used referring to older standards

None



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Parameters

1	Electrical data				
1.1	Power supply battery (battery pack BU191 with primary cells)				
	Nominal voltage		DC	7.2	V
1.2	Adapter active intrinsically safe (terminal 1-2)				
	Maximum output voltage	U_o	DC	28	V
	Maximum output current	I_o		99	mA
	Maximum output power	P_o		692	mW
	Max. external capacitance	C_o		70	nF
	Max. external inductance	L_o		3.45	mH
1.3	Adapter passive intrinsically safe (terminal 2-3 / 4-6 / 7-8)				
	Maximum input voltage	U_i	DC	30	V
	Maximum input current	I_i		100	mA
	Maximum input power	P_i		751	mW
	Effective internal capacitance	C_i		24	nF
	Effective internal inductance	L_i		426	μ H
1.4	Adapter active intrinsically safe (terminal LPI)				
	Maximum output voltage	U_o	DC	7.8	V
	Maximum output current	I_o		1	A
	Maximum output power	P_o		1.2	W
	Max. external capacitance	C_o		9.18	μ F
	Max. external inductance	L_o		21.51	μ H
2	HF-output antenna				
	Transmissions frequency			2.4	GHz
	Output power (nominal)			10	mW
	Output power (with 2 faults – Ex ia)			1.05	W
3	Ambient temperature range				
	For the temperature classification T4			-40 °C ≤ Ta ≤ +50 °C	
	For the temperature classification T3 and dust applications			-40 °C ≤ Ta ≤ +60 °C	
4	Max. surface temperature for dust applications				T70 °C
5	IP - Protection				IP6x