

Safety Instructions

Memosens oxygen sensors

NI Class I Div 2 Groups A, B, C, D

Safety instructions for electrical apparatus in explosion-hazardous areas



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Associated documentation This document is an integral part of the Memosens COS61D Operating Instructions BA00460C.

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

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.

Ex-approval

CSA Ex

Class I Div 2 Groups A, B, C, D

The product meets the requirements of:

CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems – For Hazardous Locations – Certified to U.S. Standards

This is verified by compliance with the following standards:

- ANSI/UL 61010-1, 3rd Ed. Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
- ANSI/UL 121201-2017 Non-Incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations
- ANSI/IEC 60529, Edition 2.2. 2013-08 Degrees of protection provided by enclosures (IP Code)

Notified body

CSA Group

Safety instructions

The digital oxygen sensor COS61D is suitable for use in hazardous areas in accordance with: CSA type-examination certificate 70220753

- The device must be installed in a housing or cabinet that can be accessed only by means of a tool or key.
- Pay attention to the control drawing and the specified application conditions in the Operating Instructions and follow the instructions.
- The final installation shall assure that the metallic sensor body is bonded to ground, as necessary.
- The procedures for electrical connection described in the Operating Instructions must be followed.
- Install the device according to the National Electrical Code (NFPA70) or the Canadian Electrical Code, Part 1 (C22.1), where applicable.

Type code

Memosens	xOS61D-aabbcddeee+f	
	x	O, C or OC (not ex-relevant)
	aa	Approval (not ex-relevant)
	bb	Application/ Measuring Range (not ex-relevant)
	c	Sensor adaption (not ex-relevant)

Memosens	xOS61D-aabbcddeee+f	
	d	Cable length (not ex-relevant)
	eee	only if x = O, OC (not ex-relevant)
	f	Optional = one or more characters determining optional features (not ex-relevant) e.g. test or other certificates/ declarations

Temperature table

Sensor	Process temperature T_p	Ambient temperature T_a
COS61D	$-5\text{ °C (23 °F)} \leq T_p \leq 60\text{ °C (140 °F)}$ (T6)	$-20\text{ °C (-4 °F)} \leq T_a \leq 60\text{ °C (140 °F)}$ (T6)

Connection

Installation of fixed cable sensors shall be as per document BA00460CEN.

The digital sensors with cable (Type ITC/PLTC maximum cable length 100m) shall be connected to the CM44x(R).

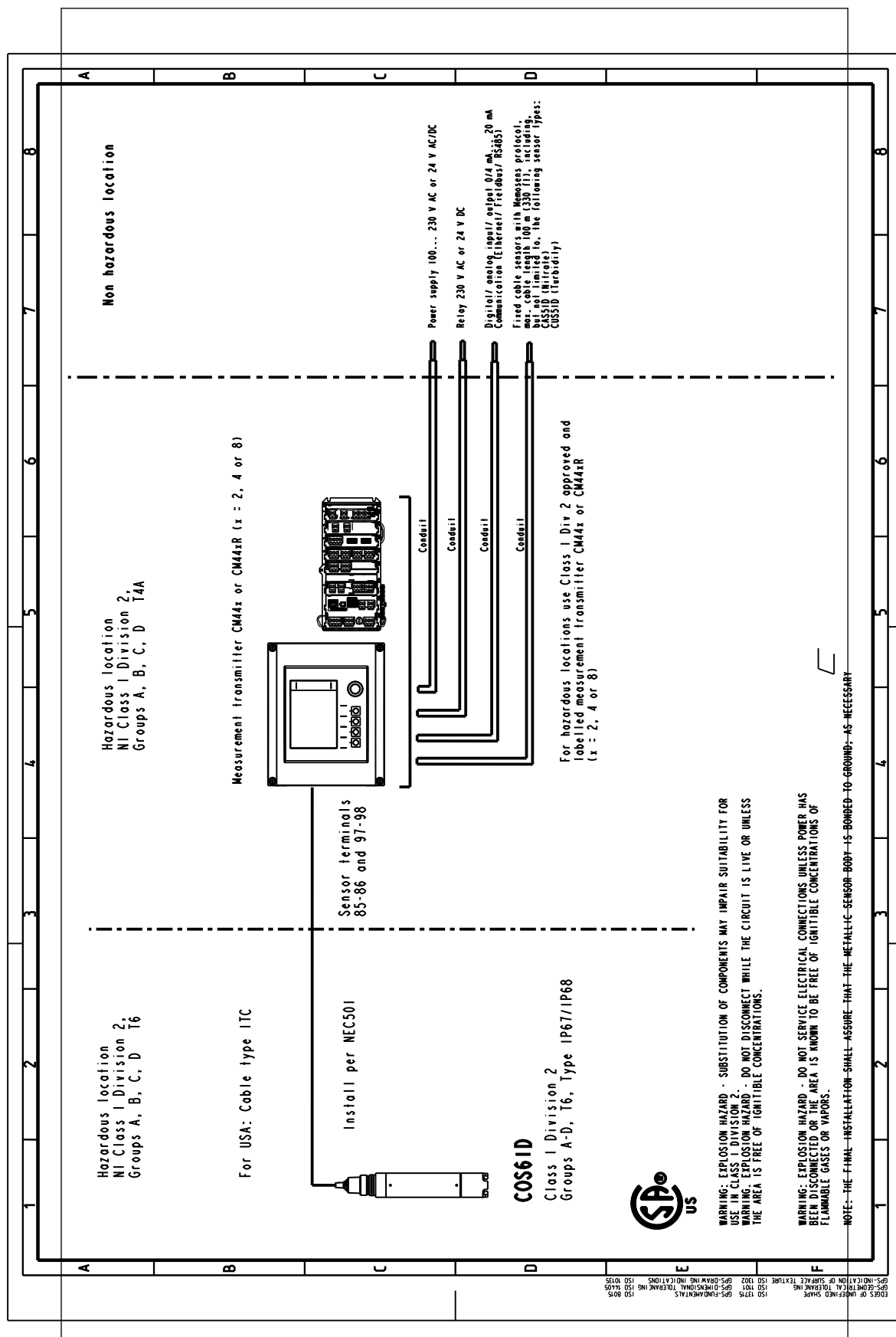
WARNING

Explosion Hazard

Substitution of components may impair suitability for use in class 1 Division 2.

- ▶ Do not disconnect while the circuit is live or unless the area is free of ignitable concentrations.
- ▶ Do not service electrical connections unless power has been disconnected or the area is known to be free of ignitable concentrations of flammable gases or vapors.

Installation conditions



A0057126



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