(1) # EU - Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – **Directive 2014/34/EU**

(3) EU - Type Examination Certificate Number

EPS 17 ATEX 1 130 X **Revision 1**

(4) Equipment:

MACX MCR-EX-TS-I-OLP(-SP)(-C)	DINrail
FA MCR-EX-HT-TS-I-OLP	Head (Screw clamp)
FA MCR-EX-HT-TS-I-OLP-PT	Head (Spring clamp)

(5) Manufacturer: PHOENIX CONTACT GmbH & Co.KG

(6) Address: Flachsmarktstraße 8
32825 Blomberg
Germany

(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment 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 of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 17TH0363.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012**

(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 annex to this certificate.

(11) This EU - Type Examination Certificate relates only to the design and examination of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 1G Ex ia IIC T6...T4 Ga (Head)
II 2G Ex ia IIC T6...T4 Gb (Head)

II 2(1)G Ex ib [ia Ga] IIC T6...T4 Gb (DIN Rail)

Certification department of explosion protection

Hamburg, 2021-01-29

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(13) # Annex

(14) **EU - Type Examination Certificate EPS 17 ATEX 1 130 X** **Revision 1**

(15) Description of equipment:

The temperature transmitter type MACX MCR-EX-TS-I-OLP(-SP)(-C) (DIN rail type) and FA MCR-EX-HT-TS-I-OLP, FA MCR-EX-HT-TS-I-OLP-PT (Head type) is a two wire transmitter with analogue output. It has measuring input circuits for resistance thermometers (RTD) in 2-, 3- or 4-wire connection, thermocouples and voltage transmitters.

The equipment is intended for the application inside the explosion hazardous area. The DIN Rail version is intended to be installed in control cabinets.

Description of revision 1:

Adaption of Standards.

New version (Screw terminals, head transmitter FA MCR-EX-HT-TS-I-OLP) added.

Electrical data:

Head transmitter:

Power supply (terminals + and -)	Ui	≤	30V DC
	Ii	≤	130 mA
	Pi	=	800 mW
	Ci	=	negligibly small
	Li	=	negligibly small
Sensor circuit (terminal 3 to 7)	Uo	≤	7.6V DC
	Io	≤	13 mA
	Po	≤	24.7 mW

Max. connection values

Ex ia IIC	Lo = 10 mH	Co = 1 µF
Ex ia IIB	Lo = 50 mH	Co = 4.5 µF
Ex ia IIA	Lo = 50 mH	Co = 6.7 µF

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DIN Rail transmitter:

Power supply			
(terminals 2.1, 2.2)	Ui	≤	30V DC
	Ii	≤	130 mA
	Pi	=	770 mW
	Ci	=	negligibly small
	Li	=	negligibly small
Sensor circuit			
(terminals 4.1, 4.2, 5.1, 5.2, 6.1, 6.2)	Uo	≤	9V DC
	Io	≤	13 mA
	Po	≤	29.3 mW

Max. connection values

Ex ia IIC	Lo = 5 mH	Co = 0.93 µF
Ex ia IIB	Lo = 20 mH	Co = 3.8 µF
Ex ia IIA	Lo = 50 mH	Co = 4.8 µF

Ambient temperature

Type (order option)	Temperature class	Ambient temperature Zone 1/EPL Gb	Ambient temperature Zone 0/ EPL Ga
FA MCR-EX-HT-TS-I-OLP-PT, FA MCR-EX-HT-TS-I-OLP	T6	-50°C ≤ Ta ≤ +58°C	-50°C ≤ Ta ≤ +46°C
	T5	-50°C ≤ Ta ≤ +75°C	-50°C ≤ Ta ≤ +60°C
Head transmitter without display	T4	-50°C ≤ Ta ≤ +85°C	-50°C ≤ Ta ≤ +60°C
FA MCR-EX-HT-TS-I-OLP-PT, FA MCR-EX-HT-TS-I-OLP	T6	-40°C ≤ Ta ≤ +55°C	
	T5	-40°C ≤ Ta ≤ +70°C	
Head transmitter with display (FA MCR-HT-D)	T4	-40°C ≤ Ta ≤ +85°C	
MACX MCR-EX-TS-I-OLP(-SP)(-C)	T6	-40°C ≤ Ta ≤ +46°C	
(DIN rail transmitter)	T5	-40°C ≤ Ta ≤ +61°C	
	T4	-40°C ≤ Ta ≤ +85°C	

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(16) Reference number: 17TH0363

(17) Special conditions for safe use:

In hazardous areas it is not permitted to use the CDI interface of FA MCR-EX-HT-TS-I-OLP-PT, FA MCR-EX-HT-TS-I-OLP, MACX MCR-EX-TS-I-OLP(-SP)(-C) for configuration.

(18) Essential health and safety requirements:

Met by compliance with standards.

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Hamburg, 2021-01-29

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