

Combination pH/ORP Sensors



**Connects with
most
pH Analyzers**

Features & Benefits

Potence Controls PC Series combination pH/ORP Sensors are designed for special applications. They can be mounted in a Flow through Tee/Chamber or Immersed in Tanks or Vessels.

The reference cell is Double-Junction Porous Teflon design and comes with a built-in solution ground owing to which the performance of this sensor is enhanced. The body is made from chemically-resistant Ryton which is suitable for some of the most harsh applications

The sensors are rated for 0-105°C @100 psig and come with a standard 15 feet cable.

PC Series Sensors Different Configuration:

- Dome shaped
- Flat Glass
- HF Resistant
- Flat Glass with HF resistant
- High Purity
- Detachable Cable.

The Sensors also come with a choice of temperature Elements like Pt100 / Pt1000 or Pt100 and Pt1000 together, other elements available on request. These sensors can be connected to most of the different brands of Transmitters / Controllers

General Specifications

pH Sensor

Wetted Material : Ryton Body (glass Filled),
glass process electrode
Measuring Range : 0-14 pH
Temp. Element : Pt100/Pt1000
Temp. Limit : 0-105°C
Pressure Limit : 0-100psig @100°C
(0-6.9bar @100°C)
Max. Flow Range : 0-6.6 ft/sec (0-2 m/sec)
Accuracy : +/- 0.2 pH
Sensor Cable : Integral coaxial cable (plus
two conductors for
temperature compensator
options); std 15ft./ 4.5m long;
with stripped and tinned
wires

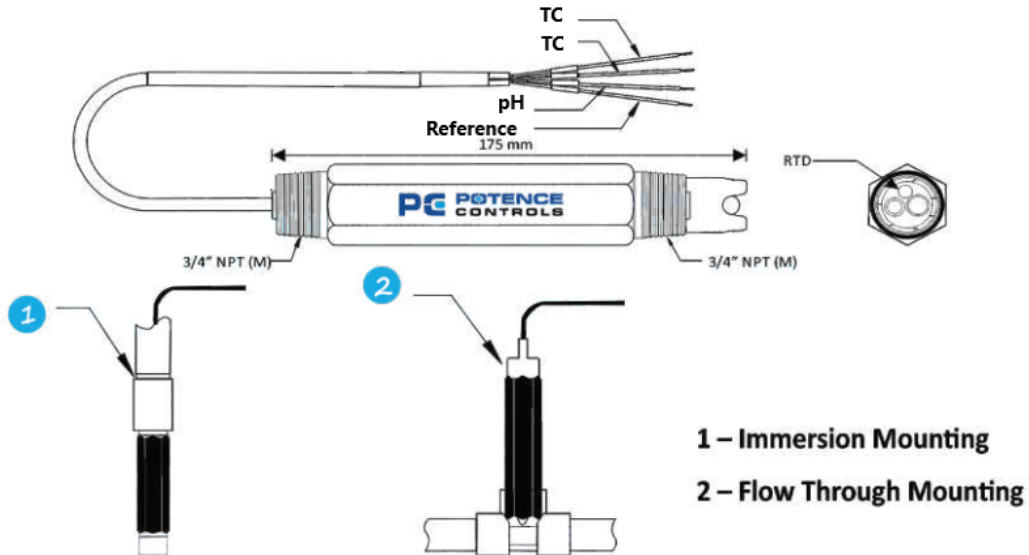
ORP Sensor

Wetted Material : Ryton Body (glass Filled),
Glass with Platinum process
electrode
Measuring Range : - 2000mV to +2000mV
Temp. Element : N.A
Temp. Limit : N.A
Pressure Limit : 0-100psig @100°C
(0-6.9bar @100°C)
Max. Flow Range : 0-6.6 ft/sec (0-2 m/sec)
Accuracy : Limited to calibration
solution accuracy (+/- 20mV)
Sensor Cable : Integral coaxial cable (plus
two conductors for
temperature compensator
options); std 15ft./ 4.5m long;
with stripped and tinned wires

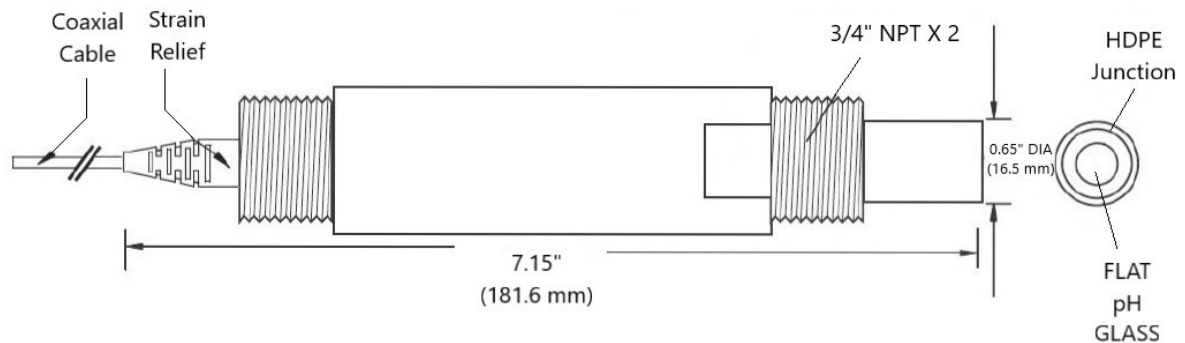
Note: The accuracy of the sensor is not the accuracy of the System and depends on the transmitter / Controller being used. The accuracy is calculated under standard reference conditions

Dimensional Drawing

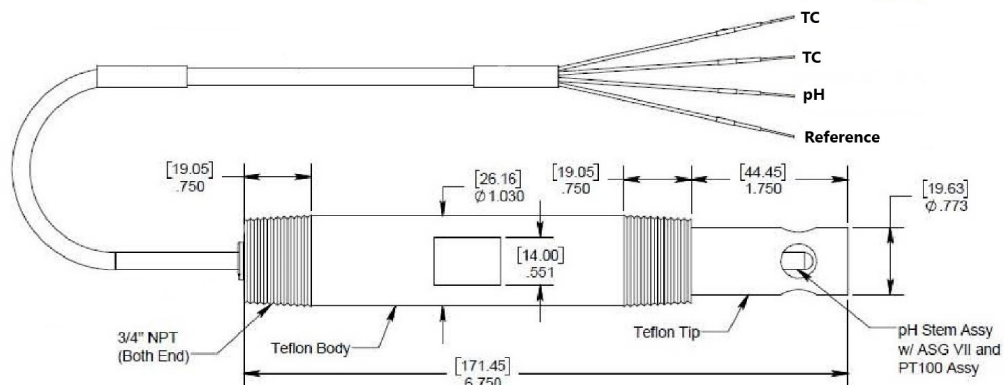
Dome Shaped Glass Ryton Body pH Sensor



Flat Glass Ryton Body pH Sensor



Dome Shaped Glass Teflon Body pH Sensor



Note: Above image is for indication purpose only, terminal leads colour & design may vary as per model selected

Ordering Information

Model Number :

PC:

Sensor Type :

P : pH, Dome shaped
 PF : pH, Flat Glass
 PHF : pH, HF Resistant (Measures only in 2 to 9 pH)
 PHP : pH, High Purity
 R : Redox / ORP
 PHA : Direct 4 to 20mA Output Sensor; Input power 9 to 24 VDC; Range: 0 to 14pH
 RA : Direct 4 to 20mA Output Sensor; Input power 9 to 24 VDC; Range: - 1500mV to 1500mV

Temperature Element :

R100 : PT100
 R1K : PT1000
 RDT : PT100 and PT1000 (Only for Dome shaped sensor type)
 NA : No Temp. Element (For ORP Sensor)

Custom :

B : Teflon Body Sensor (Only for Dome shaped sensor type)
 DC : Detachable Cable (Only for Dome shaped sensor type)

Cable : (Std. 15 feet, Max 33 feet)

XX : Cable in feet

PC P R1K DC XX

pH Sensor Selection :PCPR1KDC33 - pH Sensor, Pt1000 Temp Element,Ryton body, Detachable Cable 33 feet length
ORP Sensor Selection :PCRNAB - ORP Sensor, No Temp element, Teflon body, Std 15 feet Cable length

Notes:

- PCPHA : pH Sensor with direct 4 to 20mA Output correlates to range 0 to 14pH. Sensor comes with inbuilt temperature compensation hence Do Not fill anything in " Temperature element" section in Ordering Information
- PCRA : ORP Sensor with direct 4 to 20mA Output correlates to range -1500 to 1500mV. Sensor comes with inbuilt temperature compensation hence Do Not Fill anything in " Temperature Element" section in ordering information.
- For Std. Cable length (15 feet) DO NOT fill anything in the "Cable" section in Ordering Information else for longer cable lengths mention cable length required in feet.
- DO NOT Fill this section in Ordering Information if you DO NOT have any custom requirement else select Custom option as per requirement in Ordering Information.

Combination pH Sensor for High Temperature Application



**Connects
with most of
pH Analyzers /
Controllers /
Transmitters**

Features & Benefits

Potence Controls PCV Series pH Sensors are specifically designed for Harsh and Special Applications. These sensors with a new unique multipurpose glass; allows pH sensors to provide fast response, great accuracy and repeatability in High Temperature Application.

Sensors manufactured with Double Junction Solid Polymer Reference (SPR). Ideal for difficult industrial measurements with solid content or oxidizing agents. The solid polymer reference solves the most common failure mode for Conventional pH Sensors where the reference junction becomes clogged.

The sensor is suitable for High Temperature application without cracking or boiling of internal fill solution.

General Specifications

Body	: Ryton®
Measuring pH Range	: 0 to 14
Accuracy	: ± 0.03 pH
Temp. Element	: Pt100 / Pt1000
Temp. Limit	: 0 to 130°C
Pressure Limit	: 100 psig
Mounting	: 3/4 th NPTM

Ordering Information

Model	Description
PCVR100_HT	GX Glass pH Sensor; Ryton Body; Pt100; 3/4th NPTM; Std. 15 feet Cable
PCVR1K_HT	GX Glass pH Sensor; Ryton Body; Pt1000; 3/4th NPTM; Std 15 feet Cable

Note: For longer Cable Length consult Factory.

PCPL reserves the right to alter specifications at any time. Image shown is for indication purpose only.

Combination pH Sensor for Harsh Application



**Connects
with most of
pH Analyzers /
Controllers /
Transmitters**

Features & Benefits

Potence Controls PCV Series pH Sensors are specially designed for Harsh and Special Applications. These sensors with a new unique multipurpose glass; allows pH sensors to provide fast response, great accuracy and repeatability.

A concentric measuring and reference electrode with large reference area minimizes reference clogging problems.

Annular ceramic reference junction permits use where high solution currents prevail and is unaffected by streaming potentials.

Double Junction Polymerized Gel filled reference requires NO pressurization allows to use in samples having Organic compounds, Proteins, Heavy metal or other compounds that reacts with silver.

The sensor is suitable for Harsh applications such as Pharma Industry/Bulk Drugs wherein the process many a times involves SOLVENTS and several Chemical Industries etc.

General Specifications

Body	: Ryton®
Measuring pH Range	: 0 to 14
Accuracy	: ± 0.03 pH
Temp. Element	: PT100 / PT1000
Temp. Limit	: 0 - 100°C
Pressure Limit	: 100 psig
Solution Ground	: Platinum Disc
Insertion Length	: 45mm (1.75") from Threads
Mounting	: 3/4 th NPTM

Ordering Information

Model	Description
PCVR100_SP	GX Glass pH Sensor; Ryton Body; PT100; 3/4 th NPTM; Std. 15 feet Cable
PCVR1K_SP	GX Glass pH Sensor; Ryton Body; PT1000; 3/4 th NPTM; Std 15 feet Cable

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Also Consider Our pH and Conductivity Sensors



In the interest of improving and updating, PCPL reserves the right to alter specifications at any time.