

# AP303-21021001-STD

## pH ORP Sensor

Combination pH or Redox electrochemical measurement in flow or immersion service

### PRODUCT SNAPSHOT

**BRAND**

ABB

**FAMILY**

ABB AP300 combination pH/Redox sensor syst

**PART**

AP303-21021001-STD

**PRODUCT TYPE**

pH ORP Sensor

### APTER POWER SALES TEAM

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## PRODUCT OVERVIEW

Combination pH or Redox electrochemical measurement in flow or immersion service

1

Uses a notched AP303 sensing profile

2

Supports pH or Redox measurement

3

Installs in flow or immersion service

4

Uses documented three-quarter-inch NPT interfaces

## SYSTEM COMPONENTS

compatible ABB analyzer

documented AP300 cable and junction arrangement

approved process fitting

controlled calibration and cleaning procedure

### TECHNICAL NOTE

The AP300 data sheet documents the AP303 family but does not decode the full 21021001-STD suffix; verify the nameplate, electrode selection and analyzer configuration before installation.

## TECHNICAL DATA

| PARAMETER          | VALUE              |
|--------------------|--------------------|
| Order identity     | AP303-21021001-STD |
| Sensor model       | AP303              |
| Series             | AP300              |
| Measurement        | pH or Redox (ORP)  |
| Sensor profile     | Notched            |
| Applications       | Flow or immersion  |
| Process connection | 3/4 in NPT         |
| Conduit interface  | 3/4 in NPT         |

| PARAMETER                   | VALUE                                                |
|-----------------------------|------------------------------------------------------|
| Body material               | PVDF composite sensor construction                   |
| Reference system            | Gel electrolyte                                      |
| Junction                    | PTFE                                                 |
| Temperature element         | Integrated in AP300 combination design               |
| Family operating capability | Up to 105 degC and 6 bar for documented gel variants |
| Optional accessory          | Junction-box arrangement                             |
| Official data sheet         | SS/AP300_1                                           |

### ENGINEERING NOTE

The AP300 data sheet documents the AP303 family but does not decode the full 21021001-STD suffix; verify the nameplate, electrode selection and analyzer configuration before installation.

### RELATED PRODUCTS ON APTER POWER

| MODEL                                | SYSTEM ROLE                           | APTER POWER PAGE                                               |
|--------------------------------------|---------------------------------------|----------------------------------------------------------------|
| Bently Nevada 84661 55               | Related industrial automation product | <a href="#">View Bently Nevada 84661 55 page</a>               |
| Bently Nevada 330880 00 00 000 03 02 | Related industrial automation product | <a href="#">View Bently Nevada 330880 00 00 000 03 02 page</a> |
| Bently Nevada 330101 00 60 90 01 05  | Related industrial automation product | <a href="#">View Bently Nevada 330101 00 60 90 01 05 page</a>  |
| Bently Nevada 330104 11 25 10 02 00  | Related industrial automation product | <a href="#">View Bently Nevada 330104 11 25 10 02 00 page</a>  |
| Bently Nevada 330102 04 25 10 02 00  | Related industrial automation product | <a href="#">View Bently Nevada 330102 04 25 10 02 00 page</a>  |
| Bently Nevada 330910 00 07 05 02 CN  | Related industrial automation product | <a href="#">View Bently Nevada 330910 00 07 05 02 CN page</a>  |
| Bently Nevada 330910 00 07 05 02 05  | Related industrial automation product | <a href="#">View Bently Nevada 330910 00 07 05 02 05 page</a>  |
| ABB 3HAC5954 1                       | Related industrial automation product | <a href="#">View ABB 3HAC5954 1 page</a>                       |

# APPLICATIONS & PRECAUTIONS

## COMMON APPLICATIONS

### Process pH measurement

Uses a notched AP303 sensing profile

### Redox potential monitoring

Supports pH or Redox measurement

### Flow-cell installation

Installs in flow or immersion service

### Immersion sensor service

Uses documented three-quarter-inch NPT interfaces

## PRODUCT PRECAUTIONS

- 1 Verify the complete AP303-21021001-STD marking and its assigned ABB AP300 combination pH/Redox sensor system position before work.
- 2 Place the connected process pH measurement process in the approved maintenance state.
- 3 Isolate every documented power, signal and stored-energy source before disconnecting conductors or cables.
- 4 Record the installed slot, connectors, conductors, addressing, firmware and software configuration before removal.
- 5 Use ESD-safe handling and protect keyed electrical, fiber or sensor interfaces as applicable.
- 6 Confirm the installed compatible ABB analyzer and documented AP300 cable and junction arrangement against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended redox potential monitoring function and retain the final acceptance result.

# ENGINEER FAQ

## Q1 Which sensor geometry applies to ABB AP303-21021001-STD?

The AP303 is the notched sensor style in ABB's AP300 family.

## Q2 Can ABB AP303-21021001-STD measure both pH and Redox?

The AP300 platform supports combination pH or Redox measurement; verify the exact electrode selection on the supplied identity.

## Q3 Which installation modes are documented for ABB AP303-21021001-STD?

ABB illustrates AP303 notched sensors in both flow and immersion applications.

## Q4 Which threaded interface is used by ABB AP303-21021001-STD?

The AP303 arrangement uses documented 3/4 in NPT process and conduit interfaces.

## Q5 How must the rear cable of ABB AP303-21021001-STD be protected?

ABB instructs that the rear of the sensor and its cable be sealed in customer-supplied conduit or pipe.

## Q6 Which reference and junction technologies support ABB AP303-21021001-STD?

The AP300 data sheet describes gel electrolyte operation and a PTFE junction in the combination-sensor family.

## Q7 What must be checked before substituting ABB AP303-21021001-STD?

Confirm the complete suffix, electrode function, temperature element, cable arrangement, process fitting and analyzer compatibility.

## Q8 How is ABB AP303-21021001-STD commissioned?

Inspect the seal and process connection, condition and calibrate the sensor, then verify stable pH or ORP response in the assigned analyzer loop.

**SOURCE** ABB Combination pH/Redox (ORP) Sensors AP300 Series data sheet | SS/AP300\_1

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