

AUTHORIZATION TO MARK

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

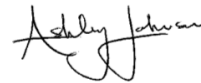
This document is the property of Intertek Testing Services and is not transferable. The certification mark(s) may be applied only at the location of the Party Authorized To Apply Mark.

Applicant:	Endress + Hauser Conducta Inc	Manufacturer:	Endress + Hauser Conducta Inc
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Party Authorized To Apply Mark: Same as Manufacturer
Report Issuing Office: Dallas, TX

Control Number: 5000765

Authorized by: _____



for Thomas J. Patterson, Certification Manager



This document supersedes all previous Authorizations to Mark for the noted Report Number.

This Authorization to Mark is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Authorization to Mark. Only the Client is authorized to permit copying or distribution of this Authorization to Mark and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement and in this Authorization to Mark. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
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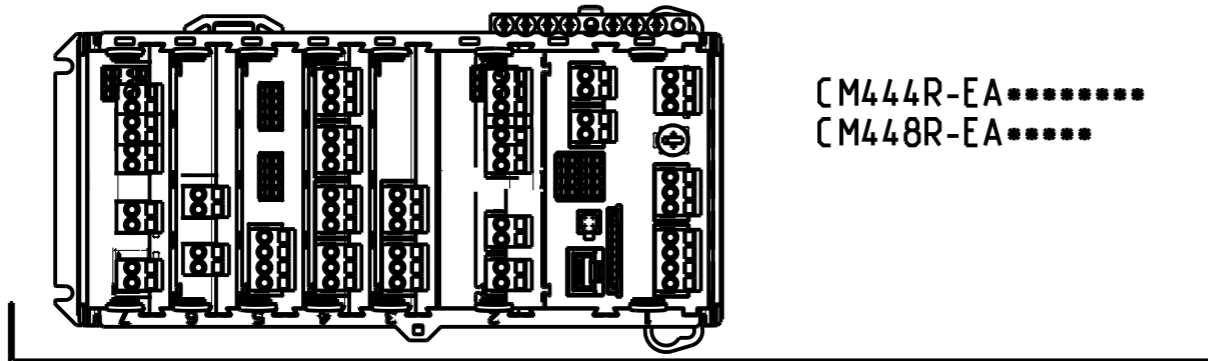


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Standard(s):	<p>Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations; Gen. Inst. No. 1 1987 (CSA C22.2 No. 213, Issued: 1987/03/01 Ed: 1 (R2013))</p> <p>Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations (ANSI/ISA 12.12.01, Issued: 3rd June 2013)</p> <p>Electric Equipment for Use in Hazardous (Classified) Locations - General Requirements (FM 3600, Issued:2011/12/01)</p> <p>Nonincendive Electrical Equipment for use in Class I and II, Division 2 and Class III, Division 1 and 2, Hazardous (Classified) Locations (FM 3611, Issued:2004/12/01)</p>
Product:	<p>Four-Wire Multichannel Controller & Sensor For use in Class I, Division 2, Groups ABCD Hazardous Locations</p> <p>Temperature Code and Ambient Temperature Range (Transmitter): T4A: 0°C to +55°C Temperature Code and Ambient Temperature Range (Sensor): T6: -5°C to +55°C</p>
Brand Name:	<p>Controller: Liquiline Sensor: Chloromax</p>
Models:	<p>Controller: CM444R/CM448R Sensor: CCS142D</p>

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

Non hazardous location

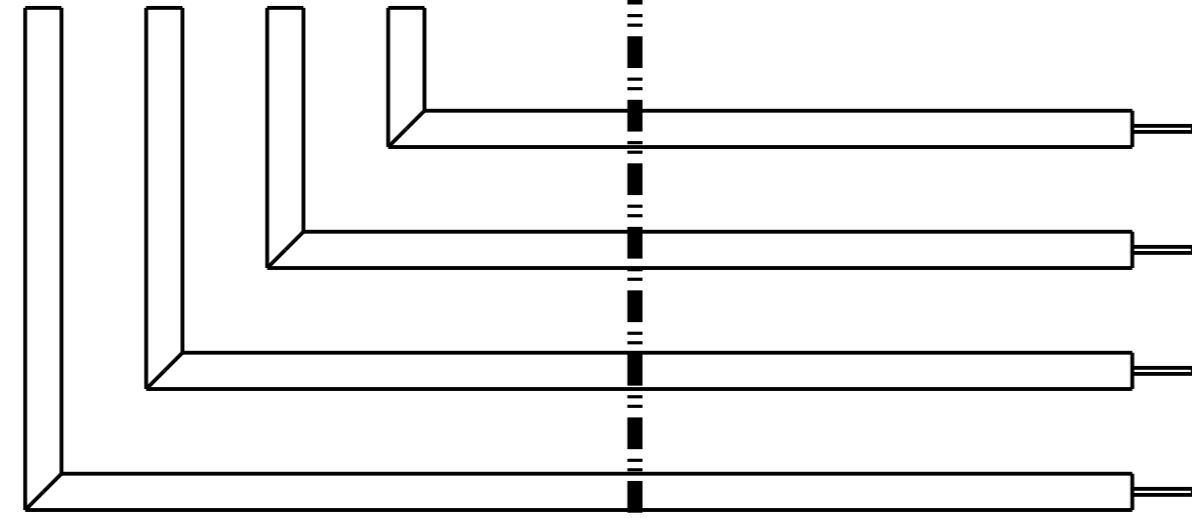
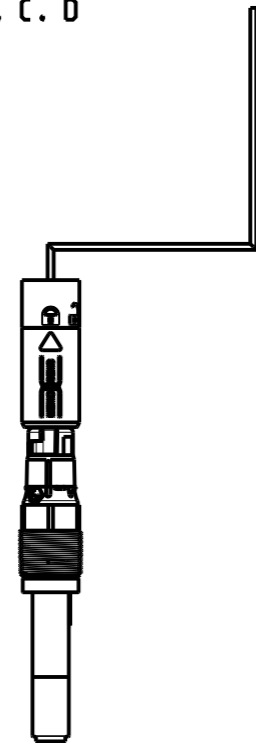


CM44R-EA.....
 CM448R-EA.....

Non-Incendive Field Wiring Connections
 for Class I, Division 2, Groups A, B, C, D
 (Terminals 87, 88, 97, 98):

CYK10 - 0/S...
 CYK20 - CA/FA....
 Max. cable length 100 m (330 ft)

- Digital chlorine sensors
- CCS142D - *E...
- Digital pH sensors
- CPS11D/41D/71D/91D -(*)G
- CPS441D/471D/491D - ..(*)G
- CPF81D -0
- Digital combined pH/ ORP sensors
- CPS16D/76D/96D -G
- Digital ORP sensors
- CPS12D/42D/72D/92D -(*)G
- CPF82D -0
- Digital conductivity sensors
- CLS15D/21D - ...0
- CLS16D -0
- CLS50D-C2/FB....
- Digital DO sensors
- COS21D - ..3..
- COS22D - 8A.....3
- COS51D - 0....
- Digital sensor simulators
- CYP01D/02D - ...(*)G



- Power supply 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)
 COS61D (Dissolved oxygen)
 CUS51D (Turbidity)

Note:
 Installation shall be in accordance with the NEC/ CEC.

THIS APPARATUS IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A,B,C,D OR UNCLASSIFIED LOCATIONS

WARNING: EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR USE IN CLASS I DIVISION 2.
 AVERTISSEMENT: RISQUE D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS PEUT RENDRE CE MATERIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE I DIVISION 2.

WARNING: EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.
 AVERTISSEMENT: RISQUE D'EXPLOSION - AVANT DE DECONNECTER L'EQUIPEMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DESIGNÉ NON DANGEREUX.

WARNING: EXPOSURE TO SOME CHEMICALS MAY DEGRADE THE SEALING PROPERTIES OF MATERIALS USED IN THE FOLLOWING DEVICES: Power Relay Takamisawa JS12N-K

WARNING: EXPLOSION HAZARD - DO NOT SERVICE ELECTRICAL CONNECTIONS (CONNECT OR DISCONNECT RELAYS, REMOVE OR REPLACE PLUG-IN MODULES) UNLESS POWER HAS BEEN DISCONNECTED OR THE AREA IS KNOWN TO BE FREE OF IGNITIBLE CONCENTRATIONS OF FLAMMABLE GASES OR VAPORS.

THE DEVICE MUST BE INSTALLED IN A SUITABLE CABINET OR ENCLOSURE WHICH PERMITS ACCESS BY TOOL OR KEY ONLY.
 L'INSTRUMENT DOIT ETRE INSTALLE DANS UN BOITIER OU UNE ARMOIRE ELECTRIQUE OU L'ACCES EST POSSIBLE SEULEMENT AVEC UN OUTIL OU AVEC UNE CLE.

Schutzvermerk nach ISO 16016 beachten.		PLM	DIS	Endress+Hauser Conducta GmbH & Co. KG Gertlingen, Germany		Endress+Hauser
Refer to protection notice ISO 16016.		403936/000/E		Werkstoff/material: -		
Status	In_Entwicklung			Maßstab/scale:	Zeichnungsnummer / drawing-no.	INDEX E
	Datum/date Name/name			403936		
entworfen designed	2014-11-07 Oa	Toleranz/tolerance		Benennung / title:		CONTROL DRAWING CM444R-EA...../ CM448R-EA..... CONTROL DRAWING CM444R-EA...../ CM448R-EA.....
Änderung revision	..	ISO 2768-mH-E				
geändert revised	2015-04-28 Oa	creator- system	Pro/E			
geprüft approved	-	Format	DIN A3			
Gerät/used for: CM444R/ CM448R ETL		Blatt/page 1/1				

GEOMETRICAL TOLERANCING
 SURFACE TEXTURE
 EDGES OF WORKING PARTS
 DIN ISO 1101
 DIN ISO 1302
 DIN 6784