DOCUMENT TYPE: TECHNICAL SPECIFICATION SHEET

PRO6149 · pH Composite Electrode High Temperature Resistance

High-temperature pH composite electrode with glass body, ceramic junction, Longlife reference system, 3 M KCl fill solution and S7 connector.

SKU PRO6149 · pH 0-14 · -5 to 110 °C · Φ12 x 120 mm · S7 connector

High temperature | -5 to 110 °C | pH 0-14 | Glass body | Ceramic junction | Longlife reference | 3 M KCl | Φ12 x 120 mm | S7 connector

Product overview

PRO6149 is a high-temperature resistant pH composite electrode for reliable pH measurement in demanding laboratory and process samples where the working temperature may exceed the practical range of standard routine electrodes.

The electrode combines pH indicator and reference functions in one glass-body probe. Its ceramic junction, 3 M KCl fill solution and Longlife reference system support stable measurement, reduced drift and extended service life in routine and thermally demanding applications.

Application profile

Hot water, chemical process samples, pharmaceutical QC, environmental monitoring and laboratory workflows with elevated sample temperature.

Connector profile

S7 electrode connector. For meters with BNC pH input, use a compatible S7-BNC(Q9) cable.

Measurement range

Full pH range 0-14 with working temperature from -5 to 110 °C.

Body format

Glass body, standard Φ12 x 120 mm format for common electrode holders and vessels.

PRO6149 · high-temperature resistant pH composite electrode · glass body · S7 connector

Core technical summary

Parameter	Specification	Parameter	Specification
SKU	PRO6149	**Product name**	pH Composite Electrode High Temperature Resistance
Electrode type	Composite pH electrode	**pH range**	0-14 pH
Sensor material	Glass	**Body material**	Glass body
Reference type	Longlife reference	**Junction material**	Ceramic junction
Fill solution	3 M KCl	**Working temperature**	-5 to 110 °C
Dimensions	Φ12 x 120 mm	**Connector type**	S7

Electrode construction and materials

- **Composite pH format:** pH indicator and reference electrode are integrated in one probe body.
- **Glass sensor and body:** suitable for precise pH measurement and careful laboratory/ process handling.
- **Ceramic junction:** provides stable electrolyte contact with the sample.
- **3 M KCl fill solution:** supports stable reference potential and reproducible readings.
- **Longlife reference:** intended for extended service stability and reduced drift compared with simple routine formats.

Measurement and operating profile

- **pH range:** 0-14 pH.
- **Working temperature:** -5 to 110 °C.
- **Typical use:** hot process samples, hot water checks, chemical reactions, laboratory QC and environmental applications.
- **Temperature compensation note:** this electrode does not include an integrated temperature probe. Use the meter temperature setting or a separate compatible temperature probe where automatic temperature compensation is required.

Compatibility notice - connector and meter matching are essential

This electrode has an S7 connector. For pH meters with BNC input, use a compatible S7-BNC(Q9) cable. Confirm the meter input, cable format and measurement method before ordering.

Electrode body · glass pH composite electrode · Φ12 x 120 mm

Connector reference · S7 connector · use S7-BNC(Q9) cable for compatible BNC meters

Connector options and compatibility

Connector / option	Technical note
S7	Primary connector on this electrode. The electrode body ends in S7 format.
S7-BNC(Q9) cable	Required when using the electrode with pH meters that accept standard BNC pH electrode input.
Direct S7 input	For meters or configurations that accept direct S7 connection, confirm cable requirement with the meter configuration.

Practical compatibility checklist

- **Meter input:** confirm whether the pH meter uses BNC(Q9), S7 or another dedicated input.
- **Cable:** include S7-BNC(Q9) cable when the meter has BNC pH input.
- **Temperature:** high-temperature resistance does not automatically mean integrated temperature measurement.
- **Sample matrix:** verify suitability for aggressive, viscous, non-aqueous or heavily contaminated samples before final selection.

For high-temperature samples

- Allow the electrode and sample to reach a stable measurement condition before recording final values.
- Avoid unnecessary thermal shock where possible; rapid temperature changes can stress glass electrodes.
- Use appropriate sample handling and vessel materials for hot liquids.
- Confirm whether the application requires temperature compensation from the meter method.

For pH measurement

- Calibrate with fresh pH buffers before routine measurement.
- Use calibration buffers that match the expected measurement range.
- Rinse the electrode between samples and avoid cross-contamination.
- Follow the pH meter calibration and measurement procedure.

For electrode care

- Keep the glass membrane hydrated according to the supplied electrode instructions.
- Do not store the pH glass membrane dry unless the manufacturer instruction specifically permits it.
- Clean according to sample contamination and laboratory procedure.
- Inspect the junction and connector area before use.

General electrode notes

- **pH indicator electrode:** requires a separate reference electrode.
- **Composite pH electrode:** combines the pH indicator and reference electrode in one body.
- **3-in-1 pH composite electrode:** combines pH indicator, reference and temperature probe in one electrode assembly.
- **PRO6149 format:** high-temperature resistant composite pH electrode with S7 connector.
- **Temperature measurement:** requires a separate temperature probe or a 3-in-1 electrode model if automatic temperature measurement is needed.
- **Final selection:** match sample matrix, pH range, working temperature and connector format.

Linked back to COLO.Science

Direct links to the PRO6149 product page, quotation request path, COLO.Science home page and electrochemical instruments page keep this specification connected to the main website and RFQ workflow.

Need help confirming the correct high-temperature pH electrode?

Send the pH meter model, connector type, sample matrix, operating temperature and whether automatic temperature compensation is required. COLO.Science can help confirm the correct electrode configuration or recommend a compatible alternative.

Supplier and support

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Product reference

SKU PRO6149
pH 0-14 · -5 to 110 °C
S7 connector · Φ12 x 120 mm

PRO6149 · pH Composite Electrode High Temperature Resistance

A robust high-temperature pH electrode for demanding laboratory and process workflows, with glass body, ceramic junction, 3 M KCl fill solution, Longlife reference and S7 connector.

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Official configuration and manufacturer-confirmed specification notice

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