



# Certificate of Compliance

**Certificate:** 70220753

**Master Contract:** 205557

**Project:** 70220753

**Date Issued:** 2020-11-09

**Issued To:** Endress+Hauser Conducta GmbH & Co. KG  
Dieselstraße 24  
Gerlingen, Baden-Württemberg, 70839  
Germany

**Attention:** Marco Rottmann

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicator 'US'*



**Issued by:** ~~Peter Do~~  
Peter Do

## PRODUCTS

**CLASS 2258 83** - PROCESS CONTROL EQUIPMENT – Intrinsically Safe and Non-Incendive Systems – For Hazardous Locations – Certified to U.S. Standards

**Class I, Division 2, Groups A, B, C and D T6; IP67/IP68;**

• Oxymax COS61D-aa-bb-c-d+ee-ff-gg-hh oxygen sensor for liquid analysis, connected to transmitter CM44x(R) with a maximum cable length of 100m with type ITC/PLTC cable; temperature code,  $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ ; rated 24 Vdc, 15mA;

Order Codes:

COS61D-aa-bb-c-d+ee-ff-gg-hh

aa

**Approval:**

CJ CSA US NI Cl. 1 Div. 2 GP A-D T6

bb

**Application/ Measuring Range (not ex-relevant)**

A1 Oxygen 0... 20 mg/l

Y9 Special version



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c		<b>Sensor adaption (not ex-relevant)</b>
	A	Fixed Cable; crimp sleeves
	B	Fixed Cable; M12 plug
	Y	Special version
d		<b>Cable length (not ex-relevant)</b>
	2	3 m
	3	7 m
	4	15 m
	7	..... m length
	8	..... ft length
	9	Special construction
ee		<b>Accessories, mounted (not ex-relevant)</b>
	IA	Air cleaning; 6 or 8 mm
	IB	Air cleaning; 6.35 mm (1/4")
	I9	Special construction
ff		<b>Test, certificate, declaration (not ex-relevant)</b>
	K9	Special construction
gg		<b>Sealing material (not ex-relevant)</b>
	T9	Special construction
hh		<b>Marking (not ex-relevant)</b>
	Z1	Measuring site (TAG)

Note: The final installation shall assure that the metallic sensor body is bonded to ground, as necessary.

**Conditions of Acceptability:**

1. Warnings and installation instructions shall be followed as stated in control drawing 211050778.
2. The digital sensors with cable (Type ITC/PLTC maximum cable length 100m) shall be connected to the CM44x(R) Liquiline transmitter as per instructions in the control drawing 211050778.
3. Installation of fixed cable sensors shall be as per document BA00460CEN

**APPLICABLE REQUIREMENTS**

ANSI/UL 61010-1, 3 <sup>rd</sup> 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)



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## MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.

Additional markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent 'US' indicator for US only (indicating that products have been manufactured to the requirements of U.S. Standards).

### Method of Marking

Markings are etched directly onto the housing using laser printing same as for other sensors approved under CSA report 80021719

Refer to drawing # COS61D\_NP\_CSZ-Ex for the sensors name plate details.

- Manufacturer's name: "Endress+Hauser", or CSA Master Contract Number "205557", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: 24 Vdc, 15mA;
- Ambient temperature rating :  $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ .
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- Enclosure ratings: **IP67/IP68**
- The products listed are eligible to bear the CSA Mark shown with adjacent indicators with adjacent indicator



'US' for US only,  .

- Hazardous Location designation: **Class I, Division 2, Groups A, B, C, and D**
- Temperature code: **T6**
- The following words:
  - "Install per drawing 211050778."

The following additional markings are required to appear on the product:

1. Marking on the unit that indicates the manufacturing location if the equipment is manufactured at more than one factory location. Model designation;
2. Date of manufacture: Month and year of manufacture or date code. If a serial number is used instead of date of manufacture, a record of serial numbers shall be kept traceable to date of manufacture. (Not related to date of sale).
3. Warnings



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
00070220753	2020-11-09	Original Certification of new Oxymax sensor model COS61D for Class I Div. 2, Grps ABCD, T6 to be used with Liquiline transmitter CM44x(R).

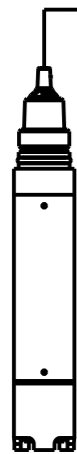
Hazardous location  
 NI Class I Division 2,  
 Groups A, B, C, D T6

Hazardous location  
 NI Class I Division 2,  
 Groups A, B, C, D T4A

Non hazardous location

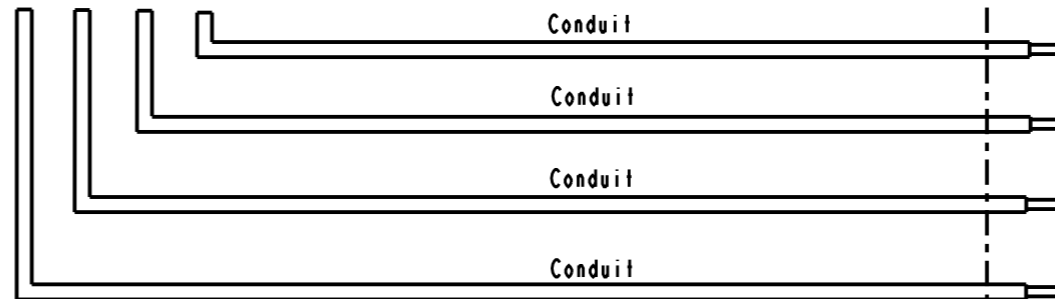
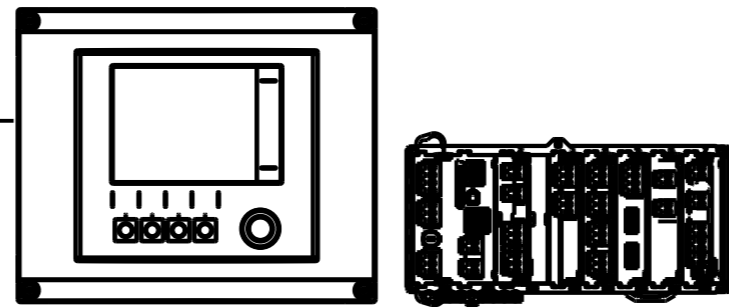
For USA: Cable type ITC

Measurement transmitter CM44x or CM44xR (x = 2, 4 or 8)



Install per NEC501

Sensor terminals  
 85-86 and 97-98



Power supply 100... 230 V AC or 24 V AC/DC

Relay 230 V AC or 24 V DC

Digital/ analog input/ output 0/4 mA... 20 mA  
 Communication (Ethernet/ Fieldbus/ RS485)

Fixed cable sensors with Memosens protocol,  
 max. cable length 100 m (330 ft), including,  
 but not limited to, the following sensor types:  
 CAS51D (Nitrate)  
 CUS51D (Turbidity)

For hazardous locations use Class I Div 2 approved and  
 labelled measurement transmitter CM44x or CM44xR  
 (x = 2, 4 or 8)

COS61D

Class I Division 2  
 Groups A-D, T6, Type IP67/IP68



**WARNING: EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR USE IN CLASS I DIVISION 2.**  
**WARNING: EXPLOSION HAZARD - DO NOT DISCONNECT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.**

**WARNING: EXPLOSION HAZARD - DO NOT SERVICE ELECTRICAL CONNECTIONS UNLESS POWER HAS BEEN DISCONNECTED OR THE AREA IS KNOWN TO BE FREE OF IGNITIBLE CONCENTRATIONS OF FLAMMABLE GASES OR VAPORS.**

NOTE: THE FINAL INSTALLATION SHALL ASSURE THAT THE METALLIC SENSOR BODY IS BONDED TO GROUND; AS NECESSARY

B

<b>Endress+Hauser</b> Endress+Hauser Conducta GmbH+Co. KG 70839 Gerlingen, Germany	Refer to protection notice ISO 16016 Classification	internal		Scale 1:5	Tolerance -	
	Control Drawing COS61D CSA			Notif. no. 0 Number of changes 1 <span style="border: 1px solid black; padding: 0 2px;">B</span> Status Released	Designed 06.11.2019 BlochwitzS Drawing chng. 04.01.2021 BLOCHWITZS Welding contr. Approval contr. Pressure contr. Released 04.01.2021 HOEHNET	
	Control Drawing COS61D CSA			No. of document 211050778	Version B	Doc. part 000
	434199			Weight	Volume	
	Material -			SAP material no. 71094592	Format DIN A3	Sheet 1/1

ISO 13715 GPS-FUNDAMENTALS ISO 8015  
 ISO 1101 GPS-DIMENSIONAL TOLERANCING ISO 14405  
 ISO 1302 GPS-DRAWING INDICATIONS ISO 10135  
 EDGES OF UNDEFINED SHAPE  
 GPS-GEOMETRIC TOLERANCING  
 GPS-INDICATION OF SURFACE TEXTURE