translation original language: German

(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 04ATEX1134**

(4) Equipment or protective system: **Control System for Retractable Probes Type Easy Claen 400 X...**

(5) Manufacturer: **Mettler Toledo GmbH, Process Analytics**

(6) Address: **Im Hackacker 15, CH-8902 Urdorf, Switzerland**

(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. 2074343.

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

EN 50014 : 1997
EN 50281-1-1 : 1998
EN 50020 : 2002
EN 50284 : 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, 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(1) GD EEx ia IIC T4 T 70 °C

Arnhem, 19 May 2004
KEMA Quality B.V.

T. Pijpker
Certification Manager

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ACCREDITED BY THE DUTCH COUNCIL FOR ACCREDITATION

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 04ATEX1134**

(15) **Description**

The Control System for Retractable Probes Type Easy Clean 400 X ... is mainly intended for control of Retractable housings and is controlled by the Modular Transmitter Type M 700 X **** or similar measuring system or by a DCS. The Control System for Retractable Probes consists of a control cabinet with built-in control electronics and the associated pneumatic/hydraulic circuits, the process connection for operation of the retractable probe, the external media adapter for a maximum of three dosing pumps with containers for the buffer and cleaning solutions and the external Service Switch for service and measurement.

Ambient temperature range: +2 °C to +50 °C.

Degree of ingress protection: IP 65 according to EN 60529.

The maximum surface temperature of the housing T 70 °C is based on a maximum ambient temperature of +50 °C.

Electrical data

Auxiliary external power supply:
(KL19, KL21)

in type of explosion protection intrinsic safety EEx ia IIC, only for connection to intrinsically safe circuits, with the following maximum values:

U_i	=	30	V
P_i	=	1	W
C_i	=	negligibly small	
L_i	=	negligibly small	

or

Auxiliary power supply:
(KL19, KL20)

in type of explosion protection intrinsic safety EEx ia IIC, only for connection to the certified Protos Module Type EC 700 X

Emergency Shutdown circuit:
(KL15, KL16)

in type of explosion protection intrinsic safety EEx ia IIC, with the following maximum values:

U_o	=	30	V
I_o	=	146	mA
P_o	=	1	W
C_o	=	66	nF
L_o	=	1	mH

Interface RS485:
(KL17, KL18, KL19)

in type of explosion protection intrinsic safety EEx ia IIC, with the following maximum values:

U_i/U_o	=	5	V
I_i/I_o	=	257	mA
R_i	=	19,5	Ω
C_i	=	negligibly small	
L_i	=	negligibly small	
C_o	=	3,5	µF
L_o	=	1,2	mH

or

in type of explosion protection intrinsic safety EEx ia IIC, only for connection to the certified Protos Module Type EC 700 X

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 04ATEX1134**

DCS Outputs ML1, ML2, ML3: (KL31, KL32, KL33, KL34)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to intrinsically safe circuits, with the following maximum values per circuit: U_i = 30 V I_i = 100 mA P_i = 800 mW C_i = 12 nF L_i = negligibly small
DCS Inputs: PRG1, PRG2, PRG3 (KL36...KL39) A/M (KL40, KL41) M/S (KL42, KL43)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to intrinsically safe circuits, with the following maximum values per circuit: U_i = 30 V C_i = negligibly small L_i = negligibly small Peak voltage value in case of voltage addition: 60 V. No current addition.
Leakage circuit: (KL1, KL2)	in type of explosion protection intrinsic safety EEx ia IIC, with the following maximum values: U_o = 5 V I_o = 8 mA P_o = 10 mW C_o = 5 µF L_o = 2 mH Linear characteristic
Service Switch circuit: (KL8, KL9, KL10, KL11)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to the Service Switch, which is part of the Retractable Probe Control Unit Type Easy Clean 400 X ... Cable length < 100 m.
Pump circuits: (KL45, KL46, KL47, KL48 KL49, KL50, KL51)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to the media adapter / dosing pumps, which are part of the Retractable Probe Control Unit Type Easy Clean 400 X ... Cable length < 100 m.
Probe circuits: (KL12, KL13, KL14)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to process connections which are part of the Retractable Probe Control Unit Type Easy Clean 400 X ... Cable length < 100 m.

The external auxiliary power supply circuit, the auxiliary power supply circuit, the emergency shutdown circuit, the interface RS485, the service switch circuit, the pump circuits and the probe circuits are connected with each other and to the potential equalization PE.
The DCS outputs ML1, ML2 and ML3 are connected with each other.
The DCS inputs PRG1, PRG2 and PRG3 are connected with each other.
The DCS inputs PRG1, PRG2, PRG3 are functionally galvanically separated from the DCS input A/M and from the DCS input M/S, but are connected from an intrinsic safety point of view.
The DCS outputs and the DCS inputs and the leakage circuit are infallibly galvanically separated from each other and from all other circuits up to a peak voltage of 60 V.

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 04ATEX1134**

DCS Outputs ML1, ML2, ML3: (KL31, KL32, KL33, KL34)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to intrinsically safe circuits, with the following maximum values per circuit: U_i = 30 V I_i = 100 mA P_i = 800 mW C_i = 12 nF L_i = negligibly small
DCS Inputs: PRG1, PRG2, PRG3 (KL36...KL39) A/M (KL40, KL41) M/S (KL42, KL43)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to intrinsically safe circuits, with the following maximum values per circuit: U_i = 30 V C_i = negligibly small L_i = negligibly small Peak voltage value in case of voltage addition: 60 V. No current addition.
Leakage circuit: (KL1, KL2)	in type of explosion protection intrinsic safety EEx ia IIC, with the following maximum values: U_o = 5 V I_o = 8 mA P_o = 10 mW C_o = 5 µF L_o = 2 mH Linear characteristic
Service Switch circuit: (KL8, KL9, KL10, KL11)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to the Service Switch, which is part of the Retractable Probe Control Unit Type Easy Clean 400 X ... Cable length < 100 m.
Pump circuits: (KL45, KL46, KL47, KL48 KL49, KL50, KL51)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to the media adapter / dosing pumps, which are part of the Retractable Probe Control Unit Type Easy Clean 400 X ... Cable length < 100 m.
Probe circuits: (KL12, KL13, KL14)	in type of explosion protection intrinsic safety EEx ia IIC, only for connection to process connections which are part of the Retractable Probe Control Unit Type Easy Clean 400 X ... Cable length < 100 m.

The external auxiliary power supply circuit, the auxiliary power supply circuit, the emergency shutdown circuit, the interface RS485, the service switch circuit, the pump circuits and the probe circuits are connected with each other and to the potential equalization PE.
The DCS outputs ML1, ML2 and ML3 are connected with each other.
The DCS inputs PRG1, PRG2 and PRG3 are connected with each other.
The DCS inputs PRG1, PRG2, PRG3 are functionally galvanically separated from the DCS input A/M and from the DCS input M/S, but are connected from an intrinsic safety point of view.
The DCS outputs and the DCS inputs and the leakage circuit are infallibly galvanically separated from each other and from all other circuits up to a peak voltage of 60 V.

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 04ATEX1134**

Installation instructions

In areas endangered by the presence of combustible dust, the containers for the buffer and cleaning solutions are to be installed such, that a risk of explosion by electrostatic discharge is avoided. The containers are e.g. to be installed inside an earthed, electrostatically conductive vessel or cabinet or must be surrounded by earthed, electrostatically conductive materials.

Routine tests

Each transformer TR2, TR3, TR4 and TR5 must be tested according to EN 50020, clause 11.2, with a test voltage according to Table 9 during 10 seconds.

(16) **Report**

KEMA No. 2074343.

(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 Certificates KEMA 04ATEX1036

		dated
2.	Description No. 207.001-022MT (3 pages)	03.05.2004
3.	Drawing Nr. 207.011-230	03.05.2004