

# Safety Instructions

## Memosens data cable CYK10

Safety instructions for electrical apparatus in  
explosion-hazardous areas  
UK Ex II 1 G Ex ia IIC T3/T4/T6 Ga



**UK  
CA**





# Memosens data cable CYK10

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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](http://www.endress.com)

## Certificates

UKCA Ex type-examination certificate, certificate number:  
CML 21UKEX2902X

## 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 labeling on hazardous area versions

► Compare the information on the nameplate with the order.

## Type code

Type	Version		
CYK10	M	**	*
	UK Ex II 1G Ex ia IIC T3/T4/T6 Ga	No Ex relevance	

## Certificates and approvals

### *Declaration of Conformity*

With this declaration of conformity, the manufacturer guarantees that the product conforms to UK statutory requirements:

- The Electromagnetic Compatibility Regulations SI 2016 No. 1091
- The Equipment and Protective Systems Intended for use in Potentially Explosive Atmosphere Regulations SI 2016 No. 1107
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations SI 2012 No. 3032

Compliance is verified by adherence to the standards listed in the Declaration of Conformity.

*CYK10*

II 1G Ex ia IIC T3/T4/T6 Ga

**Safety Instructions**

- 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).
- The following regulations must be observed when installing the devices and sensors:  
Electrical installations in hazardous areas (EN/IEC 60079-14)
- This device was developed and manufactured in accordance with SI 2016 No. 1107 dated 2016 and also complies with the following standards:
  - EN IEC 60079-0:2018 Electrical apparatus for explosive gas atmospheres
  - EN 60079-11:2012 Explosive atmospheres. Equipment protection by intrinsic safety "i"

**Temperature tables**

Cable Type	Ambient temperature range T <sub>a</sub>		
	T3	T4	T6
CYK10-M	-15 °C (5 °F) ≤ T <sub>a</sub> ≤ 135 °C (275 °F)	-15 °C (5 °F) ≤ T <sub>a</sub> ≤ 120 °C (248 °F)	-15 °C (5 °F) ≤ T <sub>a</sub> ≤ 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 Memosens data cable is used to connect to the UKCA-Ex-approved intrinsically safe sensor output circuits of the Liquiline CM42 transmitter (e.g. with sensor module FSDG1) or Liquiline CM44 transmitter (e.g. with communication module 2DS Ex-i). The cable can alternatively be used with devices certified with a UKCA 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:

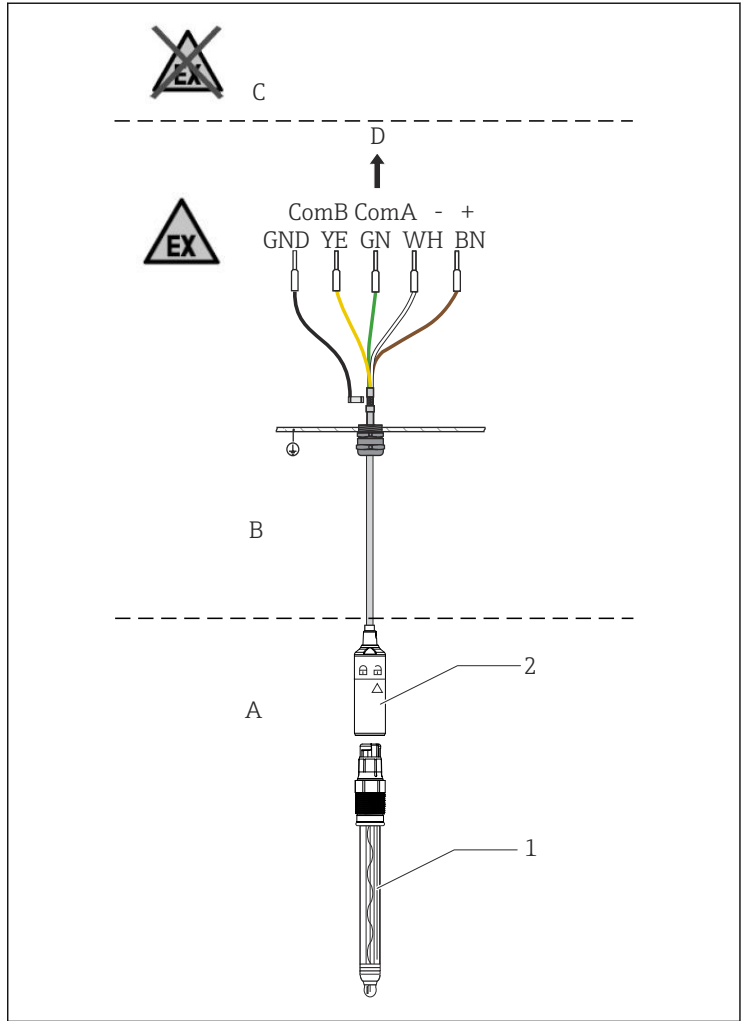
1. Entity parameter set	2. Entity parameter set
$U_0 = 5.1 \text{ V}$	$U_0 = 5.04 \text{ V}$
$I_0 = 130 \text{ mA}$	$I_0 = 80 \text{ mA}$
$P_0 = 166 \text{ mW}$ (linear output curve)	$P_0 = 112 \text{ mW}$ (trapezoid output curve)
$C_i = 15 \text{ }\mu\text{F}$	$C_i = 14.1 \text{ }\mu\text{F}$
$L_i = 95 \text{ }\mu\text{H}$	$L_i = 237.2 \text{ }\mu\text{H}$

The connection of energy-limited Memosens sensors (with a defined  $P_1$ ) 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
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The electrical connection must be performed in accordance with the Operating Instructions.

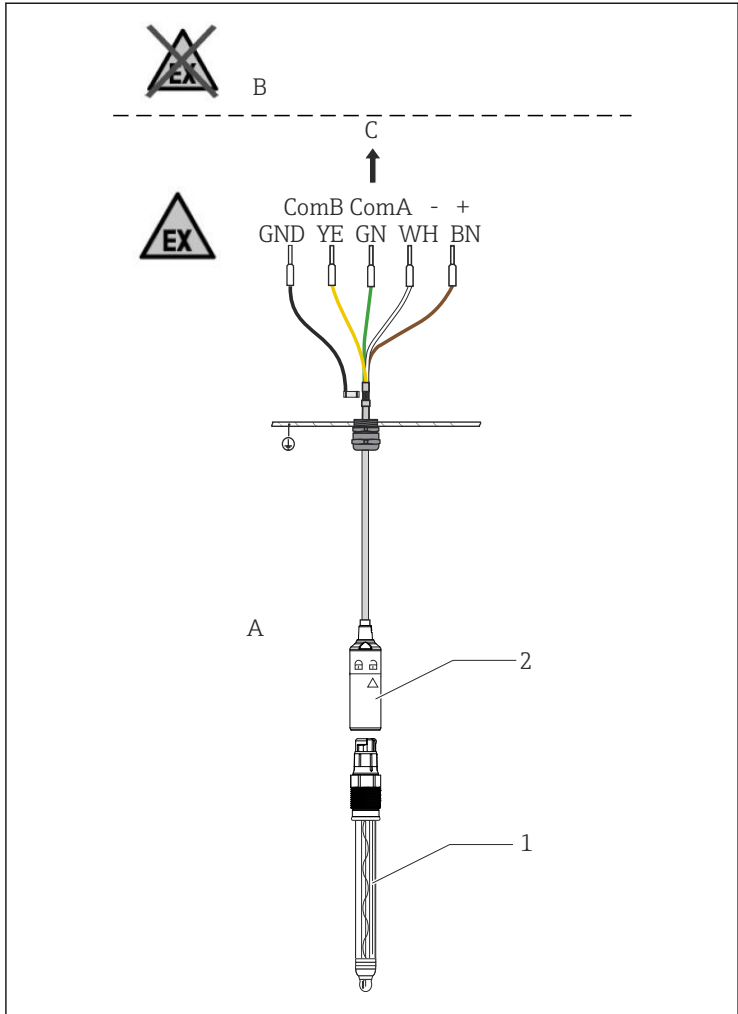
**Installation conditions**



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**1 Memosens data cable in Zone 0**

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



A0044885

**2** Memosens data cable in Zone 1

A Hazardous area Zone 1

B Non-hazardous area

C UKCA-Ex-certified transmitter CM42 or transmitter with an intrinsically safe output power

1 Certified Memosens sensor

2 Memosens data cable,  $P_0 = 178 \text{ mW}$











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