



Certificate HU03/0088

The management system of

CZAKI THERMO-PRODUCT

ul. 19 Kwietnia 58, 05-090, Raszyn-Rybie, Poland

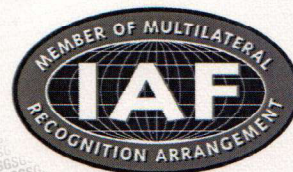
has been assessed and certified as meeting the requirements of

ISO 9001:2015

For the following activities

Design, manufacture and sale of measuring devices and process control instrumentation.

This certificate is valid from 24 January 2021 until 23 January 2024
and remains valid subject to satisfactory surveillance audits.
Recertification audit due a minimum of 60 days before the expiration date.
Issue 9. Certified since 24 January 2000



Authorised by



0005

SGS United Kingdom Ltd
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HC SGS 9001 2015 0818

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AC 038



KDB ATEX



Central Mining Institute
Certification Body
Product Certification Team
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This certificate and its
schedules may only be
reproduced in its entirety and
without change

[1] EC-TYPE EXAMINATION CERTIFICATE



[2] Equipment, protective systems and components intended for use in
potentially explosive atmospheres - Directive 94/9/EC

[3] EC – type examination certificate:

KDB 06ATEX025

[4] Equipment or protective system:

Temperature sensors of type TP-Exi

[5] Manufacturer:

Czaki Thermo-Product

[6] Address:

ul. 19 Kwietnia 58, 05-090 Raszyn-Rybie

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

[8] Central Mining Institute, Notified Body number 1453 in accordance with Article 9 of
Directive 94/9/EC of 23 March 1994, certifies that this equipment and 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 number
KDB No. 06.027 [T-5701]

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

EN 50014:1997+A1:1999+A2:1999, EN 50020:2002,

EN 50284:1999, EN 50281-1-1:1999

[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 and construction of the
specified equipment and protective system in accordance with Directive 94/9/EC.
Further requirements of the Directive may 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 1/2 G D EExia IIC T6* T75*

* Temperature classification of a sensor depends
on the measured temperature

Date of issue: 03.03.2006

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Date of English version: 28.04.2006

K I E R O W N I K
Zespołu Certyfikacji WYROBÓW
KD „BARBARA” Mikołów

doc. dr hab. inż. Krzysztof Cybulski



GŁÓWNY INSTYTUT GÓRNICCTWA
K I E R O W N I K
Jednostki Certyfikującej

dr inż. Dariusz Stefaniak



[13]

SCHEDULE

[14] **EC-Type Examination Certificate KDB 06ATEX025**

[15] **Description:**

Temperature sensors of type TP-Exi are intended for use in potentially explosive atmospheres caused by dust, vapours or gases - air mixtures. Platinum resistors or thermocouples can be used as sensing elements.

Each sensor contains a single measuring element or two measuring elements placed in a steel sheath. There is a terminal box for electrical connections at the other end. This terminal box is placed in aluminum head with IP65 protection grade, except types TP-Exi-701... and TP-Exi-702... It is possible to replace the terminal box with a intrinsically safe transmitter of type R/I, R/U or U/I, U/U ($4 \div 20\text{mA}$, $0 \div 20\text{mA}$ or $0 \div 5\text{V}$ etc.) which is explosion-proof II (1) G EExiaII* T* (* gas group and temperature class of the transmitter should be suitable for application). According to EN 50284:2004, sensors of type TP-Exi-611 \div TP-Exi-615, TP-Exi-681, TP-Exi-901 \div TP-Exi-903, TP-Exi-911, TP-Exi-912 can be used as an element of isolation between areas which differ in intrinsic safety requirements.

Technical data:

| | |
|---|--|
| measurement range | 200 \div 1250°C; depends on sensor type, according to catalog data sheet |
| 4-20mA transmitter | optional; for sensors with head only; suitable for actual explosive hazard class; certified according to directive 94/9/WE(94/9/CE); matching dimensions of the head of sensor |
| single TCD: terminals: 1-2 two TCDs: terminals: 1-2 and 3-4 | Uo=10V, Io=10mA, Po=100mW, Co=3 μ F (for sensor with single thermocouple), Co=0,9 μ F (for sensor with two thermocouples), Lo=100mH; two measuring elements placed in one sheath should be considered as galvanically not isolated |
| single 2-wire RTD: terminals: 1-2 two 2-wire RTDs: 1-2 and 3-4 single 3-wire RTD: terminals: 1-2-6 two 3-wire RTD: terminals: 1-2-6 and 3-4-5 single 4-wire RTD: terminals: 1-2-3-4 | Ui=10V, Ii=10mA, Pi=100mW, Ci=1000pF, Li~0; two measuring elements placed in one sheath should be considered as galvanically not isolated |
| ambient temperature range | -40 \div +75 °C |
| protection grade according to EN 60529:1992 | IP65 or IP20/00 |





[13]

SCHEDULE

[14] **EC-Type Examination Certificate KDB 06ATEX025**

[15] **Description: continued**

Temperature classification of a sensor depends on the measured temperature. After mounting, it should be checked if temperature of any part doesn't exceed acceptable limits for potentially explosive atmosphere, materials and devices.

There are following types of sensors:

TP - Exi - A - B - C - D - E - F

A Housing shape

sheathed thermocouple: 431, 432, 433, 434
sheathed thermoresistor: 461, 462, 463
with wrapper without mounting part: 601, 602, 603, 604, 605
with wrapper with sheath: 611, 612, 613, 614, 615, 681
with measuring insert: 701, 702
with additional conical wrapper: 901
with additional threaded wrapper: 902
with additional wrapper and flange: 903
with wrapper with flange: 911, 912

B Type of measuring element

| | |
|-----------------|-----|
| 1xPt100 2-wire | 1P2 |
| 1xPt100 3- wire | 1P3 |
| 1xPt100 4- wire | 1P4 |
| 2xPt100 2- wire | 2P2 |
| 2xPt100 3- wire | 2P3 |
| 1xFe-CuNi | 1J |
| 1xNiCr-NiAl | 1K |
| 1xNiCrSi-NiSi | 1N |
| 2xFe-CuNi | 2J |
| 2xNiCr-NiAl | 2K |
| 2xNiCrSi-NiSi | 2N |

C Length of sheath L

length L [mm] according to order





[13]

SCHEDULE

[14] **EC-Type Examination Certificate KDB 06ATEX025**

[15] **Description: continued**

D Mounting type

| | |
|---------------------------|---|
| thread size M20x1,5 | M20x1,5 |
| thread size M24x1,5 | M24x1,5 |
| thread size M27x2 | M27x2 |
| thread size G1/2" | G1/2 |
| thread size G3/4" | G3/4 |
| thread size G1" | G1 |
| other thread size | thread specification |
| drilled flange | thread specification and flange specification |
| flange according to draft | according to order |
| flange according to | specification according to |
| PN-ISO 7001.5 | PN-ISO 7001.5 |

E Potentially explosive atmosphere specification

| | |
|---|------|
| gas group and temperature class for category G | |
| II 1/2 G EExiaIIC T6* and | |
| dust group and temperature surface for category D | |
| II 1/2 D EExiaIICT75°C* | |
| ingress protection | IP65 |

F Other

| | |
|---|----------------------|
| accuracy class not offered in catalog | class A or class I |
| specification sheathed measurement insert | WPP |
| threaded handle | type specification |
| assembly clamp | type specification |
| ATEX certified temperature | 0 - no transmitter, |
| transmitter | 1 - with transmitter |



[13]

SCHEDULE

[16] **Test report:**

Report no. KDB 06.027

[17] **Special condition for safe use:**

– none

[18] **Essential health and safety requirements:**

Met by compliance with standards listed in section 9. of this Certificate.

[19] **Descriptive documents:**

| | |
|---|---------|
| Temperature sensor type TP-Exi-43X - drawing list | item 23 |
| Temperature sensor type TP-Exi-46X - drawing list | item 26 |
| Temperature sensor type TP-Exi-60X - drawing list | item 23 |
| Temperature sensor type TP-Exi-61X - drawing list | item 18 |
| Temperature sensor type TP-Exi-681 - drawing list | item 12 |
| Temperature sensor type TP-Exi-701 - drawing list | item 11 |
| Temperature sensor type TP-Exi-702 - drawing list | item 10 |
| Temperature sensor type TP-Exi-90X - drawing list | item 14 |
| Temperature sensor type TP-Exi-91X - drawing list | item 9 |
| Data sheets. | p.16 |
| User guide. Safety instruction. | p.14 |





J.S. Hamilton Poland Sp. z o.o.

(until 30.04.2018 JOAICW TEST Sp. z o.o.)

Certification Body

ul. Wyzwolenia 14
41-103 Siemianowice Śląskie



(1) **PRODUCTION QUALITY ASSURANCE NOTIFICATION**

(2) **Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

(3) Notification Number: **JSHP 19 ATEXQ 005**

(4) List of products: Equipment and Protective Systems or Components with type of protection:
– **intrinsic safety „i”**

Detailed list of Equipment and Protective Systems or Components covered by this notification is included in attachment to this Notification.

(5) Manufacturer: **CZAKI THERMO-PRODUCT**, 05-090 Raszyn-Rybie, ul. 19 kwietnia 58.

(6) Manufacturing location: **CZAKI THERMO-PRODUCT**, 05-090 Raszyn-Rybie, ul. 19 kwietnia 58.

(7) J.S. Hamilton Poland Sp. z o.o., Notified Body nr 2057 for Annex IV and VII, in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014 notifies to the applicant that the manufacturer has a production quality system which complies with Annex IV and/or VII of the Directive.

(8) This notification is based on audit report No. JSHP/RW/5/ZJ/19/LB.

This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV and/or VII.

(9) This notification is valid from **16.10.2019 to 15.10.2022**, and can be withdrawn if the manufacturer does not satisfy the production quality assurance surveillance.

(10) According to Article 16 (3) of the Directive 2014/34/EU the CE mark shall be followed by the identification Number **2057** identifying the notified body involved in the production control stage.

(11) This notification may only be reproduced in this entirety and without any change.



Romuald Matlachowski

Z-ca Kierownika Jednostki
Certyfikującej

Siemianowice Śl., 16th October 2019

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J.S. Hamilton Poland Sp. z o.o.

(until 30.04.2018 JOAICW TEST Sp. z o.o.)

Jednostka Certyfikująca

ul. Wyzwolenia 14
41-103 Siemianowice Śląskie



ATTACHMENT

(12)

(13) **PRODUCTION QUALITY ASSURANCE NOTIFICATION No. JSHP 19 ATEXQ 005**

(14) The scope of this quality assurance notification covers list of products implemented to the production process for undermentioned EC/EU-Types certificates:

| Product | EC/EU-Type certificate |
|----------------------------------|------------------------|
| – Temperature sensor TP-Exi type | – KDB 06 ATEX 025 |



Romuald Matlachowski

Z-ca Kierownika Jednostki
Certyfikującej