

## (1) EC-TYPE EXAMINATION CERTIFICATE

(2) Equipment or protective system intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 02ATEX2187**

(4) Equipment or protective system: **BETA Pressure and Temperature Switches Series Z.-**

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

(6) Address: **Verrijn Stuaartlaan 22-24, 2288 EL Rijswijk, The Netherlands**

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

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 report no. 2021817.

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

**EN 50014 : 1997**

**EN 50018 : 2000**

**EN 50019 : 2000**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe 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 or protective system according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:



**II 2 G EEx ed IIC T6**

Arnhem, 6 November 2002  
KEMA Quality B.V.



T. Pijker  
Certification Manager

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## SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 02ATEX2187

(15) **Description**

The BETA Pressure and Temperature Switches series Z.- comprises of a common micro-switch and terminal housing manufactured from aluminium alloy or stainless steel. It is fitted with a range of pressure sensing elements and associated linkages or a direct mount or remote capillary type temperature sensing element. Optional a resistor can be connected across any two contacts of each switch. The EEx e housing consists of a rectangular base and cover. The base unit has an integrally cast sensing element mounting boss and cable entry point. The housing may be drilled to accept either of two sizes of venting valve, selection being dependent on the type of sensing element fitted to the enclosure. The venting valve is spring loaded and designed to limit the possible pressure increase within the switch to 2 psi within stated operational limits. The internal equipment consists of a certified EEx d IIC micro-switch and EEx e II terminal block.

Ambient temperature range : -20 °C... +40 °C.

**Electrical data**

Voltage ..... max. 250 V  
Current ..... max. 7 A ac / 0,25 A dc

**Installation instruction**

The cable entry devices shall be in type of explosion protection increased safety "e", suitable for the conditions of use and correctly installed.

**Routine tests**

The electrical strength test according to EN 50019 cl. 7 shall be carried out between the supply terminals and the ground terminal with a voltage of 1500 V, during 1 minute.

(16) **Report**

KEMA No. 2021817.

(17) **Special conditions for safe use**

None.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

1. EC-Type Examination Certificate PTB 99ATEX3117 U  
PTB 98ATEX1033 U

Certificate of Conformity BAS No Ex88B3352

dated

2. Drawing No. 30.09.68

11.06.2002

**AMENDMENT 1****to EC-Type Examination Certificate KEMA 02ATEX2187 X**Manufacturer: **BETA B.V.**Address: **Verrijn Stuartlaan 22-24, 2288 EL Rijswijk, The Netherlands****Description**

The ambient temperature range of the BETA Pressure and Temperature Switches Series Z.- is extended to -40 °C ... + 65 °C.

The sign "X" has been placed after the certificate number to indicate that the special temperature range apply for this equipment.

**Electrical data**

Voltage ..... max. 250 V  
Current ..... max. 5 A ac

All other data remain unchanged.

**Test documentation**

	<u>dated</u>
1. Description	29.03.2004 / 07.05.2004
2. Drawing 30.09.68, rev. A	19.04.2004

Arnhem, 7 May 2004  
KEMA Quality B.V.



T. Pijpker  
Certification Manager

[2073252]

## AMENDMENT 2

to EC-Type Examination Certificate KEMA 02ATEX2187 X

Manufacturer: **BETA B.V.**

Address: **Verrijn Stuartlaan 22-24, 2288 EL Rijswijk, The Netherlands**

### Description

In future, the Pressure and Temperature Switches Series Z.- may also be constructed in accordance with the test documentation listed below.

The changes concern the internal construction, providing a double switching element and connection block.

### Routine tests

The electrical strength test according to EN 50019 cl. 7 shall be carried out between the different circuits and between the supply terminals and the ground terminal with a voltage of 1500 V, during 1 minute.

All other data remain unchanged.

### Test documentation

dated

Drawing No. 30.09.80, rev. C

15.06.2006

Arnhem, 26 June 2006  
KEMA Quality B.V.



T. Pijpker  
Certification Manager