

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: Nemko 16ATEX1237X Issue 4

[4] Product: Hybrid Dewpoint Transmitter

[5] Manufacturer: COSA Xentaur Corporation

[6] Address: 84F Horseblock Road
Yaphank, NY 11980
USA

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Nemko AS, notified body number 0470, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. 173622



[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012/A11:2013 and EN 60079-11:2012

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate

[12] The marking of the product shall include the following:

	II 1G	Ex ia IIC/IIB T6/T4 Ga For T6 : $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$ For T4 : $-20^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$
	II 1D	Ex ia IIIC T 115°C $-20^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$

Oslo, 2020-10-12



Geir Hørthe
Certification Manager

[13] Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No** **Nemko 16ATEX1237X** **Issue 4**

[15] **Description of Product**

This certificate cover the Hybrid Dewpoint Transmitter HDT, a microprocessor based 4-20mA loop powered (2 wire) hygrometer for measuring moisture content in gases or liquids in a wide range. The HDT's advanced design is housed in a small stainless steel enclosure behind the XTR series sensor probe, thus the instrument and sensor are a single integrated unit. A four pin "L"-shaped Hirschmann connector (type GSSR or GSSNR) secures the field wiring. The certificate covers also variants of HDT with different threaded fittings and pressure ratings, but the differences have negligible impact on safety concern with regards to requirements of the applicable standards. This update concerns investigation with regards to compliance of nA type of protection. The investigation causes minor changes for intrinsic safe concept and revised descriptive documents. HDT unit must be powered by separately Ex certified safety barriers with galvanic isolation and outputs with resistive linear characteristics. See also Specific condition of use. EN 60079-26 standard is no longer required for compliance of this investigation and therefore need not to be listed in certificate. The sensor probe XTR which is intended use with HDT device is not in compliance with dielectric strength between enclosure/frame and internal circuit. The HDT device in the end application with XTR sensor series relies on Specific condition of use with regards to the mentioned requirements of dielectric strength. Refer to XTR series Ex certification of XTR sensor probe (Presafe 15 ATEX 5864X).

Type Designations

HDT

(Variants with different threaded fittings, pressure ratings are also covered)

Electrical Data

For IIC Ui: 15.1Vdc, li: 160mA, Pi: 604mW, Ci: 540nF

For IIB Ui: 29.7Vdc, li: 100mA, Pi: 743mW, Ci: 540nF

Li: negligible

Linear resistive characteristics of power sources are required.

Degrees of protection (IP Code)

IP54

Ambient temperature:

Gas: For T6 : $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$

For T4 : $-20^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$

Dust: $115^{\circ}\text{C} -20^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$

Routine tests

None

[16] Report No. 173622

Descriptive Documents

Number	Title	Rev	Date
DPT.35.M.0041	Label	M	2015-06-10
DPT.35.M.1039 0	Shroud Label *)	B	2015-06-04
DPT.00.D.7042	Control Drawing for Entity Concept Approval Installation of Xentaur HDT *)	15	2015-06-10
DPT.D1.M.0225	Sensor Installation Diagram	D	2000-07-31
DPT.PL.M.9190 -10	HDT Assembly BOM	—	2014-07-08
DPT.S1.M.9190 -10	HDT Assembly drawing	—	2014-07-09
DPT.35.M.0008- 01	Top housing drawing	—	2014-07-08
SED.S1.M.9244	Sensor assembly with sintered metal filter	—	2001-09-10
DPT.09.E.0000 (page 1-2)	Schematic	H	2006-02-08
DPT.09.E.0000 (page 3)	Component Layouts	H	2005-05-31
DPT.09.E.0000 (page 4)	PCB Layouts	H	2005-03-10
DPT.S3.E.1543	PCB Assembly	B	07/12/2007
DPT.S1.M.1500	PCB BOM	J	2006-02-08
DPT.S1A.1100	HDT assembly BOM *)	C	2015-06-16
DPT.S2.E.0000	HDT twisted cable assembly *)	B	2015-06-02
DPT.S2.E.1038 0	HDT cable assembly *)	B	2015-06-02
Supplementary information: #) The dash sign indicates the first revision. Variants of HDT may exist with non-safety differences (different threaded fittings & pressure ratings) *) Documents concerned the changes			

Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2007-06-22	55685 *)	Original certificate and main test report issued.
1	2012-03-15	193532 *)	Supplement 1. Defined safety parameters for IIB
2	2014-09-02	D0001317- 00	- Upgrade to latest edition of applicable standards, EN 60079-0: 2012 & EN 60079-11: 2012 & EN 60079-26: 2007. - Removal of shroud. X-marking used - Introducing new variants with minor changes such as different threaded fittings, pressure ratings and alternative Hirschmann connector (type GSSR & GSSNR)
3	2015-06-18 Presafe project no.	D0001317- 01	Equipment is evaluated for requirements of nA type of protection which causes minor changes in the intrinsic safe concept. New gasket and cable type are used. Concerned descriptive documents and issues have been updated. All former test reports which are associated to Presafe project no. D0001317 must be used together. (ATEX Type



			Examination report & ExTR Reference No. NO/PRE/ExTR14.0014/01 EN 60079-26 standard is not required for this investigation. Previous test report of this standard may be deleted.
4	2020-10-12	173622	Minor description change in drawing DPT.S3.E.1543.
Supplementary information: *) Nemko projects			

[17] Specific Conditions of Use

Specific condition of use which is associated to X suffix in the marking.

- The small size plug is made of plastic material and has potential electrostatic charging hazards. Warning: potential electrostatic charging hazards. Clean connector only with a damp cloth.
- Equipment (when use with XTR series sensor) does not provide separation between enclosure and internal circuit (500V dielectric strength). Correct installation with regards to earthing is required per IEC60079-14

[18] Essential Health and Safety Requirements

EN 60079-26 standard is no longer required for compliance of this certification. Older EN60079-26 test report need not to be included.