



# Certificate of Compliance

<b>Certificate:</b>	80219586	<b>Master Contract:</b>	205557
<b>Project:</b>	80262293	<b>Date Issued:</b>	2026-03-16
<b>Issued to:</b>	<b>Endress+Hauser Conducta GmbH &amp; Co. KG Dieselstraße 24 Gerlingen, Baden- Württemberg 70839 Germany</b>	<b>Issued by:</b>	<i>Cem Kayadibi</i> Cem Kayadibi

**Attention:** Marco Rottmann

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



## PRODUCTS

**Class 2258 04 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations**  
**Class 2258 84 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations - Certified to US Standards**

**CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, entity - For Hazardous Locations - Certified to US Standards**

**Class I, Zone 0 AEx ia IIC T3/T4/T6 Ga**  
**Class I, Division 1, Groups A, B, C, D T3/T4/T6**

Conductive conductivity sensor, models: **CLS16B- aabbccdefff+g.**



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Rated Input: 15V dc, 30mA, 130mW max.

IP 68. MWP 1200 kPa.

Intrinsically safe when installed per the control drawing in the safety instructions XA03346C.

**Entity Parameters:**

$V_{max}$ (or $U_i$ )	= 15V DC
$I_{max}$ (or $I_i$ )	= 30mA
$P_{max}$ (or $P_i$ )	= 130mW
$C_i$	$\leq 1nF/m$
$L_i$	$\leq 6\mu H/m$

**Thermal Ratings:**

The sensor is suitable for use in the following ambient temperature range:

-	Temperature class T6/T4/T3:	-20°C to +60°C
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The sensor is suitable for use in the following process temperature range:

-	Temperature class T3:	-5°C to +150°C
-	Temperature class T4:	-5°C to +115°C
-	Temperature class T6:	-5°C to +65°C

**Type Code:**

Condumax	xLS16B-aabbccdefff+g	
	x	x = C: E+H-labeled version (not Ex-relevant) x = O: OEM/label partner-labeled version (not Ex-relevant) x = OC: OEM/label partner-labeled version (not Ex-relevant)
	aa	Order option ex-certification
	bb	Process connection (no ex-relevance)
	cc	Material (no ex-relevance)
	d	Cable connection (no ex-relevance)
	e	Temperature sensor A = Pt100 B = Pt1000
	fff	only if x = O, OC = three characters determining OEM/label partner (no ex-relevance)
	g	Optional = one or more characters determining optional features (no ex-relevance) e.g. test or other certificates/ declarations

**Conditions of Acceptability:**

N/A – None.

**Class I, Zone 0, AEx ia IIC T4/T6 Ga**



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**Class I, Zone 2, AEx ia IIC T4/T6 Gc**

**Class I, Division 1, Groups A, B, C, D T4/T6**

**Class I, Division 2, Groups A, B, C, D T4/T6**

Inductive conductivity sensor, model \*LS50-S\*\* \* \*\*\*\*.

Supply is provided by a fixed (non-detachable) cable with a maximum permissible length of 55 m.

Intrinsically safe when installed per the control drawing in the safety instructions XA02836C.

**Entity Parameters:**

$V_{max}$ (or $U_j$ )	= 14V
$I_{max}$ (or $I_j$ )	= 100mA
$P_{max}$ (or $P_j$ )	= 350mW
$C_i$	≤ 85pF/m – (only cable)
$L_i$	< 0.25μH/m – (only cable)

**Thermal Ratings:**

The sensor is suitable for use in the following ambient/ process temperature range:

-	Temperature class T4:	-20°C to +125°C
-	Temperature class T6:	-20°C to +75°C

**Type Code:**

	xLS50-Sabcd
x	O, C or OC (not Ex-relevant)
S	CSA
a	Process connections (not Ex-relevant)
b	Sealings/Sensor head PFA/PEEK (not Ex-relevant)
c	Length of cable e.g. 1 = 5m
ddd	Only if x = O, OC (not Ex-relevant)

**Conditions of Acceptability:**

1. The sensor may only be used in liquid media with a conductivity of >10 nS/cm.
2. The non-metallic process connector must be protected from electrostatic charging.
3. The measurement cable must be protected from electrostatic charging, when applied in Division 1 areas.
4. Metallic process connection parts have to be mounted at the mounting location electrostatically conductive (<1MΩ)

**Class I, Zone 0, AEx ia IIC T3/T4/T6 Ga**

**Class I, Division 1, Groups A, B, C, D T3/T4/T6**

**Class I, Division 2, Groups A, B, C, D T3/T4/T6**



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Inductive conductivity sensors INDUMAX, models **xLS54-\*\*\*\*\*2\*\*\***.  
 Supply is provided by a fixed (non-detachable) cable with a maximum permissible length of 50 m.  
 Intrinsically safe when installed per the control drawing in the safety instructions XA02836C.

**Entity Parameters:**

- $V_{max}$  (or  $U_i$ ) = 14V
- $I_{max}$  (or  $I_i$ ) = 100mA
- $P_{max}$  (or  $P_i$ ) = 140mW
- $C_i$  ≤ 85pF/m – (only cable)
- $L_i$  < 0.25μH/m – (only cable)

**Thermal Ratings:**

The sensor is suitable for use in the following ambient/ process temperature range:

- Temperature class T3: -10°C to +125°C (150°C for max. 60 min.)
- Temperature class T4: -10°C to +105°C
- Temperature class T6: -10°C to +55°C

**Type Code:**

	xLS54-abbcd2eee
x	O, C or OC (not Ex relevant)
a	Order option Ex certification (not Ex relevant)
bbb	Process connections (not Ex relevant)
c	Additional equipment (not Ex relevant)
d	Cable connection length, 1 = 5m; 2 = 10m; 3 = 20m; 4 = nm (max. 50m)
2	Temperature sensor Pt1000
eee	Only if x = O, OC (not Ex relevant)

**Conditions of Acceptability:**

1. The sensor may only be used in liquid media with a conductivity of >10 nS/cm.
2. Metallic process connection parts have to be mounted at the mounting location electrostatically conductive (<1MΩ).
3. The manufacturer's instruction regarding the permissible process conditions have to be adhered to.
4. Ambient temperature range of the connecting head of the sensor or the connecting cable: -20°C up to +60°C.

**Class I, Zone 0, AEx ia IIC T6/T4/T3/T2 Ga** (Sensor type xLS13-\*\*\*\*\*)

**Class I, Zone 0, AEx ia IIC T6/T4/T3 Ga** (All other types)

**Class I, Division 1, Groups A, B, C, D T6/T4/T3/T2** (Sensor type CLS13-\*\*\*\*\*)

**Class I, Division 1, Groups A, B, C, D T6/T4/T3** (All other types)

Conducted conductivity sensors, models: **xLS##-abcdfff+g**.  
 Supply is provided by cable with a maximum permissible length of 50 m.



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Intrinsically safe when installed per the control drawing in the safety instructions XA03346C.

**Entity Parameters:**

CLS12 or CLS13: Terminals

CLS15, CLS16, CLS16B or CLS21: Connector or permanent connected cable:

$V_{max}$ (or $U_j$ )	= 15V DC
$I_{max}$ (or $I_j$ )	= 30mA
$P_{max}$ (or $P_j$ )	= 130mW
$C_i$	= 1nF/m – (only cable)
$L_i$	= 6μH/m – (only cable)

The input circuit has to be considered to be grounded when connected to the sensor.

**Thermal Ratings:**

The sensors are suitable for use in the following ambient/ process temperature range:

Model			T2	T3	T4	T6
xLS12	-abbc	dfff+g:	--	-20°C to +160°C	-20°C to +125°C	-20°C to +75°C
xLS13	-abbc	dfff+g:	-20°C to +250°C	-20°C to +190°C	-20°C to +125°C	-20°C to +75°C
xLS15	-abbc	dfff+g:	--	-20°C to +140°C	-20°C to +115°C	-20°C to +65°C
xLS21	-abbc	Afff+g:	--	-20°C to +135°C	-20°C to +115°C	-20°C to +65°C
xLS21	-abbc	Dfff+g:	--	-20°C to +135°C	-20°C to +130°C	-20°C to +80°C

**Type Code:**

xLS##-abbc dfff+g	
x	C, O or OC (not Ex relevant)
##	Sensor type: 12, 13, 15, 21
a	A = Measuring Range, Cell Constant k=0.01/cm B = Measuring Range, Cell Constant k = 0.1/cm C = Measuring Range, Cell Constant k=1/cm L = Cleaning Procedure PWIS free: xLS15-L* = PWIS free version of xLS15-B*, xLS21-L* = PWIS free version of xLS21-C* (no Ex-relevance)
bb	Process connections (not Ex relevant)
c	Cable connection (not Ex relevant) 1,4,5 = without fixed cable 2 = with 5m fixed cable 3 = with 10 m fixed cable 9 = Special version (in accordance to ex regulatory)
d	A = temperature sensor Pt100 B = temperature sensor Pt1000 D = without temperature sensor
fff	Only if x = O or OC = three characters determining OEM / label partner (no Ex-relevance)



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	g	Only optional: one or more characters determining optional features (no Ex-relevance)
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**Conditions of Acceptability:**

1. The sensor heads of types CLS12-\*\*\*\*\* and CLS13-\*\*\*\*\* have to be protectively installed against impacts and friction.
2. Ambient temperature range of the connecting head of the sensor or the connecting cable: -20°C up to +60°C.

**Class I, Zone 0, AEx ia IIC T\* Ga**

**Class 1, Division 1, Groups A, B, C, D T\***

pH/ORP sensors, models: xPS##-abccddd+e

pH/ORP sensors, models: CPF##-abcde

Temperature sensor, models xTS1-abccc+d

Supply is provided by cable with a maximum permissible length of 50 m.

Intrinsically safe when installed as per the control drawing in the safety instructions XA03597C.

**Entity Parameters:**

$V_{max}$ (or $U_i$ )	= 17V
$I_{max}$ (or $I_i$ )	= 130mA
$P_{max}$ (or $P_i$ )	= 200mW
$C_i$	= 1nF/m – (only cable)
$L_i$	= 6μH/m – (only cable)

**Thermal Ratings:**

The sensors are suitable for use in the following ambient/ process temperature range:

Model		T3	T4	T6
pH/ORP sensor xPS				
xPS11-1	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS11-2/3	bbccddd+e:	-15°C to +135°C	-15°C to +100°C	-15°C to +50°C
xPS12-0	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS13-0	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS41-1	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS41-2/3	bbccddd+e:	-15°C to +135°C	-15°C to +100°C	-15°C to +50°C
xPS42-0	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS71-1	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS71-2/3	bbccddd+e:	-15°C to +135°C	-15°C to +100°C	-15°C to +50°C
xPS72-0	bbccddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS91-1	bbccddd+e:	--	-15°C to +110°C	-15°C to +80°C
xPS91-2/3	bbccddd+e:	-15°C to +110°C	-15°C to +100°C	-15°C to +50°C
xPS92-0	bbccddd+e:	--	-15°C to +110°C	-15°C to +80°C



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pH/ORP sensor xPF				
xPF81-LH	bcde:	--	-15°C to +100°C	-15°C to +80°C
xPF81-NN	bcde:	--	--	-15°C to +80°C
xPF82-aa	bcde:	--	--	-15°C to +80°C
Temperature Sensor				
xTS1-A	bccc+d:	-15°C to +135°C	-15°C to +130°C	-15°C to +75°C

**Type Code: (pH/ORP sensors, models xPS)**

xPS##-abbcddd+e	
x	C, O (not Ex-relevant)
##	Sensor type: pH sensor: 11, 13, 41, 71, 91 ORP sensor: 12, 42, 72, 92
a	Electrode Type 0,1 = without temperature sensor 2 = with Pt 100 3 = with Pt 1000
bb	Application range (not Ex-relevant; 2 or 3 characters)
c	Shaft length (not Ex-relevant)
ddd	Head ESA or ESS or LAB = Plug-head TOP68 version, 4-pole; without and with temperature sensor GSA or SSA or LAC = Plug-head coax version, 2-pole; only without temperature sensor
e	Optional = one or more characters determining optional features (not Ex-relevant) e.g. test or other certificates/ declarations.

**Type Code: (pH/ORP sensors, models CPF)**

CPF##-abcde		
##	Sensor type: pH sensor: 81 ORP sensor: 82	
aa	Application range – CPF81 LH = 0-14 pH, 0... 110 °C NN = 0-11 pH, 0... 80 °C	Application range – CPF82 PA = ORP, Platinum, 0... 80 °C
b	Insertion Length (not Ex-relevant)	
c	Process connection (not Ex-relevant)	
d	Equipment – CPF81 A = None preamplifier, none Pt100 B = With preamplifier, none Pt100 C = None preamplifier, with Pt100 D = With preamplifier, with Pt100	Equipment – CPF82 A = None preamplifier B = With preamplifier
e	Cable connection 8 = TOP68/ ESA	

**Type Code: (Temperature sensor)**

xTS1-abccc+d	
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x	C, O (not Ex-relevant)
a	Version: A = Single Pt100
b	Shaft length (not Ex-relevant)
ccc	Head ESA = Process Pg13.5; plug-head TOP68 version.
d	Optional = one or more characters determining optional features (no ex-relevance) e.g. test or other certificates/ declarations.

**Conditions of Acceptability:**

N/A – None.

**CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, entity - For Hazardous Locations**

**Ex ia IIC T3/T4/T6 Ga**

**Class I, Division 1, Groups A, B, C, D T3/T4/T6**

Conductive conductivity sensor, models: **CLS16B-aabbccdefff+g**.

Rated Input: 15V dc, 30mA, 130mW max.

IP 68. MWP 1200 kPa.

Intrinsically safe when installed per the control drawing in the safety instructions XA03346C.

**Entity Parameters:**

$V_{max}$ (or $U_i$ )	= 15V DC
$I_{max}$ (or $I_i$ )	= 30mA
$P_{max}$ (or $P_i$ )	= 130mW
$C_i$	$\leq 1nF/m$
$L_i$	$\leq 6\mu H/m$

**Thermal Ratings:**

The sensor is suitable for use in the following ambient temperature range:

-	Temperature class T6/T4/T3:	-20°C to +60°C
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The sensor is suitable for use in the following process temperature range:

-	Temperature class T3:	-5°C to +150°C
-	Temperature class T4:	-5°C to +115°C
-	Temperature class T6:	-5°C to +65°C

**Type Code:**

Condumax	x <b>LS16B</b> -aabbccdefff+g	
x	x = C: E+H-labeled version (not Ex-relevant) x = O: OEM/label partner-labeled version (not Ex-relevant) x = OC: OEM/label partner-labeled version (not Ex-relevant)	



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	aa	Order option ex-certification
	bb	Process connection (no ex-relevance)
	cc	Material (no ex-relevance)
	d	Cable connection (no ex-relevance)
	e	Temperature sensor A = Pt100 B = Pt1000
	fff	only if x = O, OC = three characters determining OEM/label partner (no ex-relevance)
	g	Optional = one or more characters determining optional features (no ex-relevance) e.g. test or other certificates/ declarations

**Conditions of Acceptability:**

N/A – None.

**Ex ia IIC T4/T6 Ga**

**Class I, Division 1, Groups A, B, C, D T4/T6**

**Class I, Division 2, Groups A, B, C, D T4/T6**

Inductive conductivity sensor, model \*LS50-S\*\* \* \*\*\*\*.

Supply is provided by a fixed (non-detachable) cable with a maximum permissible length of 55 m.

Intrinsically safe when installed per the control drawing in the safety instructions XA02836C.

**Entity Parameters:**

$V_{max}$ (or $U_i$ )	= 14V
$I_{max}$ (or $I_i$ )	= 100mA
$P_{max}$ (or $P_i$ )	= 350mW
$C_i$	≤ 85pF/m – (only cable)
$L_i$	< 0.25μH/m – (only cable)

**Thermal Ratings:**

The sensor is suitable for use in the following ambient/ process temperature range:

-	Temperature class T4:	-20°C to +125°C
-	Temperature class T6:	-20°C to +75°C

**Type Code:**

	xLS50-Sabccdd	
x	O, C or OC (not Ex-relevant)	
S	CSA	
a	Process connections (not Ex-relevant)	
b	Sealings/Sensor head PFA/PEEK (not Ex-relevant)	
c	Length of cable e.g. 1 = 5m	



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ddd	Only if x = O, OC (not Ex-relevant)
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**Conditions of Acceptability:**

1. The sensor may only be used in liquid media with a conductivity of >10 nS/cm.
2. The non-metallic process connector must be protected from electrostatic charging.
3. The measurement cable must be protected from electrostatic charging, when applied in Division 1 areas.
4. Metallic process connection parts have to be mounted at the mounting location electrostatically conductive (<1MΩ)

**Ex ia IIC T3/T4/T6 Ga**

**Class I, Division 1, Groups A, B, C, D T3/T4/T6**

**Class I, Division 2, Groups A, B, C, D T3/T4/T6**

Inductive conductivity sensors INDUMAX, models **xLS54-\*\*\*\*\*2\*\*\***.

Supply is provided by a fixed (non-detachable) cable with a maximum permissible length of 50 m.

Intrinsically safe when installed per the control drawing in the safety instructions XA02836C.

**Entity Parameters:**

$V_{max}$  (or  $U_i$ ) = 14V

$I_{max}$  (or  $I_i$ ) = 100mA

$P_{max}$  (or  $P_i$ ) = 140mW

$C_i$  ≤ 85pF/m – (only cable)

$L_i$  < 0.25μH/m – (only cable)

**Thermal Ratings:**

The sensor is suitable for use in the following ambient/ process temperature range:

- Temperature class T3: -10°C to +125°C (150°C for max. 60 min.)
- Temperature class T4: -10°C to +105°C
- Temperature class T6: -10°C to +55°C

**Type Code:**

	xLS54-abbcd2eee
x	O, C or OC (not Ex relevant)
a	Order option Ex certification (not Ex relevant)
bbb	Process connections (not Ex relevant)
c	Additional equipment (not Ex relevant)
d	Cable connection length, 1 = 5m; 2 = 10m; 3 = 20m; 4 = nm (max. 50m)
2	Temperature sensor Pt1000
eee	Only if x = O, OC (not Ex relevant)



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**Conditions of Acceptability:**

1. The sensor may only be used in liquid media with a conductivity of >10 nS/cm.
2. Metallic process connection parts have to be mounted at the mounting location electrostatically conductive (<1MΩ).
3. The manufacturer's instruction regarding the permissible process conditions have to be adhered to.
4. Ambient temperature range of the connecting head of the sensor or the connecting cable: -20°C up to +60°C.

**Ex ia IIC T6/T4/T3/T2 Ga** (Sensor type xLS13-\*\*\*\*\*)

**Ex ia IIC T6/T4/T3 Ga** (All other types)

**Class I, Division 1, Groups A, B, C, D T6/T4/T3/T2** (Sensor type CLS13-\*\*\*\*\*)

**Class I, Division 1, Groups A, B, C, D T6/T4/T3** (All other types)

Conducted conductivity sensors, models: **xLS##-abbcfff+g**.

Supply is provided by cable with a maximum permissible length of 50 m.

Intrinsically safe when installed per the control drawing in the safety instructions XA03346C.

**Entity Parameters:**

CLS12 or CLS13: Terminals

CLS15, CLS16, CLS16B or CLS21: Connector or permanent connected cable:

$V_{max}$ (or $U_j$ )	= 15V DC
$I_{max}$ (or $I_j$ )	= 30mA
$P_{max}$ (or $P_j$ )	= 130mW
$C_i$	= 1nF/m – (only cable)
$L_i$	= 6μH/m – (only cable)

The input circuit has to be considered to be grounded when connected to the sensor.

**Thermal Ratings:**

The sensors are suitable for use in the following ambient/ process temperature range:

Model			T2	T3	T4	T6
xLS12	-abbc	dfff+g:	--	-20°C to +160°C	-20°C to +125°C	-20°C to +75°C
xLS13	-abbc	dfff+g:	-20°C to +250°C	-20°C to +190°C	-20°C to +125°C	-20°C to +75°C
xLS15	-abbc	dfff+g:	--	-20°C to +140°C	-20°C to +115°C	-20°C to +65°C
xLS21	-abbc	Afff+g:	--	-20°C to +135°C	-20°C to +115°C	-20°C to +65°C
xLS21	-abbc	Dfff+g:	--	-20°C to +135°C	-20°C to +130°C	-20°C to +80°C

**Type Code:**

xLS##-abbcfff+g
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x	C, O or OC (not Ex relevant)
##	Sensor type: 12, 13, 15, 21
a	A = Measuring Range, Cell Constant k=0.01/cm B = Measuring Range, Cell Constant k = 0.1/cm C = Measuring Range, Cell Constant k=1/cm L = Cleaning Procedure PWIS free: xLS15-L* = PWIS free version of xLS15-B*, xLS21-L* = PWIS free version of xLS21-C* (no Ex-relevance)
bb	Process connections (not Ex relevant)
c	Cable connection (not Ex relevant) 1,4,5 = without fixed cable 2 = with 5m fixed cable 3 = with 10 m fixed cable 9 = Special version (in accordance to ex regulatory)
d	A = temperature sensor Pt100 B = temperature sensor Pt1000 D = without temperature sensor
fff	Only if x = O or OC = three characters determining OEM / label partner (no Ex-relevance)
g	Only optional: one or more characters determining optional features (no Ex-relevance)

**Conditions of Acceptability:**

1. The sensor heads of types CLS12-\*\*\*\*\* and CLS13-\*\*\*\*\* have to be protectively installed against impacts and friction.
2. Ambient temperature range of the connecting head of the sensor or the connecting cable: -20°C up to +60°C.

**Ex ia IIC T\* Ga**

**Class 1, Division 1, Groups A, B, C, D T\***

pH/ORP sensors, models: xPS##-abcbdd+e

pH/ORP sensors, models: CPF##-aabcde

Temperature sensor, models xTS1-abccc+d

Supply is provided by cable with a maximum permissible length of 50 m.

Intrinsically safe when installed as per the control drawing in the safety instructions XA03597C.

**Entity Parameters:**

V <sub>max</sub> (or U <sub>i</sub> )	= 17V
I <sub>max</sub> (or I <sub>i</sub> )	= 130mA
P <sub>max</sub> (or P <sub>i</sub> )	= 200mW
C <sub>i</sub>	= 1nF/m – (only cable)
L <sub>i</sub>	= 6μH/m – (only cable)

**Thermal Ratings:**



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The sensors are suitable for use in the following ambient/ process temperature range:

Model		T3	T4	T6
pH/ORP sensor xPS				
xPS11-1	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS11-2/3	bbcddd+e:	-15°C to +135°C	-15°C to +100°C	-15°C to +50°C
xPS12-0	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS13-0	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS41-1	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS41-2/3	bbcddd+e:	-15°C to +135°C	-15°C to +100°C	-15°C to +50°C
xPS42-0	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS71-1	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS71-2/3	bbcddd+e:	-15°C to +135°C	-15°C to +100°C	-15°C to +50°C
xPS72-0	bbcddd+e:	-15°C to +135°C	-15°C to +130°C	-15°C to +80°C
xPS91-1	bbcddd+e:	--	-15°C to +110°C	-15°C to +80°C
xPS91-2/3	bbcddd+e:	-15°C to +110°C	-15°C to +100°C	-15°C to +50°C
xPS92-0	bbcddd+e:	--	-15°C to +110°C	-15°C to +80°C
pH/ORP sensor xPF				
xPF81-LH	bcde:	--	-15°C to +100°C	-15°C to +80°C
xPF81-NN	bcde:	--	--	-15°C to +80°C
xPF82-aa	bcde:	--	--	-15°C to +80°C
Temperature Sensor				
xTS1-A	bccc+d:	-15°C to +135°C	-15°C to +130°C	-15°C to +75°C

**Type Code: (pH/ORP sensors, models xPS)**

xPS##-abcddd+e	
x	C, O (not Ex-relevant)
##	Sensor type: pH sensor: 11, 13, 41, 71, 91 ORP sensor: 12, 42, 72, 92
a	Electrode Type 0,1 = without temperature sensor 2 = with Pt 100 3 = with Pt 1000
bb	Application range (not Ex-relevant; 2 or 3 characters)
c	Shaft length (not Ex-relevant)
ddd	Head ESA or ESS or LAB = Plug-head TOP68 version, 4-pole; without and with temperature sensor GSA or SSA or LAC = Plug-head coax version, 2-pole; only without temperature sensor
e	Optional = one or more characters determining optional features (not Ex-relevant) e.g. test or other certificates/ declarations.

**Type Code: (pH/ORP sensors, models CPF)**

CPF##-abcde
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##	Sensor type: pH sensor: 81 ORP sensor: 82	
aa	Application range – CPF81 LH = 0-14 pH, 0... 110 °C NN = 0-11 pH, 0... 80 °C	Application range – CPF82 PA = ORP, Platinum, 0... 80 °C
b	Insertion Length (not Ex-relevant)	
c	Process connection (not Ex-relevant)	
d	Equipment – CPF81 A = None preamplifier, none Pt100 B = With preamplifier, none Pt100 C = None preamplifier, with Pt100 D = With preamplifier, with Pt100	Equipment – CPF82 A = None preamplifier B = With preamplifier
e	Cable connection 8 = TOP68/ ESA	

**Type Code: (Temperature sensor)**

	xTSI-abccc+d
x	C, O (not Ex-relevant)
a	Version: A = Single Pt100
b	Shaft length (not Ex-relevant)
ccc	Head ESA = Process Pg13.5; plug-head TOP68 version.
d	Optional = one or more characters determining optional features (no ex-relevance) e.g. test or other certificates/ declarations.

**Conditions of Acceptability:**

N/A – None.

**APPLICABLE REQUIREMENTS**

Standards Used	Description
CSA C22.2 No. 61010-1-12, UPD1:2015, UPD2:2016, AMD1:2018, UPD3:2023	Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements - Third Edition; Update No. 1: July 2015; Update No. 2: April 2016; Update No. 3: June 2023
CAN/CSA C22.2 No. 60079-0:19	Explosive atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:14 - Second Edition	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
UL 61010-1:2012 - Third Edition - Including revisions through June 6, 2023	Electrical Equipment For Measurement, Control, and Laboratory Use; Part 1: General Requirements



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Standards Used	Description
ANSI/UL 60079-0:2020 - Seventh Edition - Including revisions through July 19, 2024	Explosive Atmospheres – Part 0: Equipment – General Requirements
ANSI/UL 60079-11:2013 - Sixth Edition	Standard for Safety Explosive Atmospheres - Part 11: Equipment Protection By Intrinsic Safety 'I'

### Markings

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual 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 indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following markings are directly lasered onto the products on the outer electrode (topside of the sensor).

- Manufacturer's name: "Endress + Hauser Conducta GmbH Co.& KG", 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.
- Manufacturing date, or serial number, traceable to year and month of manufacture.
- The CSA Mark, with or without the "C" and "US" indicators, as shown on the Certificate of Conformity.
- The designation "CSA24CA80219586X".
- Hazardous Location designation: As specified in the PRODUCTS section, above. The word "Class" may be abbreviated "CL", the word "Division" may be abbreviated "DIV", and the word "Groups" may be abbreviated "GRP" or "GP".
- Method of Protection markings (Ex – markings): As specified in the PRODUCTS section, above. The word "Class" may be abbreviated "CL", the word "Zone" may be abbreviated "ZN".
- Temperature code: As specified in the PRODUCTS section, above.
- The following words:
  - For Canada: "INTRINSICALLY SAFE" and "SECURITE INTRINSEQUE", or "IS" or "I.S." or the symbol "Ex ia"
  - "Install per drawing XXXXX." (As specified in the PRODUCTS section, above.)



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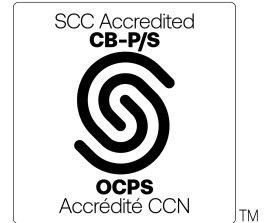
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Notes:

Products certified under Class(es) C225804, C225884 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)





## *Supplement to Certificate of Compliance*

**Certificate:** 80219586

**Master Contract:** 205557

*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>
80262293	2026-03-16	Update to Report 80219586 to include analog sensors from CSA Report 1718339.
80219586	2024-12-19	Original cCSAus certification of intrinsically safe Sensor Type CLS16B Series based on data acceptance of TUV 15ATEX7778X.