

# (1) EU-TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**
- (3) EU-Type Examination Certificate Number

**TÜV 22 ATEX 8769 X**

Issue: 00

- (4) **Equipment:** Memosens Wave Process Sensor  
Type CKI50
- (5) **Manufacturer:** Endress+Hauser Conducta GmbH+Co. KG
- (6) **Address:** Dieselstrasse 24  
70839 Gerlingen, Germany

- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26<sup>th</sup> February 2014, certifies this product which 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 atmosphere, given in Annex II to the Directive. The examination and test results are recorded in the confidential report 557 / Ex 8769.00 / 22.
- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN IEC 60079-0: 2018

EN 60079-1: 2014

EN 60079-11: 2012

EN 60079-26: 2015

EN 60079-28: 2015

EN 60079-31: 2013

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:



II 1/2 G Ex ia op is /db [ia Ga] IIC T6...T3 Ga/Gb

II 1/2 D Ex ia op is /tb [ia Da] IIC T85°C...T135°C Da/Db

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 24.05.2022

Dipl.-Ing. Christian Mehrhof



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Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114

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(13) Annex

(14) **EU Type Examination Certificate**  
**TÜV 22 ATEX 8769 X** Issue: 00

(15) Description of equipment

15.1 Equipment and type:

Memosens Wave Process Sensor  
Type CKI50

15.2 Description / Details of Change

The CKI50 is a compact VIS spectrometer for the process industry. It can be directly connected to the process and measures certain product properties (e.g., color, color deviations) in liquids.

The Memosens Wave process sensor CKI50 is designed such that various combinations of spectral sensors, light sources, probes and flange adapters can be used.

The process sensors are equipped with a probe connected to a flange adapter. The probe with the flange adapter can be integrated into any pipe or vessel with an appropriated inner diameter. The flange adapter is intended for the connection to the pipe or vessel, while the probe is in contact with the medium inside the pipe or vessel. Therefore, the probe is exposed to the temperature of the process medium, and not the ambient temperature as the sensor box.

The process sensor CKI50 for hazardous area possesses a separation barrier and can be used between two different zones. The probe is designed for the use in zone 0, while the sensor box is constructed for zone 1.

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### Technical Data

Rated voltage	24 V (including 10% tolerance: 21.6 V to 26.4 V)
Maximum current by fuse	0.63 A
Maximum permitted power Pmax for safety purposes	16.7 W
Ingress Protection code	IP68
Minimum cable length	2 m

Hazardous location	Ambient temperature	Process temperature
Gas	-20°C ≤ T <sub>a</sub> ≤ +50°C (T6)	-20°C ≤ T <sub>p</sub> ≤ +50°C (T6)
	-20°C ≤ T <sub>a</sub> ≤ +50°C (T4)	-20°C ≤ T <sub>p</sub> ≤ +65°C (T5)
	-20°C ≤ T <sub>a</sub> ≤ +50°C (T4)	-20°C ≤ T <sub>p</sub> ≤ +100°C (T4)
	-20°C ≤ T <sub>a</sub> ≤ +50°C (T3)	-20°C ≤ T <sub>p</sub> ≤ +140°C (T3)
Dust	-20°C ≤ T <sub>a</sub> ≤ +50°C (T85°C)	-20°C ≤ T <sub>p</sub> ≤ +55°C (T85°C)
	-20°C ≤ T <sub>a</sub> ≤ +50°C (T135°C)	-20°C ≤ T <sub>p</sub> ≤ +100°C (T135°C)

(16) Test-Report No. 557/Ex8769.00/22

(17) Special Conditions for safe use

1. The ambient temperature range is -20°C to +50°C for the enclosure, the maximum medium temperature depends on the desired temperature class for gas, resp. max surface temperature for dust applications (see technical data).
2. The device must be operated with a fuse, which has a breaking capability of at least 1500A.

(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2022-05-24

Dipl.-Ing. Christian Mehrhoff



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