

Translation

(1) **EC-Type Examination Certificate**

TÜV NORD

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 94/9/EC**



- (3) **Certificate Number** TÜV 10 ATEX 556065
- (4) for the equipment: Digital Ex-controller-limiter-power actuator-combination
type WEXRBL25-230ZE000
- (5) of the manufacturer: Winkler GmbH
- (6) Address: Englerstraße 24
69126 Heidelberg
Germany
- Order number: 8000556065
- Date of issue: 2010-09-21

- (7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV NORD CERT GmbH, notified body No. 0044 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), 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 the confidential report No. 10 203 556065.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009 EN 60079-7:2003 EN 60079-11:2007
EN 60079-18:2004 EN 60079-31:2009

- (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 in accordance to the Directive 94/9/EC. 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 or protective system must include the following:

II 2 G Ex e ib [ib Gb] mb IIC T4 Gb
II 2 D Ex tb IIIC IP 6X T90 °C Db

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(13) **SCHEDULE**

(14) **EC-Type Examination Certificate No. TÜV 10 ATEX 556065**

(15) Description of equipment

In conjunction with PT100 resistance thermometers, the digital Ex-controller-limiter-power actuator-combination type WEXRBL25-230ZE000 serves for temperature control and temperature limitation of heating equipment used in explosion hazardous areas. The apparatus also includes a power section in terms of a full wave control.

The safe function as monitoring device for thermal processes is not object of this EC-Type Examination Certificate.

Permissible explosion hazardous area:

Zone	Group	Marking of the apparatus
1	IIC	II 2 G Ex e ib [ib Gb] mb IIC T4 Gb
21	IIIC with conductive dust	II 2 D Ex tb IIIC IP6X T90 °C Db

An operation in explosion hazardous areas caused by coincidental presence of explosive dust and gases (hybrid mixtures) is not allowed.

The permissible ambient temperature range is -20 °C ... +40 °C.

Electrical data

Supply voltage 230 V, -15%/+10%, 50 ... 60 Hz
(Connections L1, N, PE)

Internal fuses only for connection to fuses according to
(Connections F1 and F2) EC-Type Examination Certificate TÜV 07 ATEX 553973 U

Load output for connection to heating devices
(Connections 1 and 2)

External release connected with the supply voltage;
(Connections 6 and 7) only for connection to a pushbutton (250 V a. c.; 0.1 A)

Output temperature alarm 1 change-over contact; permissible values:
(Connections 3, 4, 5) 250V a. c., 5A, 100VA resp. 24V d. c., 5A, 100W

Schedule EC-Type Examination Certificate No. TÜV 10 ATEX 556065

Measuring circuits in type of protection Intrinsic Safety Ex ib IIC/IIB
 (Connections
 8, 9, 10 [closed loop control] and
 11, 12, 13 [limiter])

Maximum values per circuit:

$U_o = 6.3 \text{ V}$
 $I_o = 22 \text{ mA}$
 $P_o = 35 \text{ mW}$

Characteristic line: linear

Only for connection to Pt100 resistance thermometers

Ex ib	IIC	IIB
max. permissible external inductance	10 mH	10 mH
max. permissible external capacitance	1.5 μF	8.2 μF

The values for IIB and for IIC are also permissible for explosive dust atmospheres.

Hints for erection and operation:

1. At dangers by explosive dust atmospheres, the housing must not be opened.
2. The circuit „Load input“ has to be fused externally with max. 25 A.
3. The apparatus has to be erected in such a way, that only a low risk of mechanical danger exists for the cable entries.
4. All connection cables have to be installed fixed.
5. The Pt 100 sensors connected to the intrinsically safe circuits are simple electrical apparatus and have to be assessed according to section 5.7 of EN 60079-11.
6. The maximum values of the tables are also allowed to be used up to the permissible values by concentrated capacitances and inductances.
7. The intrinsically safe measuring circuits are safely galvanically separated from the non-intrinsically safe circuits up to a peak crest value of the voltage of 375 V.
 The intrinsically safe measuring circuits are safely separated from the earth potential.

These hints are content of the manufacturer`s manual.

(16) The test documents are listed in the test report No. 10 203 556065.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones