



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 20.0037** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-06-24

Applicant: **Endress+Hauser SE+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany

Equipment: **Point Level switch NIVOTESTER type FTC325-H***1**

Optional accessory:

Type of Protection: **Intrinsic Safety "i"**

Marking: [Ex ia Ga] IIC
[Ex ia Da] IIIC

Approved for issue on behalf of the IECEx
Certification Body:

Jörg Koch

Position:

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 SE+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

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/ExTR20.0034/00

Quality Assessment Report:

DE/TUN/QAR06.0003/08



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Point Level switch NIVOTESTER

Type **FTC325-H***1**

abcd

a, c = non-ex-relevant

b = A or B - power supply (see ratings)

d = 1, optional, non-ex-relevant

The point level switch NIVOTESTER type FTC325-H***1, which has to be installed outside the hazardous area, is used in connection with a sensor for the control of levels and for output of limit signals.

Ratings:

See Annex

SPECIFIC CONDITIONS OF USE: NO

Annex:

[BVS_20_0037_E+H_Annex.pdf](#)



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Annex
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Ratings:

1 Power supply circuit, terminals 1 (L1/L+) and 2 (N/L-)

Voltage	type FTC 325-H*A*1	AC	85 ... 253	V
	type FTC 325-H*B*1	AC	20 ... 30	V
		DC	20 ... 60	V
Maximum voltage	U _m	AC	253	V

2 Relay circuits, terminals 22, 23, 24 and 15 - 16

Switched voltage	AC	250	V	DC	40	V
Switched current		2	A		2	A
Switched power at $\cos \varphi \leq 0.7$		≤ 500	VA		≤ 80	W

3 Intrinsically safe output circuit, terminals 11 (-) and 12 (+)

Maximum output voltage	U _o	DC	13.9	V
Maximum output current	I _o		99	mA
Maximum output power	P _o		874	mW
Minimum internal resistance	R _i		391	Ω
Trapezoid output characteristic				
Maximum internal capacitance	C _i		138	nF
Maximum internal inductance	L _i		0.13	mH

Circuits level of protection Ex ia IIC

Maximum external capacitance	C _o	600	nF
Maximum external inductance	L _o	3.5	mH

If inductances and capacitances are concentrated the following values apply:

Maximum external capacitance	C _o	260	nF
at maximum external inductance	L _o	0.35	mH
or			
Maximum external capacitance	C _o	180	nF
at maximum external inductance	L _o	0.85	mH

Circuits level of protection Ex ib IIC

Maximum external capacitance	C _o	600	nF
Maximum external inductance	L _o	3.5	mH

Circuits level of protection Ex ia IIB or Ex ia IIIC

Maximum external capacity	C _o	4.56	μ F
Maximum external inductance	L _o	14.3	mH

If inductances and capacitances are concentrated the following values apply:

Maximum. external capacitance	C _o	2.06	μ F
at maximum. external inductance	L _o	0.85	mH
or			
Maximum external capacitance	C _o	1.06	μ F
at maximum. external inductance	L _o	4.85	mH

Circuits level of protection Ex ib IIB

Maximum external capacitance	C _o	4.56	μ F
Maximum external inductance	L _o	14.3	mH

4 Ambient temperature range

Stand alone mounting	T _a	-20 °C up to +60 °C
Row mounting		-20 °C up to +50 °C