

INDUSTRIAL AUTOMATION PRODUCT

3900-02-10

Rosemount 3900 general-purpose pH sensor

It measures general-process pH using a 15 ft integral cable and built-in solution ground.

IDENTITY	VERIFIED VALUE
Manufacturer	Rosemount
System family	Rosemount liquid-analysis measurement system
Part number	3900-02-10
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named Rosemount product record.

PARAMETER	TECHNICAL VALUE
Model	3900
Integral preamplifier	None
Integral cable length	15 ft (5 m)
Measuring electrode	GPLR pH glass
Measurement range	0 to 14 pH
Operating temperature	-10 to 100 degC
Temperature compensation	Pt-100
Front process connection	3/4 in and 1 in MNPT
Rear process connection	1 in MNPT
Body material	PPS (Ryton)
Solution ground	Built in

ENGINEERING DATA SUMMARY

DATA GROUP	VERIFIED ASSIGNMENT
Installed host / carrier	Compatible Rosemount analyzer/transmitter
Companion hardware	Approved insertion or flow-through fitting
Field connection	Shielded sensor cable
Primary system function	Uses a double-junction reference architecture
Controlled acceptance duty	Wastewater pH monitoring

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System Role and Architecture

It measures general-process pH using a 15 ft integral cable and built-in solution ground.

FUNCTION 1

Uses a double-junction reference architecture

FUNCTION 2

Includes a built-in solution ground

FUNCTION 3

Supports automatic temperature compensation

FUNCTION 4

Mounts through documented threaded process connections

Matched system components

- Compatible Rosemount analyzer/transmitter
- Approved insertion or flow-through fitting
- Shielded sensor cable
- Process-compatible seal and cleaning arrangement

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Compatible Rosemount analyzer/transmitter
Companion hardware	Approved insertion or flow-through fitting
Field connection	Shielded sensor cable
Primary system function	Uses a double-junction reference architecture
Controlled acceptance duty	Wastewater pH monitoring

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Applications and Engineering Context

Wastewater pH monitoring

Uses a double-junction reference architecture

Chemical neutralization control

Includes a built-in solution ground

Scrubber and effluent analysis

Supports automatic temperature compensation

Abrasive or coating process measurement

Mounts through documented threaded process connections

TECHNICAL NOTE

Mount through the documented MNPT connection, protect the GPLR glass bulb, terminate the integral cable at the assigned analyzer and verify two-point calibration plus temperature response before service.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3900-02-10 / 3900-02-10 recorded
Physical interface	Compatible Rosemount analyzer/transmitter
Companion check	Approved insertion or flow-through fitting
Functional proof	Uses a double-junction reference architecture
Application test	Wastewater pH monitoring

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Engineering Precautions

1

Verify the complete 3900-02-10 marking and the assigned Rosemount liquid-analysis measurement system position before work.

2

Place the connected machine or process in the approved maintenance state before disturbing 3900-02-10.

3

Isolate the applicable power and field energy, then confirm a safe state before disconnecting 3900-02-10.

4

Record connector, conductor, slot and configuration identities before removal of 3900-02-10.

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Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies during handling.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
1C31169G02	Related Rosemount product	View 1C31169G02 page
FX-490	Related Rosemount product	View FX-490 page
ES0350-M1A05L-27N0	Related Rosemount product	View ES0350-M1A05L-27N0 page
960177-02	Related Rosemount product	View 960177-02 page
KJ2003X1-BB1	Related Rosemount product	View KJ2003X1-BB1 page
EC3-X33	Related Rosemount product	View EC3-X33 page
FX-340	Related Rosemount product	View FX-340 page
7379A31G04	Related Rosemount product	View 7379A31G04 page

MANUFACTURER SOURCE RECORD

Rosemount 396/396P or 3900 product data sheet

00813-0100-3396 / 00813-0100-3900

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