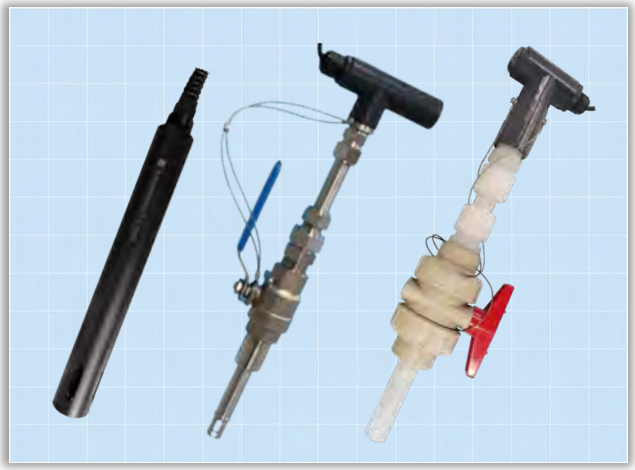
CROSS SMART SENSOR

PH7 Smart pH Sensor

ELECTRO-CHEMICAL, DIGITAL TECHNOLOGY, OPTIMIZED MEASURES



FEATURES & BENEFITS

- ❑ Robust pH & Temperature sensor series.
- ❑ Digital sensor with reliable RS485 communication.
- ❑ Plug and play with GDC series terminals or computers with Delta-Phase View™ software.
- ❑ Calibration history data stored in sensor, Easy to recalibrate.
- ❑ Lightning and surge protection for worry-free power.
- ❑ Optional Self-Diagnosis function.
- ❑ Optional Analog sensor for two-wire application.
- ❑ Standard rebuildable sensor using cartridge electrode.
- ❑ Optional disposable sensor for special applications.

APPLICATIONS

- ❑ Water and Waste water treatment

  Municipal or Industrial sourcing and discharging

  Drinking water, High purity water etc.
- ❑ Environment monitoring

  Surface water including seawater or ground water
- ❑ Typical Industrial process control
  - Cooling Tower
  - Steam condensation
  - De-sulfurization system
  - Neutralization

PRINCIPLE OF ELECTROCHEMICAL

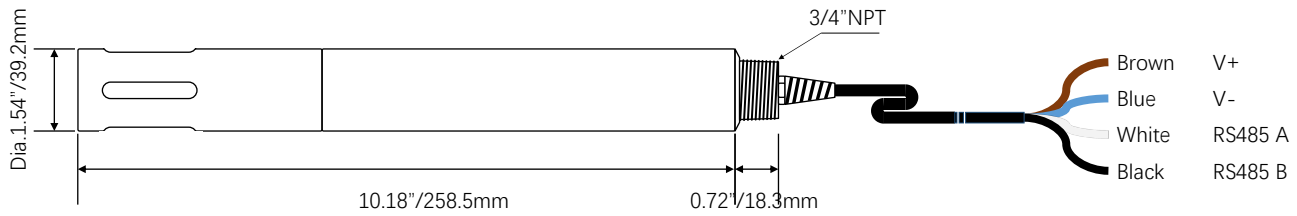
A pH meter measures the acidity or alkalinity of a solution. Acidic solutions have positively charged hydrogen ions, and alkaline solutions have negatively charged hydroxide ions. pH stands for the power of hydrogen, and it is calculated based on the number of hydrogen ions in a liquid. Because these hydrogen ions create a positive charge, an acidic solution with many hydrogen ions can easily conduct an electric current. pH meters measure that ability. The working principle behind pH meters is potentiometry. This is the measurement of a solution's electric potential (voltage). Remember how acidic solutions can efficiently conduct an electric current because of the positive hydrogen ions? The ability of a solution to conduct a current is called electric potential. Electric potential is key in understanding pH meter principles and applications. A pH meter measures electric potential using 2

CROSS SMART SENSOR

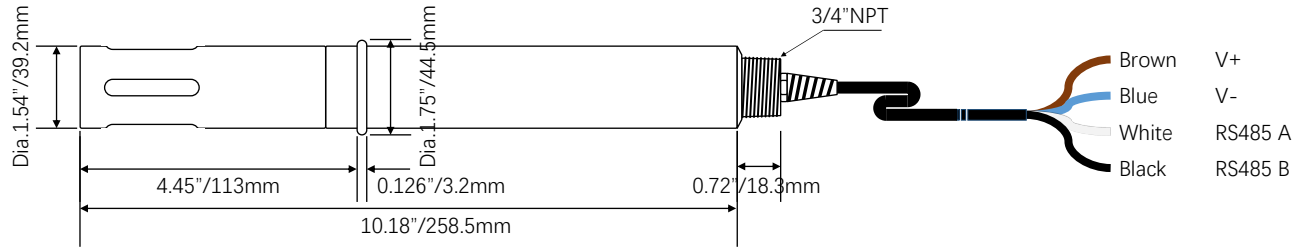
SPECIFICATIONS (CONTINUE)

Interface	RS485 Modbus RTU standard, mV signal for analog sensors
Material	Glass, PVC standard. Optional 316L SS, PP, PVDF (consult factory for others)
IP Rating	>IP68, submersible
Weight	1.9 pound (0.85kg), standard (consult factory for optional sensor configurations).
Mounting	Immersion/Insertion, Optional Insertion with Retractive ball-valve Assembly and "T" handle

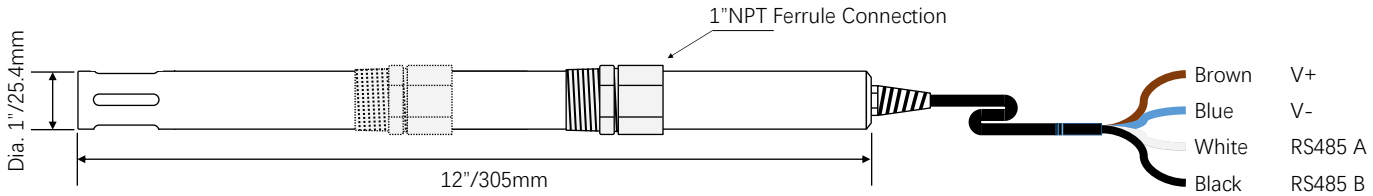
DIMENSION



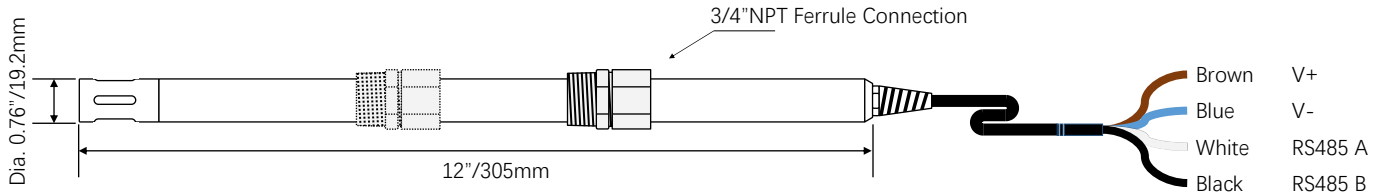
PH7 Rebuildable PVC Sensor (Standard Model)



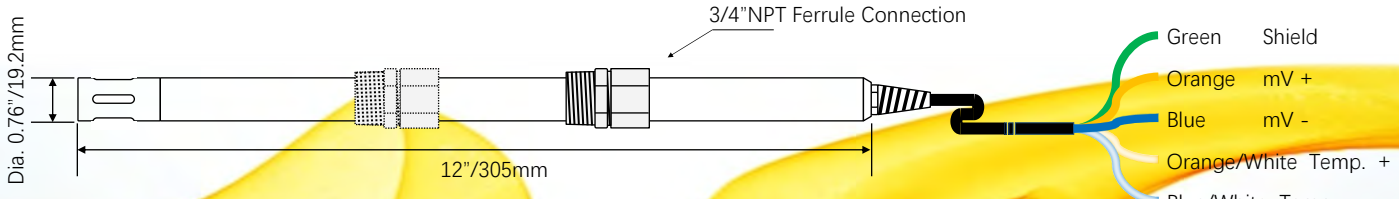
PH7-N0 Rebuildable PVC Sensor for Flow Cell installation



PH7-N1 Rebuildable SS/PP Sensor for Insertion installation



PH7D-N2 Disposable SS/PP Sensor for Insertion installation

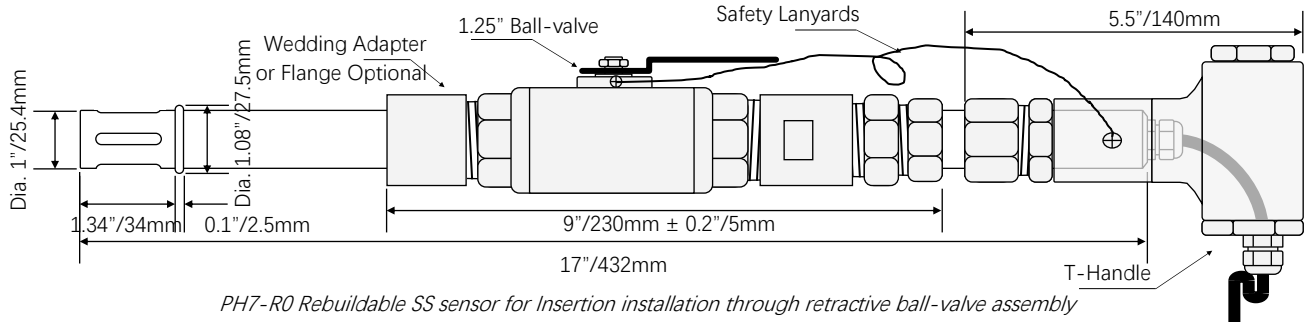


PH7AD-N2 Analog Disposable SS/PP Sensor for Insertion installation

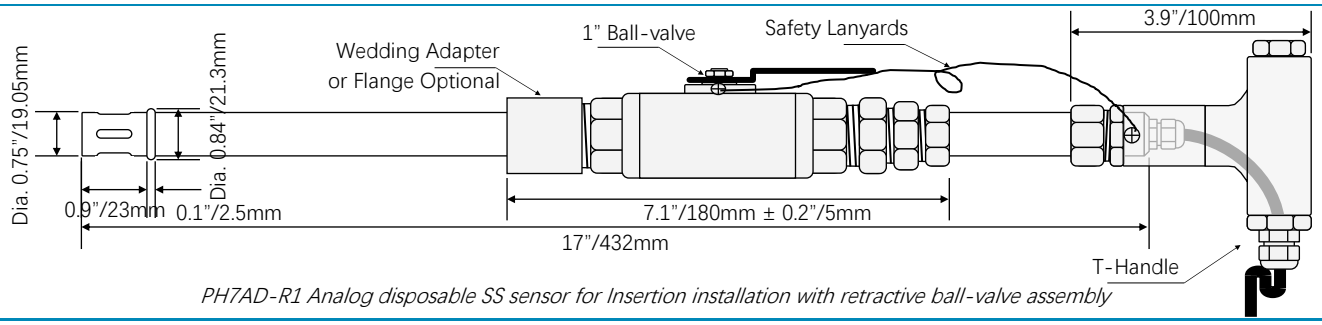
Delta Phase
WATER GAS MONITORING

CROSS SMART SENSOR

DIMENSION



PH7-R0 Rebuildable SS sensor for Insertion installation through retractive ball-valve assembly



PH7AD-R1 Analog disposable SS sensor for Insertion installation with retractive ball-valve assembly

ORDER CODE

PH7 Smart pH Sensor

-	Digital and Rebuildable	*A*	Analog and Rebuildable Sensor
D	Digital and Disposable Sensor	*AD*	Analog and Disposable Sensor

-	Default pH electrode	*-HT*	For High Temperature (Disposable only)
-PW	For Purity Water (Disposable only)	*-DS*	For Desulfurization Slurry (Disposable only)

Other special application contact factory

Mounting

-	3/4" NPT Back Thread for Immersion mounting of rebuildable sensors
-N0	1.5" NPT Compress Fitting for rebuildable sensors flow-cell mounting
-N1	1" NPT compress Fitting for rebuildable sensors inserting installation
-N2	3/4" NPT Compress Fitting for disposable sensors (Immersion/Insertion Mounting)
-R0	Rebuildable sensors inserting with 1-1/4" NPT Retractive Ball-valve Assembly
-R1	Disposable sensor inserting with 1" NPT Retractive Ball-valve Assembly

Material of Housing

-	Standard PVC	*-SS*	316L Stainless Steel
-PP	Polypropylene		

Other housing material contact factory

Length of Housing

-	Standard
X17	17" (Min. length for Retractive Ball-valve Assembly Mounting)
X21	21"

Other length of housing please contact factory

Length of Cable

-C10	10 ft, approx. 3 m
-C20	20 ft, approx. 6 m
-C30	30 ft, approx. 9 m

Other length of cable please contact factory

PH7 D -HT -R1 -PP X17 -C30

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