



Translation

(1) EU-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** TÜV 16 ATEX 173252 X **Issue:** 03

(4) for the product: Long stroke transmitter SA96DX-I/Ex and Short stroke transmitter SLCD-M1/25/Ex

(5) of the manufacturer: **HB Products A/S**

(6) Address: Bøgekildevej 21
8361 Hasselager
Denmark

Order number: 8003098842

Date of issue: See date of signature

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 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 the confidential ATEX Assessment Report No. 26 203 424418.

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

EN IEC 60079-0:2018/AC:2020-02

EN 60079-11:2012

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 for 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 equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 2 G Ex ib IIC T5 Gb or

II 2 G Ex ib IIC T6 Gb

The temperature class depends on the maximum ambient temperature

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(13) SCHEDULE

(14) EU-Type Examination Certificate No. TÜV 16 ATEX 173252 X

Issue 03

(15) Description of product:

The long stroke transmitter SA96DX-I/Ex and the short stroke transmitter SLCD-M1/25/Ex are designed for analogue linear measurement on industrial refrigeration compressors in connection with capacity control.

The sensor is available in respectively a Long (LS) and Short Stroke (SS).

The product is built into an aluminium enclosure and the PCB is embedded in casting compound.

The output signal is a 4 to 20mA signal and corresponds to 0 to 100% capacity (display). The measuring range can be changed via new calibration (built-in push button and 2 LED).

The only difference between a long stroke and a short stroke transmitter is the measuring range and the location of the sensor coil. The long stroke transmitter has the sensor coil arranged in a coil tube outside the electronic top part with a measuring length of 100 to 1000mm and the short stroke transmitter has the coil arranged inside the electronic part with a measuring length of 5 to 100mm. The product is suitable for the harsh conditions of a refrigeration system and can deal with vibrations and high pressures up to 100 bar.

Type code:

Following versions available:

- Long Stroke version (SA96DX-I/Ex) has a measuring stroke of max 50-2000 mm, can be calibrated to measure the minimum stroke of 50-80 mm.
- Short Stroke version (SLCD-M1/25/Ex) has a measuring stroke of max 0-25 mm, can be calibrated to measure the minimum stroke of 0-5 mm

Electrical data:

Supply and Signal circuit
(Solenoid valve connector
1=SUPPLY +
2=COMMON -
3=OUT 4...20mA)

In type of protection intrinsic safety Ex ib IIC
Only for connection to a certified intrinsic safe circuit.
Maximum values:

$$U_i = 28 \text{ V}$$

$$I_i = 116 \text{ mA}$$

$$P_i = 585 \text{ mW}$$

The effective internal capacitances $C_i = 22 \text{ nF}$

The effective internal inductances $L_i = 1 \text{ mH}$

Thermal data:

Permissible ambient temperature range depending on the temperature class:

T5	T6
$-20^{\circ}\text{C} < T_a < +80^{\circ}\text{C}$	$-20^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$

(16) Drawings and documents are listed in the ATEX Assessment Report No. 26 203 424418

Schedule to EU-Type Examination Certificate No. TÜV 16 ATEX 173252 X Issue 03

(17) Specific Conditions for Use:

1. The device is not marked with the temperature range on the type label, hence a specific condition for safe use has to be stated.
2. The device has to be used with a standardised solenoid valve connector.

(18) Essential Health and Safety Requirements:

No additional ones.

- End of EU-Type Examination Certificate -