



## CS1543D Digital pH Sensor

for Chemical Process  
 acid, alkali, chemical process apply

Order Number CS1543D5T

Specification	
pH Range	0 - 14
Zero Offset	7.00 ± 0.25
Resolution	0.01pH
Temperature Range	-10 ~ 105 °C
Pressure	0 -6 bar

Shell Material	Glass
Membrane Resistance	< 800 MΩ
Reference System	Ag/AgCl, KCl, SNEC, Double Junctions
Liquid Junction	Porous ceramic

Thread Cap	PG13.5 PP+POM
Electrode dimensions	Ø12x120mm
Cable Length	5m
Connector	Terminals

Output	RS485 Modbus RTU
Power Supply	DC 12V
IP rated	IP68

### CS1543D Sensor Wet End Materials

PP, Glass, Ceramics, Silver, Silver Chloride,  
 Potassium Chloride solution, CMC gel,



(optional accessory)

### twinno 200 Field Communicator

With twinno200 Field Communicator, you can set up and calibrate the digital sensor efficiently in field.



## CS1778D pH sensor

for flue gas desulfurization process

**Order number** CS1778D1B  
**former order number** -

### Specifications

pH range 0 - 12  
zero point (pH)  $7.00 \pm 0.25$   
temperature range 0 - 90 °C  
Pressure 0 -20 bar

temperature probe Pt1000/ Pt100/NTC10K, Optional

shaft material PPS  
membrane glass W28  
membrane resistance < 800 MΩ

reference system SNEX Ag/ AgCl/ KCl  
reference diaphragm SNEX  
bridge electrolyte -  
junction Double

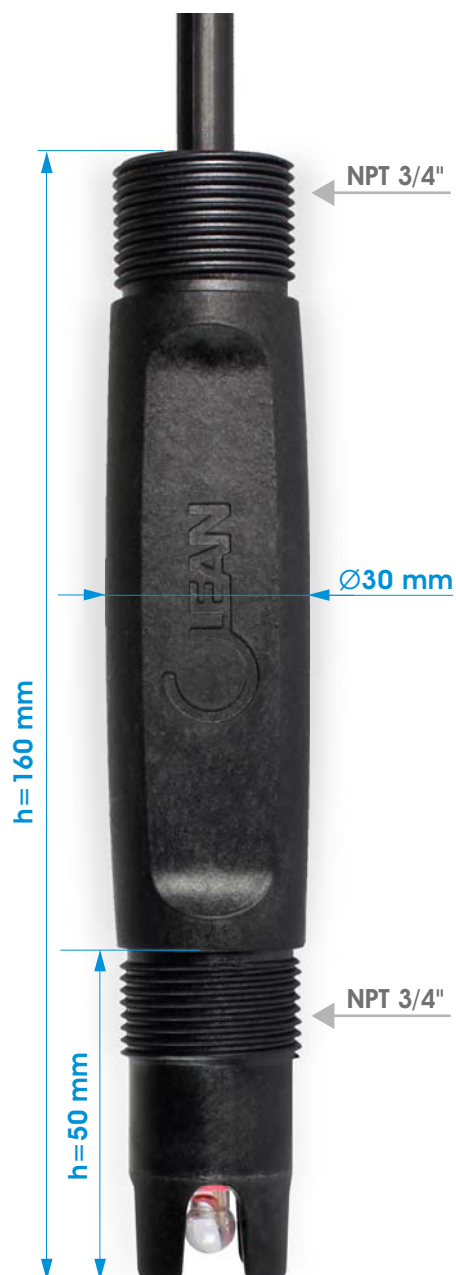
Shell Material PP  
Thread NPT 3/4"  
Cable Length 5m  
Connector Terminals  
Output RS485 Modbus RTU  
Power input DC 12V  
IP rated IP68

### Wiring Instructions

Sensor End	Function Descriptions
Green line	RS-485 communication T/R+ (A)
White line	RS-485 communication T/R- (B)
Red line	9~12VDC power supply
Black line	9~12VDC power supply is negative

## CS1788D pH sensor

for pure water, low ion concentration water



<b>Order number</b>	CS1788D1B
former order number	-

### Specifications

pH range	0 - 12
zero point (pH)	7.00 ± 0.25
temperature range	0 - 90 °C
Pressure	0 - 20 bar

temperature probe	PT1000/ PT100/NTC10K, Optional
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shaft material	PPS
membrane glass	W28
membrane resistance	< 500 MΩ

reference system	SNEX Ag/ AgCl/ KCl
reference diaphragm	2 porous ceramic
bridge electrolyte	3.3M KCl gel
junction	Double

Shell Material	PP
Thread	NPT 3/4"
Cable Length	5m
Connector	Terminals
Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68

### Wiring Instructions

Sensor End	Function Descriptions
Green line	RS-485 communication T/R+ (A)
White line	RS-485 communication T/R- (B)
Red line	9~12VDC power supply
Black line	9~12VDC power supply is negative



## CS1753D pH sensor for Chemical Process

Order number	CS1753D1B
former order number	-

Specifications	
pH range	0 - 14
zero point (pH)	7.00 ± 0.25
temperature range	0 - 90 °C
Pressure	0 -6 bar

temperature probe	Pt1000/ Pt100/NTC10K, Optional
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shaft material	PP
membrane glass	B11
membrane resistance	< 600 MΩ

reference system	SNEX Ag/ AgCl/ KCl
reference diaphragm	2 porous ceramic
bridge electrolyte	3.3M KCl gel
junction	Double

Thread	NPT 3/4"
Cable Length	5m
Connector	Terminals

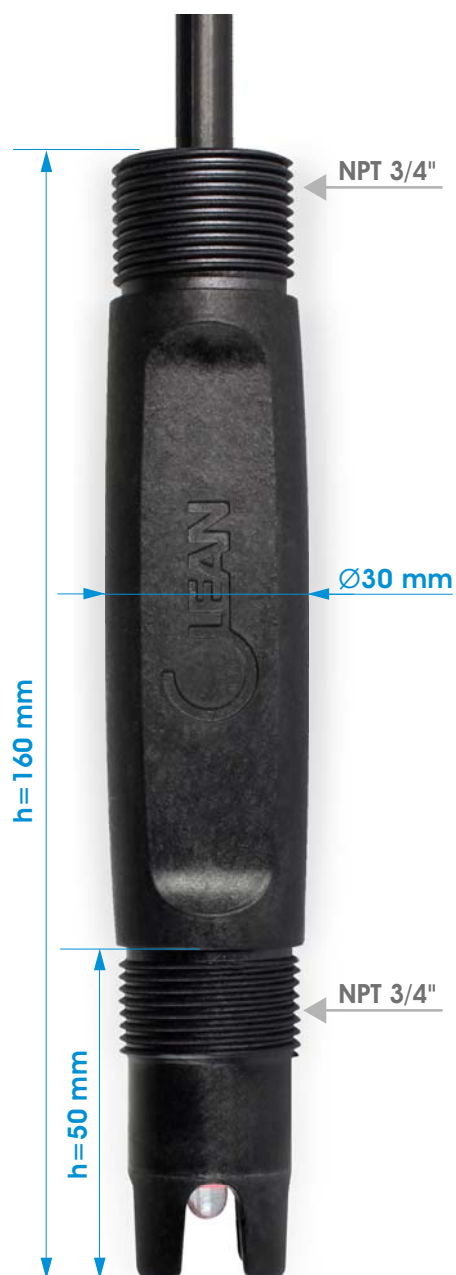
Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68



(optional accessory)

### twinno 200 Field Communicator

With twinno200 Field Communicator, you can set up and calibrate the digital sensor efficiently in field.



## CS1768D pH sensor

High pressure application from  
-10bar ~ +20bar

Order number	CS1768D1B
former order number	-

<b>Specifications</b>	
pH range	0 - 14
zero point (pH)	7.00 ± 0.25
temperature range	0 - 80 °C
Pressure	-10 ~ +20 bar (@50°C)

temperature probe	Pt1000/ Pt100/NTC10K, Optional
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shaft material	PP
membrane glass	B11
membrane resistance	< 500 MΩ

reference system	SNEX Ag/ AgCl/ KCl
reference diaphragm	2 porous ceramic
bridge electrolyte	3.3M KCl gel
junction	Double

Thread	NPT 3/4"
Cable Length	5m
Connector	Terminals

Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68



(optional accessory)

### twinno 200 Field Communicator

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## CS2768D ORP sensor

Order number CS2768D1B  
former order number -

### Specifications

ORP range	-2000mV-2000mV
Resolution	1mV
Accuracy	1mV
temperature range	0 - 80 °C
Pressure	0 ~ -10 bar

reference system	SNEX Ag/ AgCl/ KCl
reference diaphragm	SNEX
bridge electrolyte	-
junction	Double

Shell Material	PP
Electrode	Glass, Platinum

Thread	NPT 3/4"
Cable Length	5m
Connector	Terminals

Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68



(optional accessory)

### twinno 200 Field Communicator

With twinno200 Field Communicator, you can set up and calibrate the digital sensor efficiently in field.

# Customize sensors to meet your needs

## Process Sensors

P1-2 related instruments  
Details see our website

5 Series Digital Sensors

### 5 Series

PG13.5 thread  
5m cable /BNC  
Protection Level IP68  
Temperature optional

### 7 Series

NPT 3/4" thread  
PP/PPS Shell  
5m cable /BNC  
Protection Level IP68  
Temperature optional



## pH /ORP Sensor



Digital

1	CS1528 for HF containing media	CS1528D
2	CS1529 for Seawater & Seawater related	CS1529D
3	CS1543 for Strong acid/ alkali and chemical process	CS1543D
4	CS1568 <b>SNEX</b> , for Sludge, Viscous Fluids, Paint, Sugar Process	
5	CS1597 Non- aqueous media(organic phase)	CS1597D
6	CS1768 <b>SNEX</b> , for high pressure pipeline	CS1768D
7	CS1778 <b>SNEX</b> , for flue gas desulfurization process	CS1778D
8	CS1788 <b>SNEX</b> , for pure Water/ Low ion concentration water	CS1788D
9	CS1753 for Chemical Process	CS1753D
10	CS1540 for tough environment use	
11	CS1668 for Sludge, Viscous Fluids, Hydrogen sulfide media	
12	CS1628 for HF concentration <1000ppm	
13	CS1728 for HF concentration <1000ppm	
14	CS1733 for industrial waste water, environmental protection sewage	
15	CS1637 for HF concentration > 1000ppm	
16	CS1737 for HF concentration > 1000ppm	
17	CS1549 for high temperature	
18	CS2543 ORP, for general use	CS2543D
19	CS2733 ORP, for general use	CS2733D
20	CS2768 ORP, <b>SNEX</b> , for complex industrial environment	CS2768D

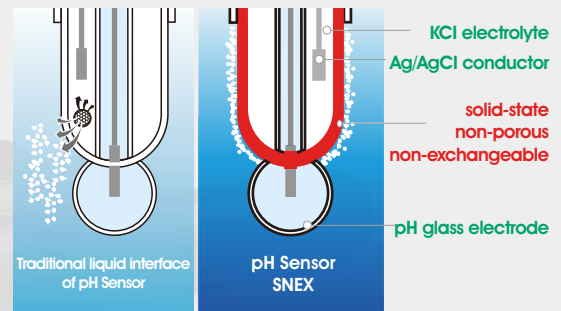
## Revolutionary "SNEX solid-state, non-exchange reference electrode system": break the life span limit of the traditional porous-liquid-junction pH sensors.

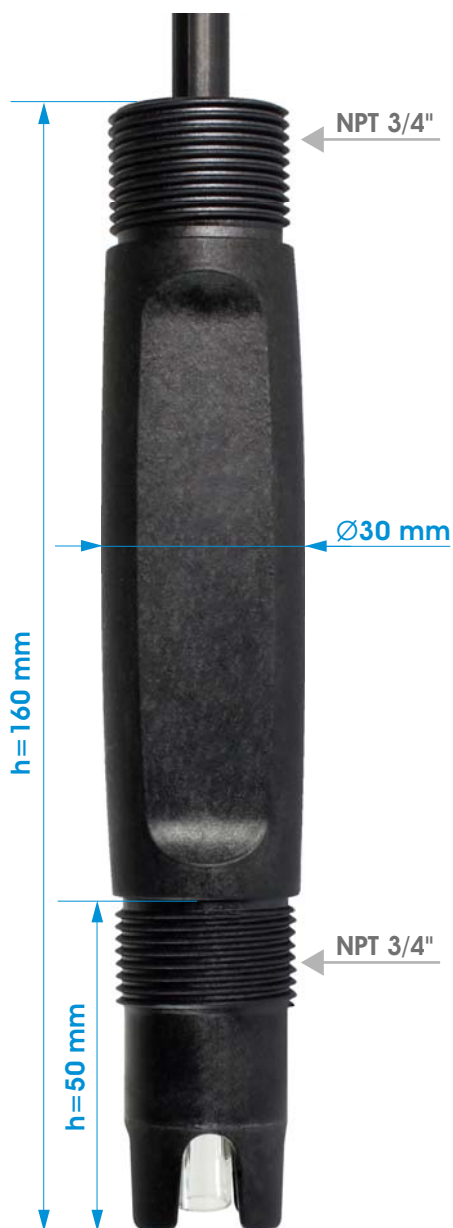
**Application:** Sludge, Viscous Fluids Protein, hydrogen sulfide, Cold Low Ionic Water Silicates, Chromates, Cyanide, Sea water, Brine, Mining, Petrochemical, liquefied natural gas.

SNEX, solid-state, non-exchange reference electrode system: it uses a highly stable non-porous polymeric interface in place of the traditional porous liquid junction. The electrochemical active reference area is the whole of the outside surface of the electrode, this super large contact area means that the electrode is supremely resistant to coatings. Poisoning effects are eliminated because the polymeric reference material is ionicly conductive, but is not porous, consequently electrolyte and process fluids are not exchanged.

The advanced solid-state nature of SNEX reference electrodes mean they remain extremely accurate and reliable across a wide range of conditions, including: Temperature: 0 to 90°C, Pressure: 0 to 20 bar.

SNEX: stable and longer life span, lower calibration and maintenance cost.





## CS3700D Digital Conductivity Sensor

Industrial water, Surface Water,  
Tap Water, General Purpose

Order Number CS3700D5T

### Specification

#### Conductivity

Measuring Range	1.0 $\mu$ S/cm ~ 20.00 mS/cm
Resolution	0.1 $\mu$ S/cm ~ 0.01 mS/cm
Cell Constant	K=1.0
Reference Temperature	15.0 ~ 35.0 °C
Temperature Coefficient	0.00 % ~ 10.00 %

#### TDS

Measuring Range	1.0 ppm ~ 10.00 ppt
Resolution	0.1 ppm ~ 0.01 ppt
TDS factor	0.40 ~ 1.0

#### Salinity

Measuring Range	1.0 mg/L ~ 10.0 g/L
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#### Temperature

Measuring Range	-10.0 ~ 70.0 °C
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Pressure 0 ~ -8 bar

Shell Material	PP
Electrode	Glass, Platinum
Cell Constant	2-Electrode, K=1.0 cm <sup>-1</sup>

Thread NPT 3/4"

Cable Length 5m  
Connector Terminals

Output RS485 Modbus RTU  
Power input DC 12V  
IP rated IP68



(optional accessory)

### twinno 200 Field Communicator

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## CS3740D Digital Conductivity Sensor

Suitable for: rivers, water, soil,  
Boiler water, cement, electroplating, food

**Order Number** CS3740D5T

### Specification

**Conductivity** 1.0  $\mu\text{S}/\text{cm}$  ~ 500.0  $\text{mS}/\text{cm}$

Resolution 0.1  $\mu\text{S}/\text{cm}$  ~ 0.1  $\text{mS}/\text{cm}$

Temperature coefficient 0.00 % ~ 10.00 %

**TDS** 1.0 ppm ~ 250.0 ppt

Resolution 0.1 ppm ~ 0.1 ppt

TDS factor 0.40 ~ 1.0

**Salinity** 0.0 ~ 500.0 g/L

Resolution 0.1 g/L

Accuracy  $\pm 0.5\%$  FS

Salinity factor 0.2 ~ 0.8 Factory default(0.60)

Electrode 4 Electrode Graphite

### Temperature

Measuring Range -10.0 ~ 70.0 °C

Pressure 0 ~ -8 bar

Shell Material PP

Thread NPT 3/4"

Cable Length 5m

Connector Terminals

Output RS485 Modbus RTU

Power input DC 12V

IP rated IP68

### Wiring Instructions

Sensor End	Function Descriptions
Green line	RS-485 communication T/R+ (A)
White line	RS-485 communication T/R- (B)
Red line	9~12VDC power supply
Black line	9~12VDC power supply is negative



## CS4751D Digital Dissolved oxygen sensor

<b>Order Number</b>	CS4751D5T
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<b>Specification</b>	
Range	0.0-200.0% , 0.00-20.00 mg/L
Resolution	0.1% , 0.01 mg/L
Accuracy	0.0-40.0 ppt
Salinity Compensation	0.0~50.0 ppt
Temperature Compensation	0.0-50.0 C
Pressure Compensation	600-2000 mBar
Temperature Range	-10.0-110.0 C
Resolution	0.1 C
Accuracy	0.3 C
Working Temperature	0~60C
Response time	< 60 s (95%,25 C)
Stabilizing time	15 - 20 min
Zero drift	<0.5%
Min Flow	> 0.03 m/s
residual current	< 2% in the air

Shell Material	PP
Thread	NPT 3/4"
Cable Length	5m
Connector	Terminals
Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68

<b>Wiring Instructions</b>	
<b>Sensor End</b>	<b>Function Descriptions</b>
Green line	RS-485 communication T/R+ (A)
White line	RS-485 communication T/R- (B)
Red line	9~12VDC power supply
Black line	9~12VDC power supply is negative



(optional accessory)

### twino 200 Field Communicator

With twino200 Field Communicator, you can set up and calibrate the digital sensor efficiently in field.



## CS5530D Digital Free Chlorine Sensor

Order number CS5530D5T

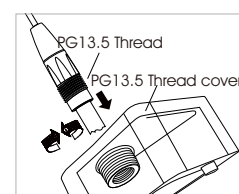
### Specification

Principle	Potentiostatic
Range	0 - 2.000 mg/L, 0 - 20.00 mg/L
Resolution	0.001 mg/L, 0.01 mg/L
Temperature range	0 - 70 °C
Pressure	0 - 6 bar
Optimum Flow Rate	25-100 L/h

Shell material	Glass+POM
Thread Cap	PG13.5
Electrode dimensions	Ø12x120mm
Cable length	5m
Connector	Terminals

Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68

### A580L Flow cell (optional accessory)



Material:	clear Polycarbonate
Inlet:	PG13.5 or 3/4" NPT fitting
Inlet and outlet:	1/4" NPT
Connection tubing:	10x6.5 mm tubing
Temperature:	0-50 °C
Pressure:	0-3bar
Dimensions:	83(L)X69(W) x 230(H) mm



## CS6530D Digital Dissolved Ozone Sensor

**Order number** CS6530D5T

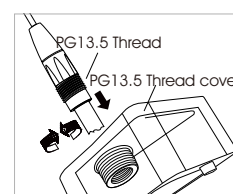
### Specification

Principle	Potentiostatic
Range	0 - 2.000 mg/L, 0 - 20.00 mg/L
Resolution	0.001 mg/L, 0.01 mg/L
Temperature range	0 - 70 °C
Pressure	0 - 6 bar
Optimum Flow Rate	25-100 L/h

Shell material	Glass+POM
Thread Cap	PG13.5
Electrode dimensions	Ø12x120mm
Cable length	5m
Connector	Terminals

Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68

### A580L Flow cell (optional accessory)



Material: clear Polycarbonate

Inlet: PG13.5 or 3/4" NPT fitting

Inlet and outlet: 1/4" NPT

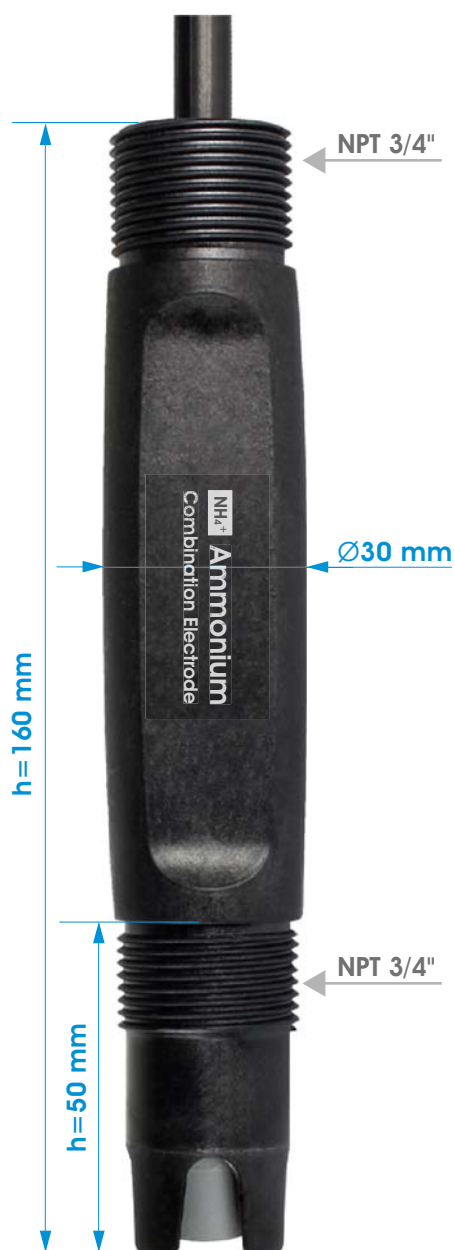
Connection tubing: 10x6.5 mm tubing

Temperature: 0-50 °C

Pressure: 0-3bar

Dimensions: 83(L) x 69(W) x 230(H) mm

## CS6714D Digital Ammonium Sensor



<b>Order Number</b>	CS6714D5T
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<b>Specification</b>	
Slope	55±4 mV between 10-100 ppm @ 25°C
Reproducibility	± 2%
Interferences	K <sup>+</sup>
Temperature Range	0 to 40° C (if calibrated at that temperature)
Pressure Range	0 to 2 bar
Response Time	95% response in 30 seconds
Storage	Long term, store dry Short term, store in dilute ammonium standard
Concentration Range	0.1 ppm to 1000 ppm
pH Range	4 to 10 pH
Resistance	100 megaohms
Care, Maintenance & Cleaning	Treat with distilled water followed by ammonium standard

Shell Material	PP
Thread	NPT 3/4"
Cable Length	5m
Connector	Terminals
Output	RS485 Modbus RTU
Power input	DC 12V
IP rated	IP68

### Wiring Instructions

Sensor End	Function Descriptions
Green line	RS-485 communication T/R+ (A)
White line	RS-485 communication T/R- (B)
Red line	9~12VDC power supply
Black line	9~12VDC power supply is negative

