

(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 02ATEX2189 X**

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

(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:



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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 02ATEX2189 X

(15) **Description**

The BETA Pressure and Temperature Switches Series M-..... consists of a certified micro-switch assembly model M in which one or two micro-switches are located. Optional a resistor can be connected across any two contacts of each switch. The switch housing is mounted into the wall of an increased safety terminal box manufactured from stainless steel and provided with a certified terminal assembly or with flying leads only.

The micro-switches are mechanical linked to the process-sensing element via an intermediate enclosure body that contains a venting valve designed to limit the possible pressure increase within the switch to 2 psi within stated operational limits.

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

Electrical data

Voltage 250 V
Current max. 2 x 10 A

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

Routine tests according to Clause 16 of EN 50018 are not required since the type test has been made at a static pressure of four times the reference pressure.

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

(16) **Report**

KEMA No. 2021817.

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

The switch assembly with the flying leads must be fitted into the wall of a terminal box in type of explosion protection increased safety "e".

The switch assembly may be mounted into the wall of the terminal box by means of a threaded hole compatible with the external thread of the switch housing or by means of a clearance hole and lock nuts. This joint must not invalidate the degree of protection provided by the terminal box. The increased safety terminals must be suitable for use at 250 Vac 10 A.

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

Covered by the standards listed at (9).

(19) **Test documentation**

1. EC-Type Examination Certificate KEMA 02ATEX2188
PTB 99ATEX3117 U

Certificate of Conformity BAS No Ex89C3242

signed

2. Drawing No. 30.09.67

11.06.2002