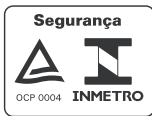


Safety Instructions

Memosens data cable CYK10

Safety instructions for electrical apparatus in
explosion-hazardous areas



Memosens data cable CYK10

Table of contents

Associated documentation	4
Supplementary documentation	4
Certificates	4
Identification	4
Safety Instructions	5
Temperature tables	5
Connection	5
Installation conditions	7

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

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

www.endress.com/download

Certificate of Conformity

For DE: TÜV 23.1276 X

For US: TÜV 23.0504 X

Identification

The nameplate provides you with the following information on your device:

- Manufacturer identification
- Order code
- Extended order code
- Serial number
- Ex marking on hazardous area versions

► Compare the information on the nameplate with the order.

Type code

Type	Version		
CYK10	G	**	*
	Ex ia IIC T3/T4/T6 Ga	No Ex relevance	

Certificates and approvals

The product has been certified in compliance with the following:

- ABNT NBR IEC 60079-0:2020
- ABNT NBR IEC 60079-11:2013
Portaria INMETRO n.º 115 de 21/03/2022

Ex approvals

CYK10

Ex ia IIC T3/T4/T6 Ga

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)
- The following regulations must be observed when installing the devices and sensors:
Electrical installations in hazardous areas (ABNT NBR IEC 60079-14)

 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-G	-15 °C (5 °F) ≤ T _a ≤ 135 °C (275 °F)	-15 °C (5 °F) ≤ T _a ≤ 120 °C (248 °F)	-15 °C (5 °F) ≤ T _a ≤ 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 Ex-approved intrinsically safe sensor output circuits of the Liquiline CM42 transmitter (e.g. with sensor module FSDG1). 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:

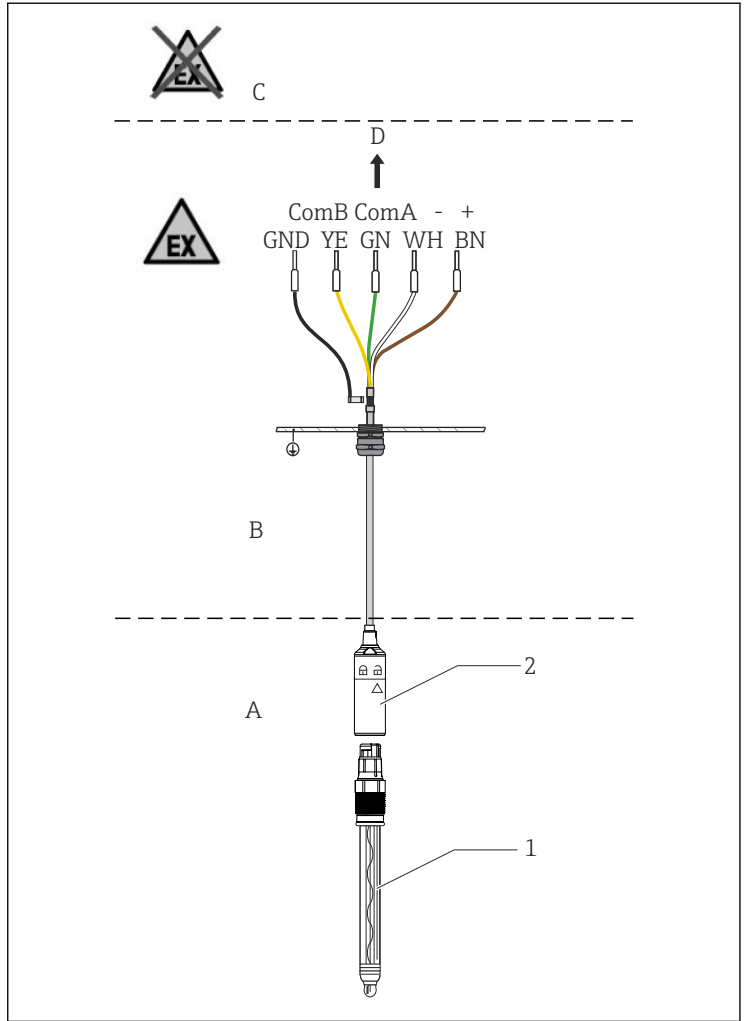
1. Entity parameter set	2. Entity parameter set
$U_0 = 5.1 \text{ V}$	$U_0 = 5.04 \text{ V}$
$I_0 = 130 \text{ mA}$	$I_0 = 80 \text{ mA}$
$P_0 = 166 \text{ mW}$ (linear output curve)	$P_0 = 112 \text{ mW}$ (trapezoid output curve)
$C_i = 15 \text{ }\mu\text{F}$	$C_i = 14.1 \text{ }\mu\text{F}$
$L_i =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

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
----------------------------	--------

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

Installation conditions



A0031034

1 Memosens data cable in Zone 0

A Hazardous area Zone 0

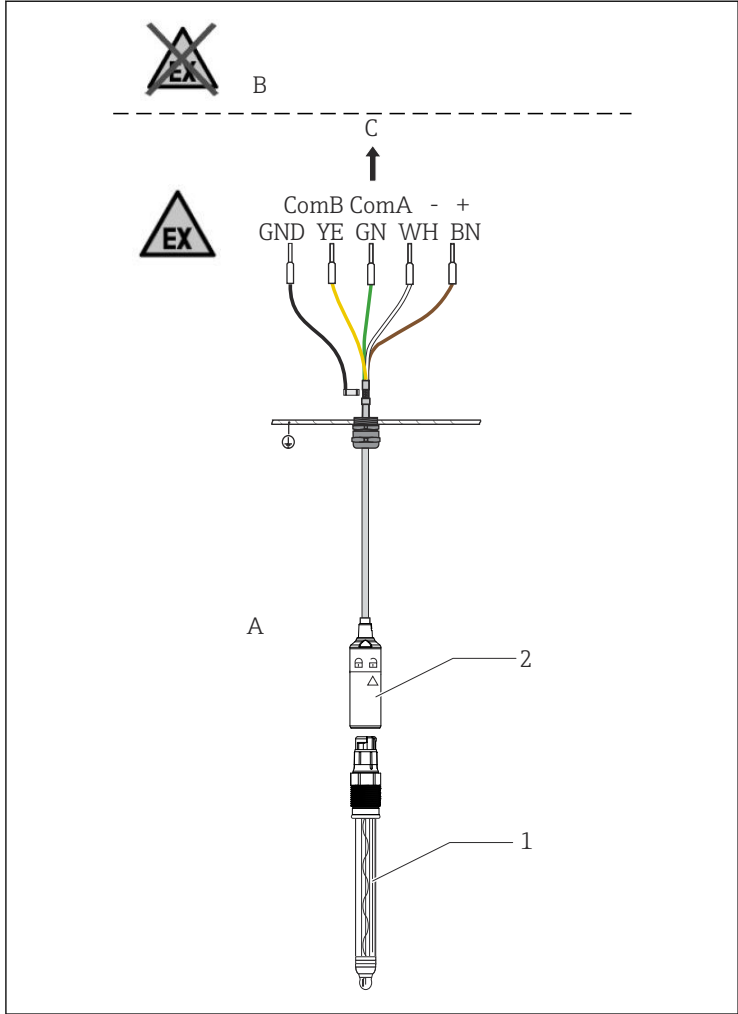
B Hazardous area Zone 1

C Non-hazardous area

D Ex-certified transmitter CM42 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 Ex-certified transmitter CM42 or transmitter with an intrinsically safe output power
- 1 Certified Memosens sensor
- 2 Memosens data cable, $P_0 = 178 \text{ mW}$



71663876

www.addresses.endress.com
