

## HI7630-48

# Conductivity and Temperature Industrial Smart Probes

HI7630-48 is a Conductivity and Temperature probe designed to be paired with the HI510 Universal Process Controller.

This four-ring probe is recommended for a wide range of water applications such as industrial process water.

An integral temperature sensor measures the process temperature and adjusts the measured conductivity to a reference temperature by applying specialized compensation standards:

- **Linear:** appropriate when it is assumed that the temperature coefficient of variation has the same value for all measurement temperatures.
- **Standard:** appropriate for high-purity water measurements and documented in ASTM Standard D5391-14. This setting should be used for resistivity measurements.
- **Natural:** appropriate for natural ground, well, or surface water (or water with similar composition) in accordance with ISO7888 standard.

The result is reliable electrolytic conductivity (EC), TDS (Total Dissolved Solids), resistivity, or Seawater Salinity in percent, psu, or ppt units.

This conductivity probe can be installed directly in-line, immersed in a tank, or in a flow cell, and is suited for continuous measurement of conductivity and associated parameters required in applications such as water treatment, drinking water, feed water condensate, or other clean water applications as well as sea water and surface-water monitoring.

The probe is available with an integral connector that permits connections after installation.

Patch cables may be purchased separately to connect between the probe and controller up to 50 meters (164 ft).

- Rugged, chemically-resistant PVDF body
- 3/4" NPT external thread for mounting
- 6 bar (87 psi) maximum pressure at 25 °C (77 °F)
- Digital probe stores model, firmware, serial number, and calibration information



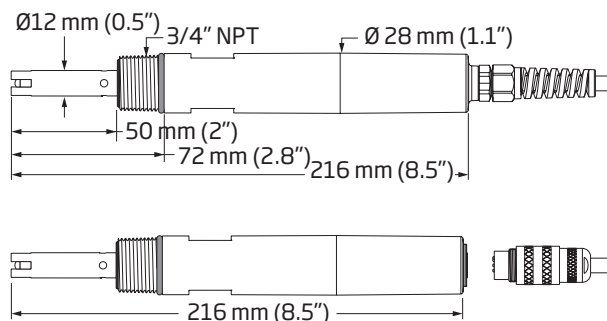
Four-ring

Four-ring probes provide stable measurements over a wide measure range and do not require frequent calibrations.



Four-ring

## Dimensions



## Specifications

example HI7630-48zz

EC	Range	0.0 $\mu$ S/cm to 999.9 mS/cm*
	Resolution**	0.1 $\mu$ S/cm; 0.001, 0.01, 0.1 mS/cm
	Accuracy	$\pm 2\%$ of reading or $\pm 1 \mu$ S/cm, whichever is greater
	Calibration	Standard: Automatic, two-point with standard solution Process: Single point
TDS	Range	0.0 mg/L to 400.0 g/L (TDS factor 0.5)*
	Resolution**	0.1 mg/L; 0.001, 0.01, 0.1 g/L
	Accuracy	$\pm 2\%$ of reading or $\pm 0.5$ mg/L, whichever is greater
	Calibration	Standard: Automatic, two-point with standard solution Process: Single point
Resistivity	Range	1.0 $\Omega \cdot$ cm to 9.99 M $\Omega \cdot$ cm*
	Resolution**	0.1, 1 $\Omega \cdot$ cm; 0.01, 0.1, 1 k $\Omega \cdot$ cm; 0.01 M $\Omega \cdot$ cm
	Calibration	Single point
Temperature	Range	0.0 to 100.0 °C (32.0 to 212.0 °F)
	Accuracy	$\pm 0.5$ °C; $\pm 1.0$ °F
	Calibration	Single point offset (controller setting)
Temperature Compensation Mode	Linear, Natural, Standard, None	
Temperature Source	Automatic (from probe) Manual	
Body	PVDF	
Sensor	Type	Four-ring, platinum
	Insulator	Glass
	Diameter	12 mm (0.5")
	Insertion length	50 mm (2")
Maximum Pressure	6 bar (87 psi)	
Threaded Connection	3/4" NPT external thread for insertion mounting	
Protection Rating	IP68	
Cable Length	zz, see Ordering Information	

\* Absolute values (not temperature compensated)

\*\* Automatic ranging

## Ordering Information

Each probe is supplied with quick reference guide and probe quality certificate.

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### Choose your configuration:

4	Four-ring conductivity, platinum on glass cell constant $k \approx 1.0$ /cm
8	Smart probe, with RS485 connection
zz	00 supplied with DIN connector (without cable). See Accessories section for patch cable ordering codes. 05, 10, 15, 25, 50 fixed cable length (in meters)