

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or protective System intended for use in potentially
explosive atmospheres Directive 2014/34/EU**

3 EU - Type Examination Certificate Number: **DTI 21ATEX0154X**

4 Product: **Thermal Sensors**
Type: **OPE and OPX with LOS Thermowell**

5 Manufacturer: **SENMATIC A/S**

6 Address: **Industrivej 8
5471 Sønderød, Denmark**

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

8 Danish Technological Institute, Notified Body number 0396, 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. DTI 21ATEX0154, J969246

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

EN 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014

except in respect of those requirements listed at item 18 of the Schedule.

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 1/2 GD
Ex db IIC T4 Ga/Gb
Ex ta IIIC T135°C Da/Db

Danish Technological Institute
Certification & Inspection


Jakob Nittegaard
ATEX Manager

Date: 2021-06-10

13

Schedule

14

Certificate Number DTI 21ATEX0154X

15 **Description of Product**

The Thermal Sensors are designed as a flameproof Ex "d" housing/terminal box-on which the stainless-steel sensor is mounted.
The products are available in the following types:

Type OPE sensors can have a welded in sheath diameter of Ø 6 or Ø 9 mm. The Ø6 mm version must always be used with the type of LOS Thermowell to make sure that the flameproof properties are maintained.

Type OPX, which has a reduced tip size for faster response and is welded to the mounting flange.

All types can have a PTC or NTC sensing element, with or without an incorporated transmitter.

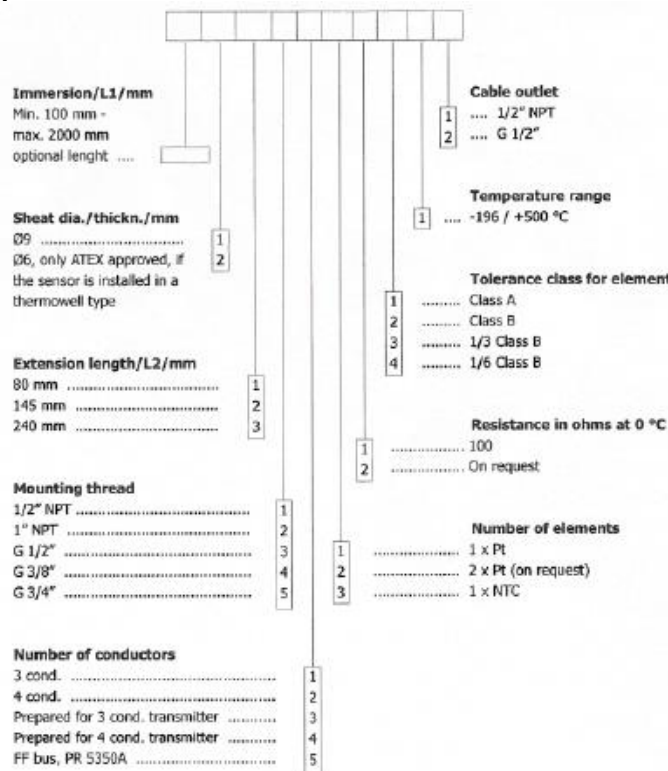
The terminal head has EPL Gb or Da and the probe tip has EPL Ga or Da

Specified ambient temperatures:

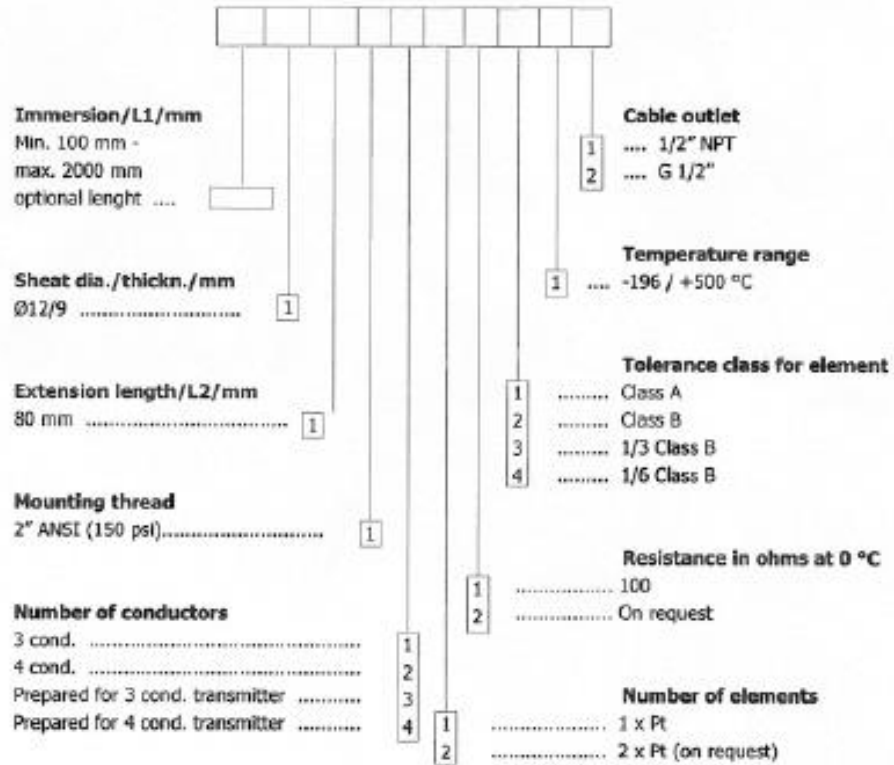
Ex db IIC T4 Ga/Gb : $T_{amb} : -40\text{ °C to }+95\text{ °C}$
Ex ta IIIC T135°C Da/Db $T_{amb} : -40\text{ °C to }+95\text{ °C}$

The sensors can be delivered in several type variants of feeler probe/gauge as specified below:

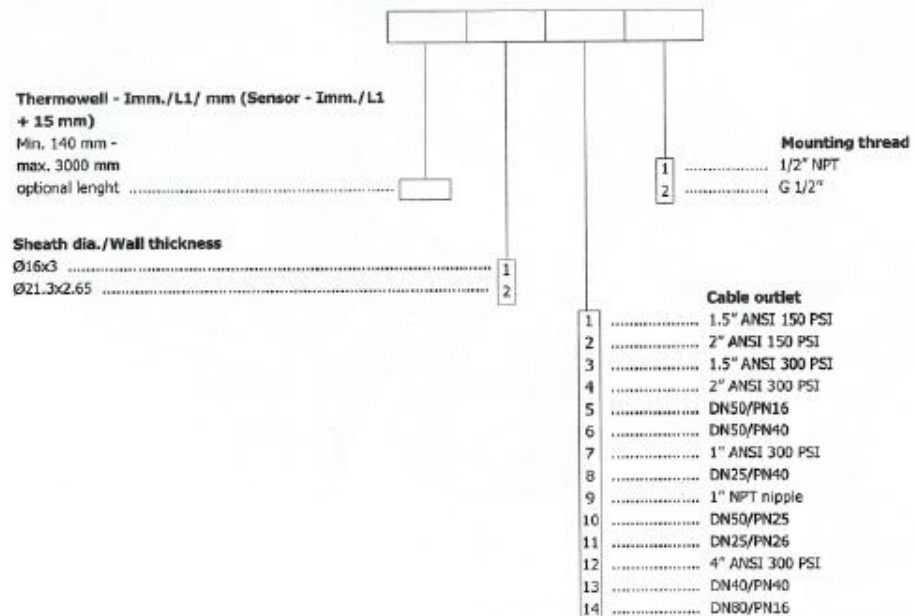
Type OPE:



Type OPX:



Type LOS:





16 Report Number
DTI 21ATEX0154

17 Specific Conditions of Use

1. Sensor types OPE with a diameter of Ø6 mm may only be used when mounted into Thermowell type LOS.
2. Only ATEX certified cable glands in type of protection Ex "d" must be used.
3. For temperatures below -20 °C and above +70 °C only cable suitable for the temperature must be used.
4. Any Dust layer must not exceed 50 mm.
5. The thermo sensor head must be protected from radiated and conducted heat from the process so that the specified ambient temperature are not exceeded.
6. The Thermo Probe Type OPE Ø6 must not be separated from the Thermowell if a flammable atmosphere is present.
7. Probes must be protected from any kind of mechanical Impact.

Routine test:

Routine test must be done in the production with 50 bar on the welded constructions in accordance with Clause 16.3 of EN 60079-1.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

None

19 Drawings and Documents

Title	Document no.	Rev	Date
OPE Lomme ½" NPT	304-0490, 2 pages	04	05.05.2021
OPE Lomme R 1/2"	304-0491, 2 pages	04	10.05.2021
OPE Lomme 3/8 BSP	304-0492, 2 pages	04	10-05-2021
OPE Lomme 1" NPT	304-0493, 2 pages	01	10-05-2021
Flange lomme for type OPX	304-0494, 2 pages	01	10-05-2021
Type-OPE Open	700-0093, 2 pages	10	26-05-2021
Type OPE med beskyttelsesrør	700-0094, 2 pages	11	26-05-2021
Type OPX	700-0095, 2 pages	05	26-05-2021
Indsats Ø6 sokkel	700-1102, 2 pages	04	06-05-2021
Type MMI Ø6 for OPE	700-1265, 2 pages	05	26-05-2021
LOS lomme Ø16	1401-117, 2 pages	01	26-05-2021
TYPE-LOS Ø21.3	1401-118, 2 pages	03	11-06-2020
K25-26841-00 Type-OPE	1066-810, 2 pages	02	26-05-2021
Marking plate OPE	304-2261-01, 2 pages	01	30-04-2020
Marking plate OPX	304-2261-02, 2 pages	01	19-04-2020
Marking plate LOS	304-2261-03, 2 pages	01	19-04-2020
User Guide	103-452	3	03-05-2021



**DANISH
TECHNOLOGICAL
INSTITUTE**

Certification & Inspection

Data Sheet Type-LOS		v4.0
Data Sheet Type-OPRE		v5.0
Data Sheet Type-OPX		v4.0
CESI Component certificate, empty enclosure	ATEX CESI 00ATEX0008U	
CESI Component certificate, empty enclosure	IECEX certificate IECEX CES 14.0005U	2014-02-21

Taastrup, 2021-06-10

Danish Technological Institute
Certification & Inspection

Jakob Nittegaard
ATEX Manager

