

Safety Instructions

Memosens CLS15E, CLS16E, CLS21E, CLS82E

EAC Ex 0Ex ia IIC T3/T4/T6 Ga X

Safety instructions for electrical apparatus in explosion-hazardous areas







Memosens CLS15E, CLS16E, CLS21E, CLS82E

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- Associated documentation** This document is an integral part of
-  Operating Instructions Memosens CLS21E, BA02020C
 -  Operating Instructions Memosens CLS15E, BA02018C
 -  Operating Instructions Memosens CLS16E, BA02019C
 -  Operating Instructions Memosens CLS82E, BA02027C

- Supplementary documentation**
-  Competence Brochure CP00021Z
 - Explosion Protection: Guidelines and General Principles
 - www.endress.com

Certificate EAC certificate, certificate number: EA3C RU C-DE.AA87.B.00833/21

- Identification** The nameplate provides you with the following information on your device:
- Manufacturer identification
 - Extended order code
 - Serial number
 - Safety information and warnings
 - Ex marking on hazardous area versions

► Compare the information on the nameplate with the order.

Type code

Type	Version					
CLS15E	- GA	**	**	a ¹⁾	***	+*
CLS16E	- GA	**	**	***	+*	
CLS21E	- GA	**	**	***	+*	
CLS82E	- GA	**	**	***	+*	
	EAC Ex 0Ex ia IIC T3/T4/T6 Ga X	No Ex relevance				

1) a = A, B

Certificates and approvals

- EAC Ex, 0Ex ia IIC T3/T4/T6 Ga X
- Zone 0
- The product has been certified in accordance with Directive TR CU 012/2011 valid within the Eurasian Economic Area (EAEU). The EAC conformity mark has been affixed to the product.

Certification Body


ООО "НАИО ЦСБЭ"
Russian Federation

Safety instructions

- It is not permitted to operate the sensor under electrostatically critical process conditions. Considerable steam and dust clouds that act directly on the Memosens sensor head must be avoided at all times.
- Ex-protected digital sensors with Memosens technology are identified by an orange-red ring on the terminal head.
- The electrical connection information provided in the Operating Instructions must be adhered to.
- The CLS15E-type sensors with non-metal process connections and the CLS21E-type sensors may only be employed for measurement in liquids with a minimum conductivity of 10 nS/cm.
- When using devices and sensors, the regulations for electrical systems in explosion-hazardous areas must be observed (EN/IEC 60079-14).

Temperature tables

Sensor type	T-Class	T _p (process)		T _a (ambient)
		min.	max.	max.
CLS15E-*****A****+	T3	-20 °C	135 °C	60 °C
	T4	-20 °C	120 °C	60 °C
	T6	-20 °C	70 °C	60 °C
CLS15E-*****B****+	T3	-20 °C	135 °C	60 °C
	T4	-20 °C	100 °C	60 °C
	T6	-20 °C	50 °C	60 °C
CLS16E-*****+*	T3	-5 °C	135 °C	60 °C
	T4	-5 °C	115 °C	60 °C
	T6	-5 °C	65 °C	60 °C
CLS21E-*****+*	T3	-20 °C	135 °C	60 °C
	T4	-20 °C	115 °C	60 °C
	T6	-20 °C	65 °C	60 °C
CLS82E-*****+*	T3	-20 °C	140 °C	60 °C
	T4	-20 °C	120 °C	60 °C
	T6	-20 °C	70 °C	60 °C

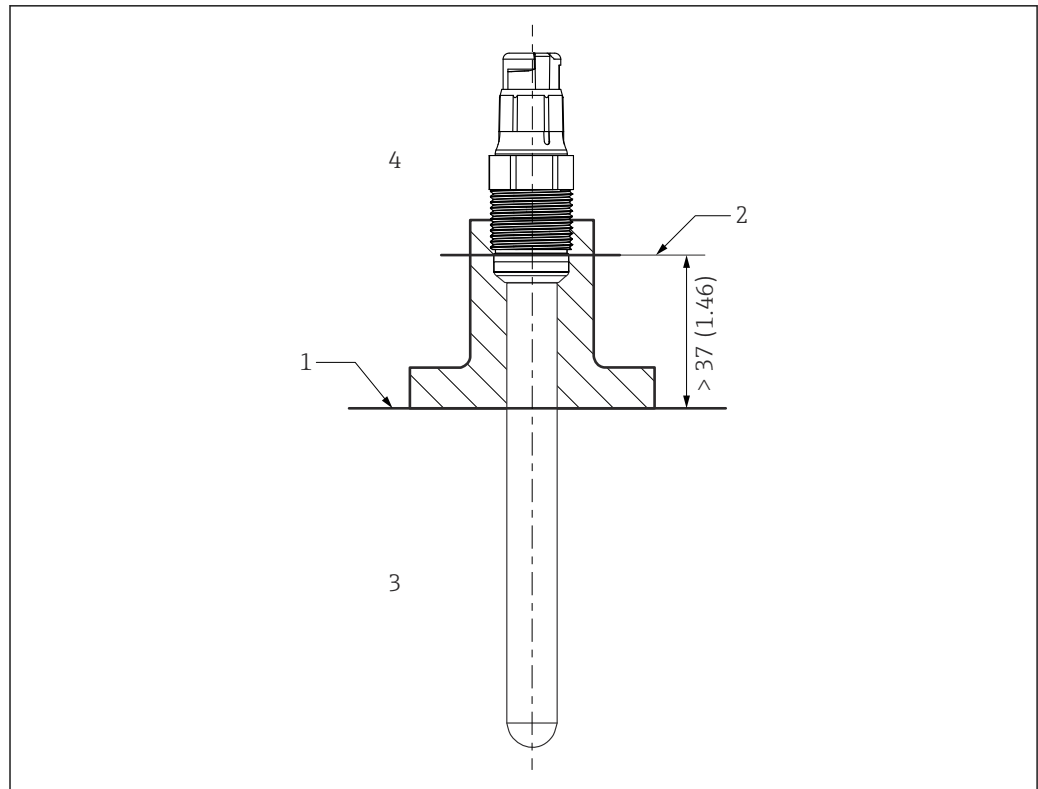
The above temperature table applies only under the following installation conditions, which are described in the following graphic →  1. If the installation conditions cannot be met, the maximum process temperature T_p must not exceed the maximum ambient temperature T_a.

Connection

Ex specification

- The approved CLSxxE-type digital conductivity sensors have an intrinsically safe input with the following parameter set:
P₁ = 180 mW
- The approved CLSxxE-type digital conductivity sensors may only be connected to a Memosens cable or a compact transmitter with an intrinsically safe output with the following parameter set:
P₀ max. 180 mW

Installation conditions



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1 Installation conditions

1 Limit

2 Distance between plug-in head (lower edge) and process medium, without ring and thrust collar

3 Process temperature T_p 4 Ambient temperature T_a





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