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Safety Instructions
Memosens CYK10

Memosens data cable

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

Endress+Hauser
People for Process Automation

Memosens CYK10

Memosens data cable

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Associated documentation

This document is an integral part of Operating Instructions BA00118C.

Supplementary documentation

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

Certificates and Declarations

The certificates and declarations of conformity are available in the Downloads area of the Endress +Hauser website:

www.endress.com/download

Identification

The nameplate provides you with the following information on your device:
- Manufacturer identification
- Order code
- 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		
CYK10	K	**	*
	EAC Ex 0Ex ia IIC T6/T4/T3 Ga X	No Ex relevance	

Certificates and approvals

Ex approvals

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.

Sensor	Certificate number	Ex marking
CYK10	ЕАЭС KZ 7500525.01.01.02089	0Ex ia IIC T6/T4/T3 Ga X

Certification Body

ТОО/ЖШС "Т-Стандарт"

Safety Instructions

The Memosens inductive sensor cable connection system, consisting of:
- Approved sensors
- Measuring cable CYK10

is approved for measuring applications in explosive atmospheres.

The sensor must be connected and operated in accordance with its operating instructions and the operating instructions of the connected transmitter. All operational data of the sensor must be observed by the operator.

- It is not permitted to operate the cable under electrostatically critical process conditions. Significant vapor and dust clouds, which have a direct impact on the connection system, must be avoided.
- The terminal head of the Memosens data cable must be protected against electrostatic charging if it is installed in the areas EPL Ga (Zone 0).
- Ex versions of Memosens cables are marked with an orange-red ring.
- The maximum permitted cable length is 100 m (328.1 ft).

- In order to maintain and guarantee the explosion protection of the device, the user may not modify the configuration in any way. Every change can compromise the safety of the device.
- Overvoltage category specification: I (Supply through limited energy circuit)
- Compliance with the regulations for electrical installations in hazardous areas (e.g. EN/IEC 60079-14) is mandatory when using devices and sensors.

Pay attention to the ex-related safety instructions of the transmitter and sensors when cabling.

Temperature tables

Cable Type	Ambient temperature range T_a		
	T3	T4	T6
CYK10	−15 °C (5 °F) ≤ Ta ≤ 135 °C (275 °F)	−15 °C (5 °F) ≤ Ta ≤ 120 °C (248 °F)	−15 °C (5 °F) ≤ Ta ≤ 70 °C (158 °F)

If the ambient temperatures specified above are not exceeded, there are no invalid temperatures at the cable according to the temperature class.

Connection

Ex specification

The approved CYK10 cable is used to connect to the ATEX/IECEx approved intrinsically safe sensor output circuits of the Liquiline CM42 transmitter (e.g. with sensor module FSDG1), Liquiline CM44 (e.g. with communication module 2DS Ex-i) or the digital sensor interface (Memosens) of the CM42B. The cable can alternatively be used with connectable devices certified with Ex approval. These must have an intrinsically safe Memosens sensor output specified with the following maximum values. In particular, the certified intrinsically safe sensor output may not exceed the effective inner inductance and capacitance of the values indicated below:

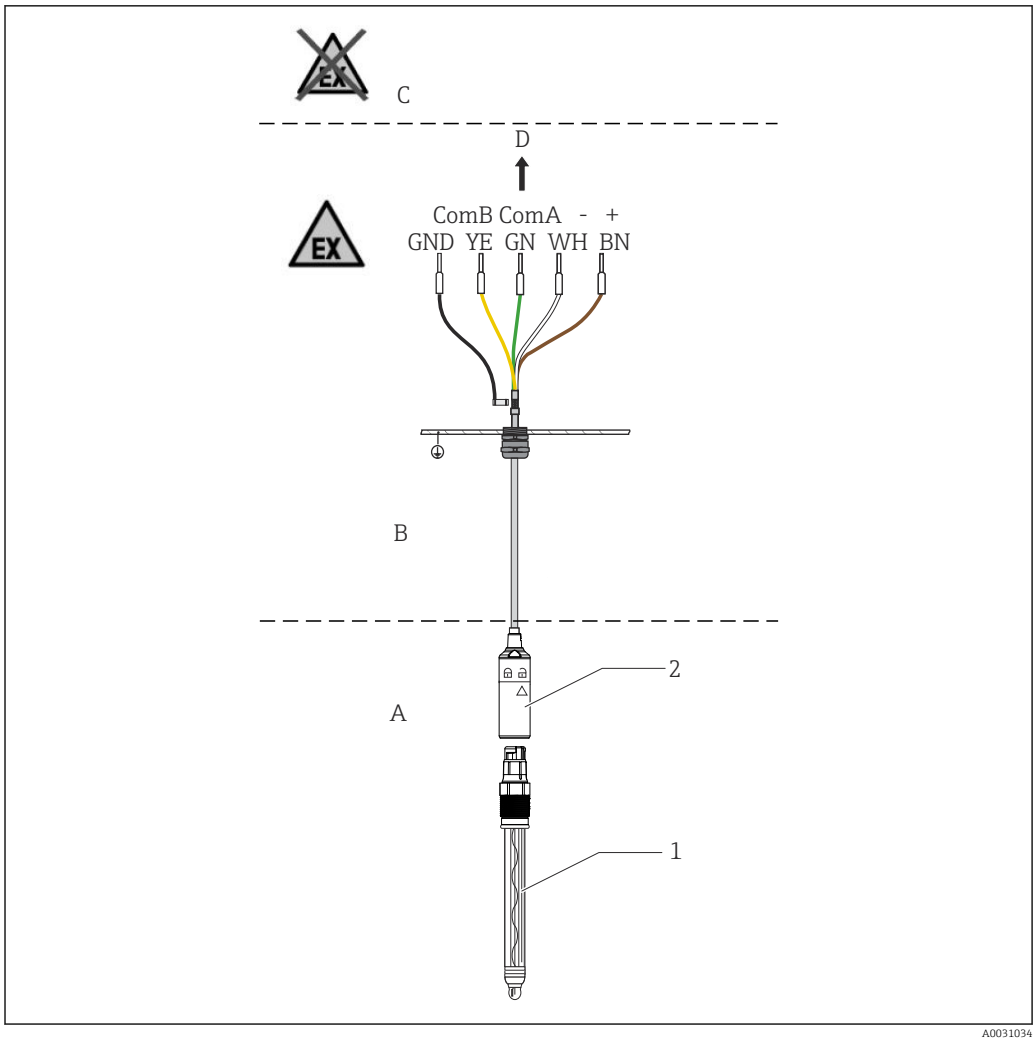
1. Entity parameter set	2. Entity parameter set
U_0 = 5.1 V	U_0 = 5.04 V
I_0 = 130 mA	I_0 = 80 mA
P_0 = 166 mW (linear output curve)	P_0 = 112 mW (trapezoid output curve)
C_i = 15 µF	C_i = 14.1 µF
L_i = 95 µH	L_i = 237.2 µH

The connection of energy-limited Memosens sensors (with a defined P_i) to the energy-limited Memosens data cable by means of inductive coupling is permitted, taking into consideration the following value:

Maximum output power P_0	178 mW

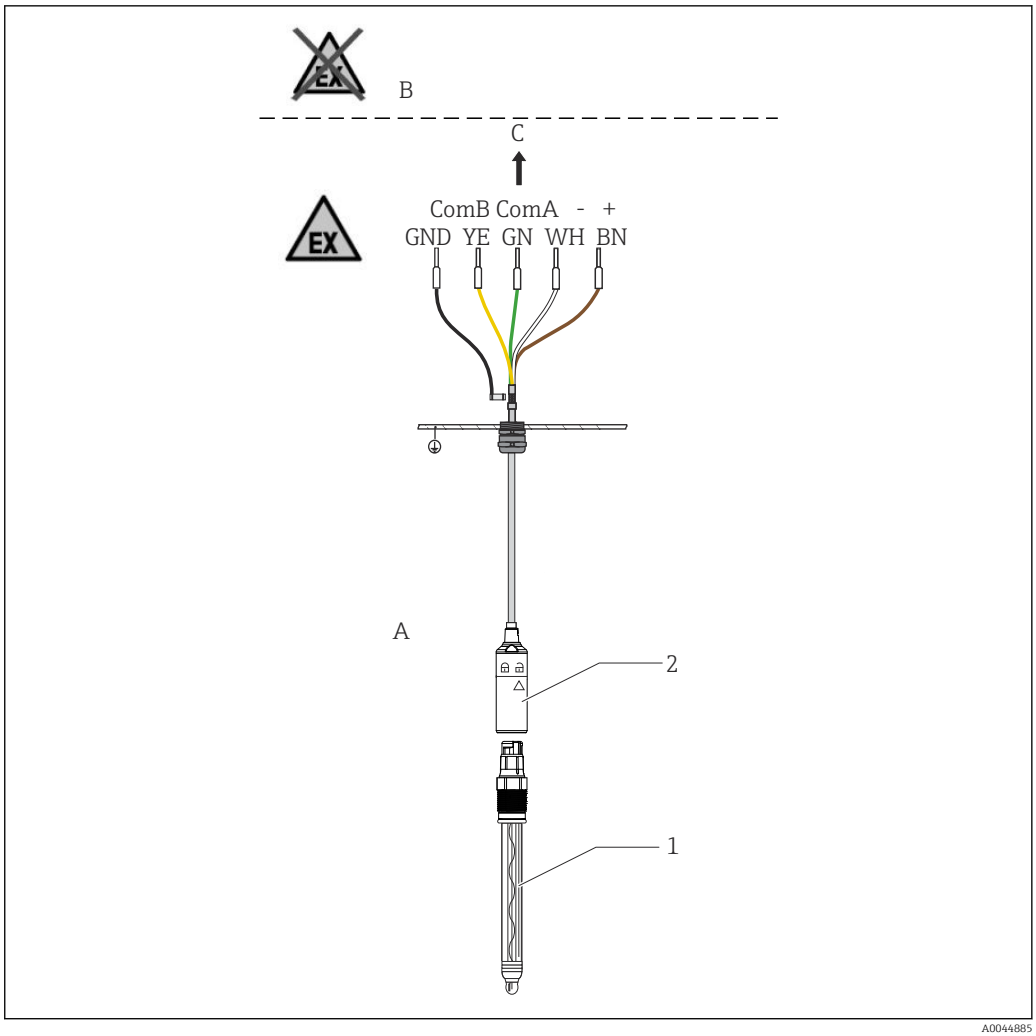
The electrical connection must be performed in accordance with the Operating Instructions.

Installation conditions



1 *Memosens data cable in Zone 0*

A Hazardous area Zone 0
B Hazardous area Zone 1
C Non-hazardous area
D Ex-certified transmitter CM42, CM42B or transmitter with an intrinsically safe output power
1 Certified Memosens sensor
2 Memosens data cable, P_0 = 178 mW



2 *Memosens data cable in Zone 1*

A Hazardous area Zone 1
B Non-hazardous area
C Ex-certified transmitter CM42, CM42B or transmitter with an intrinsically safe output power
1 Certified Memosens sensor
2 Memosens data cable, P_0 = 178 mW

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