

Certificate

1 **EC-Type Examination Certificate**

2 Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 94/9/EC

3 EC-Type Examination Certificate Number: **KIWA 15ATEX0023 X** Issue: **1**

4 Equipment: **BETA Pressure and Temperature Switches Model series C.-...-I..**

5 Manufacturer: **BETA B.V.**

6 Address: **Verrijn Stuartlaan 22, 2288 EL Rijswijk
The Netherlands**

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

8 Kiwa Nederland B.V., notified body number 0620 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential ATEX Assessment Report No. 150401768.

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

EN 60079-0 : 2012 EN 60079-11 : 2012 EN 60079-26 : 2007

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use, specified in the schedule to this certificate.

11 This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment. 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 equipment shall include the following:



II 1 G Ex ia IIC T4 ... T6 Ga
II 2 G Ex ib IIC T4 ... T6 Gb
II 1 D Ex ia IIIC T 85 °C Da
II 2 D Ex ib IIIC T 85 °C Db

Kiwa Nederland B.V.



Pieter van Breugel
Certification Officer

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13 SCHEDULE

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15.1 Description

BETA Pressure and Temperature Switches Model series C.-...-I-.. are devices that include one or two pressure level respectively temperature level activated switch contacts.

Pushbuttons for manual reset of the switches can optionally be fitted.

Ambient temperature range -60 °C to +80 °C.

The temperature class in relation to ambient temperature range and the optional presence of metal film load resistors is listed in the following table:

Temperature class	Presence of resistors	Maximum ambient temperature
T4	with resistors	+80 °C
T5	with resistors	+70 °C
T6	with resistors	+55 °C
	without resistors	+80 °C

The maximum surface temperature at the enclosure T85 °C is determined at an ambient temperature of 80 °C for a dust layer with a thickness of maximum 5 mm.

15.2 Electrical data

Contact inputs (terminals NO, NC and C):

in type of protection intrinsic safety Ex ia IIC, Ex ib IIC, Ex ia IIIC or Ex ib IIIC, depending on the type of protection and the electrical parameters of the connected certified associated intrinsically safe circuits.

The maximum values of voltage and current (per contact) are:

$U_i = 90 \text{ V}$, $I_i = 3,3 \text{ A}$. The effective internal capacitance C_i and the internal inductance L_i are negligibly small.

Alternatively the field wiring may be connected via pluggable connections.

15.3 Instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

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No. 150401768.

17 Specific conditions of use

- In an explosive atmosphere requiring the use of equipment of category 1 D, the BETA Temperature and Pressure Switches series C shall be installed such that a dust layer with a thickness of more than 50 mm on any surface is prevented.
- If the enclosure of the BETA Temperature and Pressure switches series C is made of aluminium, even in the event of rare incidents, ignition sources due to impact and friction sparks shall be prevented if the devices are installed in an explosive gas atmosphere requiring the use of equipment of category 1 G.
- Electrostatic discharge of the pushbuttons of versions provided with manual reset shall be prevented during operation, maintenance and cleaning.

13 **SCHEDULE**

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18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at section 9.

19 **Test documentation**

As listed in ATEX Assessment Report No. 150401768.