HANNA instruments

HI510

Universal Process Controller

HI510

Universal Process Controller

HI510 is an advanced universal process controller that can be configured for many applications requiring monitoring and/or control of process parameters. It features a digital probe input that will automatically detect and update the controller with the parameter that it measures. The HI510 offers wall, pipe and panel mounting options.

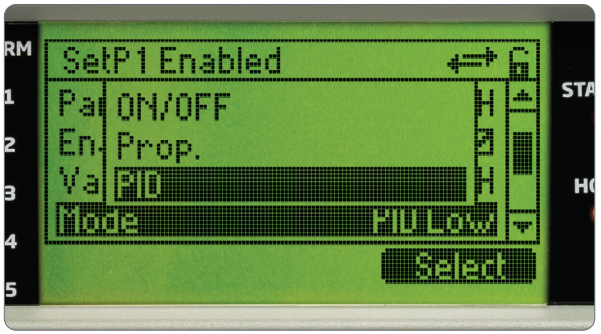
HI510 is designed to adapt to a user's unique process control requirements. The controller has a large backlit dot matrix display for easy viewing and provides for a intuitive interface for setup options. The controller utilizes multi-color LEDs for easy viewing of the instrument's status including relay activation, in alarm mode, or in hold status. All programming operations are done through the low profile vulcanized rubber keypad or with an RS485 connection to a PC running the HI92500 Windows compatible software.

- Waterproof IP65 (NEMA 4X) enclosure
- Large backlit LCD
- Multi-color LED status indicators
- Audible alarm
- Tactile rubberized keypad
- Universal mounting
- Universal Hanna digital probe

Password protection

The HI510 features password protected calibration and setup.

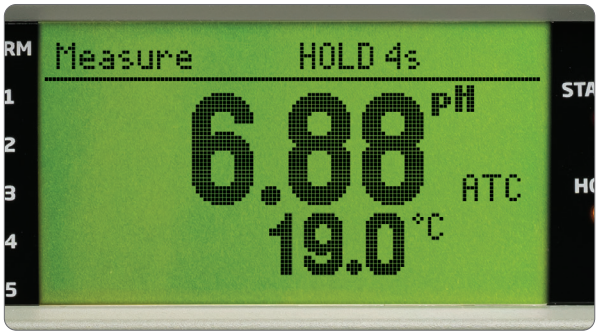
Features Displayed on Screen



Control Modes

The control mode can be configured to be On/Off, Proportional, or PID types. The mode can be set high or low. High control mode is required if the process value is too high and needs to be decreased. Low control mode is required if the process value is too low and needs to be increased.

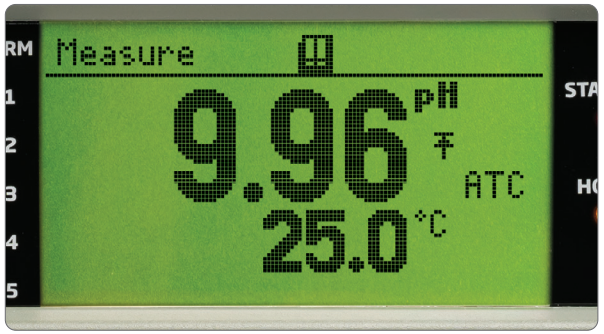
For On/Off control, the hysteresis band is adjustable, while in Proportional and PID modes, deviation, control period and other tuning parameters can be set to optimize control around a set point.



Hold Function

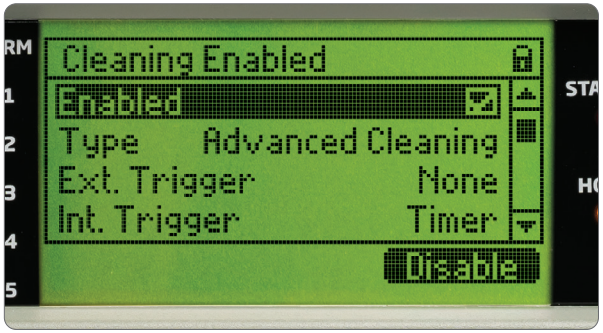
During calibration, cleaning and configuration the controller automatically goes into Hold mode. During Hold mode all control loops related are disabled. The analog outputs may be configured to go to a fixed value or remain at the last value.

The Hold function can also be triggered manually, using an external digital input or by entering in Manual mode. This is useful for disabling control when performing maintenance.



LCD Information

Local visual indicators of problems are displayed. The ? DIAG key provides details of the issue.

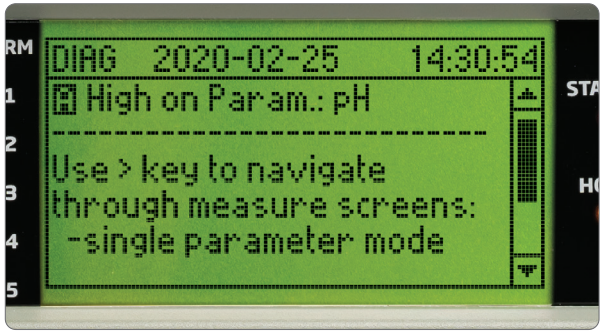


Auto-cleaning cycle

Difficult applications often require an almost continuous maintenance of the probe. Processes with a high-suspended solids, fats, oils, pigments and microorganisms will coat the pH sensing glass, ORP sensors and the reference junction. The cleaning function allows the ability to program one or more wash cycles and uses the relays to activate valves, pumps or compressed air based on the type of washing that is required to maintain probes for reliable results.

Configurable Alarm System

The alarm system is configurable for measured parameters. The alarm can also be activated by event triggers or abnormal operation. For example, if a dosing relay remains closed for an excessive period of time or if temperature exceeds an upper limit during an exothermic neutralization reaction. During an alarm state, a highly visible red LED on the front of the instrument will blink. All relays configured for control are inactivated until the alarm state is resolved.



? DIAG - Help and Diagnostic Key

The help and diagnostic key (? DIAG) provides information related to errors; or in setup mode, information about settings.

Inputs and Outputs

Analog Outputs

- Available with up to four analog outputs and 5 relays used for control and for sending a signal to data loggers, PLC, SCADA and other remote monitoring systems
- 0-20 mA or 4-20 mA
- Scalable in selecting values for the range
- Can be used for control of pumps and valves
- On alarm state can output a 22 mA signal to the monitoring system

Digital Communications Output

- The Hanna HI92500 PC application supports communication between the controller and a PC. The following tasks may be accomplished remotely:
  - Monitoring using the virtual LCD (limited to a single remote control in the entire network)
  - Setup
  - Loading the Setup configuration file to a controller
- RS485 Digital output for PC and other device connectivity
- Daisy-chain up to 32 devices to a remote monitoring system

Digital Inputs

- Two digital inputs are available for remotely triggering, cleaning and hold functions

Relays

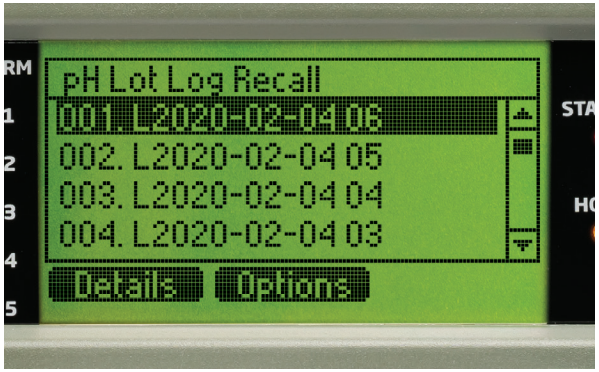
- Up to 5 control and 1 alarm electromechanical relays available
- Replaceable 5A fuses to protect all relays
- Extractable terminal blocks for easy wiring
- Relay options include single pole double throw (SPDT) and single pole single throw (SPST)
- Control relays can be programmed for On/Off, Proportional, or PID control as well as cleaning and Hold functions
- Configurable alarm relay
- Relays terminal blocks and their wires paths are separated from the low voltage section for additional safety

Data and Event Logging

Automatic Data-logging

HI510 has built-in data logging that stores data at selectable intervals along with relay control settings and calibration data.

- Stores data in up to 100 lots with each holding 8600 records
- Selectable log interval from 10 seconds to 3 hours
- Logged Data includes:
  - pH, mV, temperature values; pH and temperature alarm (for pH probe only)
  - Calibration information including solutions used. For pH, the offset and slope is recorded.



Event Log

The Event Log file can hold a maximum of 100 events. It includes errors, alarms, warnings, calibration events, configuration changes and cleaning events.

Enclosure Features

NEMA 4X Enclosure

The HI510 is suitable for indoor or outdoor environments. The NEMA 4X enclosure ensures the electronics are protected against splashing and hose-directed water or windblown dirt, dust, rain or sleet. It also provides corrosion protection for use near salt water.

Enclosure Features

Cable Glands

To maintain the NEMA 4X enclosure rating during use, the conduit openings and connection cables are sealed against the environment using the provided cable glands, seals and plugs.

Spring Loaded Screws

The front panel is hinged at the front of the enclosure for easy access to wiring locations. It features spring loaded screws that won't fall out when accessed.

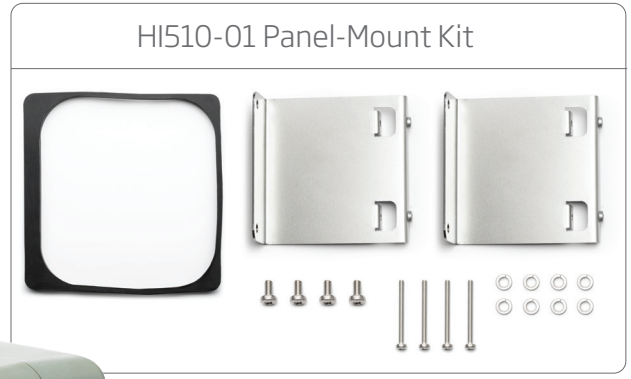
USB Type-C Port

Logged data can be transferred to a flash drive as a .csv file using the USB Type-C port. A rubberized plug helps protect the port against the ingress of water.

Panel-Mount


HANNA
ALARM
REL 1
REL 2
REL 3
REL 4
REL 5
Measure
8.98 pH
ATC
6.5 mV
19.2 °C
STATUS
HOLD
? DIAG

Panel-Mount



The controller can be securely panel mounted through a ½ DIN opening using the HI510-01 Panel-Mount Kit. The kit includes a sealing gasket, dual zinc coated brackets, and associated hardware.

Wall-Mount


HANNA
ALARM
REL 1
REL 2
REL 3
Measure
92 mV
25.0 °C
STATUS
HOLD
? DIAG

Wall-Mount

HI510-02 Wall-Mount Kit

The controller can be surface mounted using the HI510-02 Wall-Mount Kit. The kit includes a zinc coated mounting plate and associated hardware. The plate may be oriented vertically or horizontally.

Pipe-Mount


HANNA
ALARM
REL 1
REL 2
REL 3
REL 4
REL 5
Measure
HOLD 4s
6.88 pH
ATC
19.0 °C
STATUS
HOLD
? DIAG

Pipe-Mount

The controller can be mounted to a vertical or horizontal pipe using the HI510-03 Pipe-Mount Kit. The kit includes a zinc coated mounting plate, associated hardware, and U-bolts to accommodate a 1", 1 ½", or 2" pipe.

HI510-0540

HI510-0320

Specifications

Specifications	HI510
Digital Probes	Smart HI10X6 series - pH and Temperature with RS485 interface Smart HI20X4 series - ORP and Temperature with RS485 interface
Display	Graphic LCD, 128 x 64 pixel B/W with backlight
Digital Inputs	2 independent, galvanically isolated inputs (configurable for Hold and Cleaning functions) On state: 5 to 24 Vdc, low or high level active
Analog Outputs	2 or 4 independent, galvanically isolated outputs Configurable as 0-20mA or 4-20mA 22 mA as alarm signal option
Analog Output Accuracy	±0.2% f.s.
Digital Communication	RS485 serial port - Remote monitoring and control USB-C port - Retrieve log files and firmware upgrading
Relays	Up to 5 relays (independently configurable for process variables, hold and cleaning functions) Electromechanical relay SPDT and SPST contact outputs 5A – 250 Vac; 5A – 30 Vdc (resistive load) Fuse protected: 5A, 250V slow blow fuse
Alarm Relay for All Measurement Alarms	Electromechanical relay SPDT contact output 5A – 250 Vac; 5A – 30 Vdc (resistive load) Fuse protected: 5A, 250V slow blow fuse
Data Logging	Interval log, up to 100 files, maximum 8600 records on each stored file. When the maximum limit of 100 stored files is reached, the most recent file will automatically erase the oldest one. Event log, maximum 100 records. When the maximum limit is reached, the last record overwrites the oldest one.
Power Supply	100 – 240 Vac ±10%; 50/60 Hz; 15VA; fuse protected (2A, 250V slow blow fuse)
Power Consumption	15VA
Installation Category	II
Environment	-20 to 50°C (-4 to 122°F); max. 100% RH non-condensing
Enclosure*	Single case ½ DIN, type 4X, IP65 ingress protection
Weight	Approximately 1.6 kg (3.5 lb.)
Dimensions	Width 144.0 mm (5.7") Height 144.0 mm (5.7") Depth 151.3 mm (6.0")
Ordering Information	**HI510-0540** universal process controller with 5 relays and 4 analog outputs is supplied with 3m power cable, cable gland set, instrument certificate, and instruction manual. **HI510-0320** universal process controller with 3 relays and 2 analog outputs is supplied with 3m power cable, cable gland set, instrument certificate, and instruction manual.
Accessories	**HI1006-18xx** pH and temperature probe **xx** = **05** m, **10** m, **15** m, **25** m, **50** m cable length
	HI2004-18xx ORP and temperature probe **xx** = **05** m, **10** m, **15** m, **25** m, **50** m cable length
	HI510-01 panel-mount kit
	HI510-02 wall-mount kit
	HI510-03 pipe-mount kit

* For a water tight seal: Gland seals need to be used over cables and the four screws on the front casing need to be tightened to 13.3 lbf·in (1.5 N·m, maximum 2.0 N·m), of torque.

HI1006-18 Series • HI1006-38 Series
HI1006-48 Series • HI1016-18 Series
HI1016-38 Series • HI1016-48 Series

pH and Temperature Industrial Smart Probes

These industrial pH probes are intended for industrial process control when paired with the HI510 Universal Process Controller.

- HI1006-18 and HI1016-18 series, designed for low conductivity or low-temperature process environments
- HI1006-38 and HI1016-38 series, designed for extended pH range or high-temperature process environments
- HI1006-48 and HI1016-48 series, designed for process environments where hydrofluoric acid is present

An integral temperature sensor measures the process temperature and adjusts the probe signal. The result is a reliable pH measurement at the temperature of measurement.

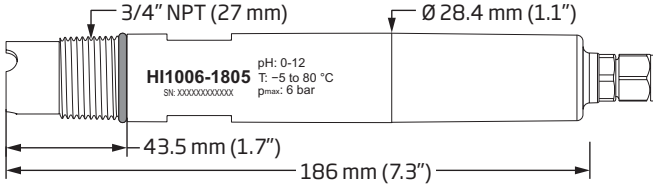
The flat tip on the low temperature probe eliminates deposits that can foul the sensor, significantly reducing necessary maintenance. The PVDF (Kynar®) body material is easy to clean and disinfect and resistant to most chemicals (e.g. solvents, sodium hypochlorite), ultraviolet light, and fungal growth.

The probes can be installed directly in-line, immersed in a tank (use HI60501 immersion holder), or in a flow cell. Several extension cable lengths are available to cover up to a 50 meter distance between probe and controller.

The probes are suited for continuous measurement of pH required in applications such as urban wastewater treatment, industrial effluent treatment, and surface water monitoring.

- Rugged, chemically-resistant PVDF (Kynar®) body
- Specialized glass sensor for fast stabilization and accurate results
- 3/4" NPT external thread for mounting
- 6 bar (87 psi) maximum pressure
- Built-in temperature sensor for measurement and compensation
- Matching pin helps avoid typical problems caused by grounding loop current
- Digital probe stores model, firmware, serial number, and calibration information

Dimensions



Specifications

Specifications	HI1006-1805 Configuration Example
Range	0.00 to 12.00 pH
Accuracy	±0.02 pH
Temperature	-5.0 to 80.0°C / 23 to 176°F
Temperature Accuracy	± 0.5°C / 1.0°F
Temperature compensation	automatic or manual 0.0 to 80.0°C (32.0 to 176.0°F)
Body	PVDF
Junction	PTFE
Sensor	Low temperature (LT) glass
Sensor Tip	flat
Maximum Pressure	6 bar
Threaded Connection	3/4" NPT external thread for insertion mounting
Probe Cable Length	5 m
Threaded Connection	3/4" NPT external thread for insertion mounting

Ordering Information

Each pH and temperature probe is supplied with probe quality certificate and instruction manual.

HI10 [x][x] – [y][8][z][z]

Choose your configuration:

xx	**06**	PolyTetraFluoro-Ethylene (PTFE) junction
	16	Ceramic junction
y	**1**	Low Temperature (LT) glass sensor, titanium matching pin -5 to 80 °C (23 to 176 °F) Temperature compensation: 0 to 80 °C (32 to 176 °F) 0 to 12 pH
	3	High Temperature (HT) glass sensor, titanium matching pin 0 to 100 °C (32 to 212 °F) Temperature compensation: 0 to 100 °C (32 to 212 °F) 0 to 14 pH
	4	Fluoride-resistant (HF) glass sensor, titanium matching pin -5 to 60 °C (23 to 140 °F) Temperature compensation: 0 to 60 °C (32 to 140 °F) 0 to 10 pH
8	Smart probe, with RS485 connection	
zz	00, 05, 10, 15, 25, 50 attached cable length (meters) The HI10X6-Y800 models are supplied without cable.	

HI2004-18 Series • HI2014-18 Series
HI2004-28 Series • HI2014-28 Series

ORP and Temperature Industrial Smart Probes

These smart industrial ORP probes are used for the measurement of the ratio of oxidized to reduced species in the process. Together with the Hanna Instruments HI510, they can monitor and control disinfection chemicals or follow and control a critical oxidation or reduction reaction.

- HI2004-18 and HI2014-18 platinum sensor series, designed to provide the best response over a wide range of applications
- HI2004-28 and HI2014-28 gold sensor series, designed for oxidative processes

To achieve accurate results, the correct combination of reference system and junction are important. Hanna Instruments offers ORP sensors with unique reference junctions to ensure dependable measurements, even in dirty samples. An integral temperature sensor measures water temperature.

The probes can be installed directly in-line, immersed in a tank, or in a flow cell. Several extension cable lengths are available to cover up to a 50 meter distance between probe and controller.

The probes are suited for continuous measurement of ORP required for process control such as monitoring and / or controlling oxidizers and reducing agents, water treatment and monitoring, industrial effluent treatment, and swimming pools

- Rugged, chemically-resistant PVDF (Kynar®) body
- 3/4" NPT external thread for mounting
- 6 bar (87 psi) maximum pressure
- Built-in temperature sensor for measurement
- Digital probe stores model, firmware, serial number, and calibration information

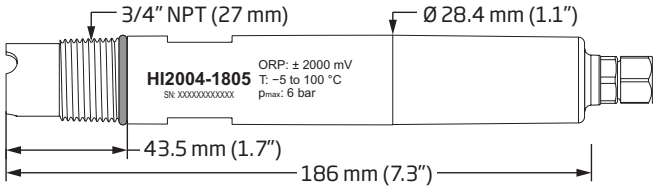
PTFE junction: Minimizing the potential for clogging and chemically resistant, PTFE is ideal for samples with high content of suspended solids or for high-pressure installation.

Ceramic junction: Porous chemically resistant plug that connects the reference electrode to the process electrically.

Platinum sensor: Used in reducing processes such as chlorine dosing in pools and spas or chromate reduction.

Gold sensor: Used in oxidative processes such as cyanide oxidation in the mining industry.

Dimensions



Specifications

Specifications	HI2004-1805 - Configured Example
Range	-2000 to +2000 mV
Accuracy	±2 mV
Temperature	-5.0 to 100.0 °C (23.0 to 212.0 °F)
Temperature accuracy	± 0.5 °C / 1.0 °F
Body	PVDF
Junction	PTFE
Sensor	Platinum
Maximum pressure	6 bar
Threaded connection	3/4" NPT external thread for insertion mounting
Cable length	5 m (16'5")

Ordering Information

Each Oxidation-Reduction Potential (ORP) and temperature probe is supplied with: probe quality certificate and Instruction manual.

HI20 [x][x] - [y][8][z][z]

Choose your configuration:

xx	**04**	PolyTetraFluoro-Ethylene (PTFE) junction
	14	Ceramic junction
y	**1**	Platinum sensor -5 to 100 °C (23 to 212 °F) Temperature measurement: 0 to 100 °C (32 to 212 °F) ± 2000 mV
	2	Gold sensor -5 to 100 °C (23 to 212 °F) Temperature measurement: 0 to 100 °C (32 to 212 °F) ± 2000 mV
8		Smart probe, with RS485 connection
zz		00, 05, 10, 15, 25, 50 attached cable length (meters) The HI20X4-Y800 models are supplied without cable. See Accessories section for extension cable ordering codes.

HI7630-28 Series • HI7630-48 Series

Conductivity and Temperature Industrial Smart Probes

HI7630-28 and HI7630-48 series are Conductivity and Temperature probes designed to be paired with the Hanna Instruments HI510 Universal Process Controller.

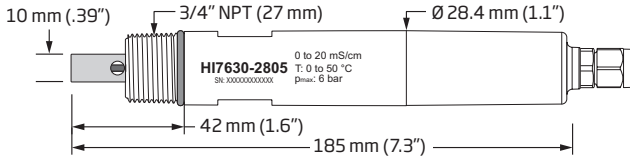
Recommended for clean, noncorrosive water applications, the HI7630-28 series can be calibrated using a standard with a value close to the measurement value.

The HI7630-48 series provides an exceptionally stable measurement over a wide measure range and does not require frequent calibration. An integral temperature sensor measures the process temperature and adjusts the measured conductivity to a reference temperature by applying a temperature coefficient for linear compensation. The result is reliable electrical conductivity (EC), TDS, resistivity, or salinity in percent, PSU, or ppt units.

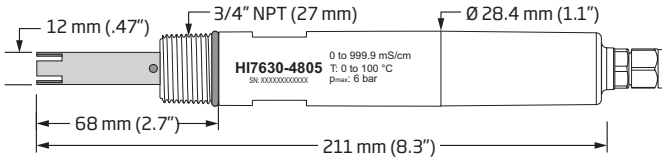
Probes can be installed directly in-line, immersed in a tank, or flow cell.The conductivity probes are suited for continuous measurement of conductivity and associated parameters required in applications such as water treatment, drinking water, feedwater condensate, or other clean water applications.

- Rugged, chemically-resistant PVDF (Kynar®) body
- 3/4" NPT external thread for mounting
- 6 bar (87 psi) maximum pressure
- Built-in temperature sensor for measurement and compensation
- Digital probe stores model, firmware, serial number, and calibration information

Dimensions Two-ring



Dimensions Four-ring



Specifications

Specifications	HI7630-2805 - Configured Example
Range*	EC: 0 to 20.00 mS/cm; TDS: 0 to 10.00 g/L RES: 50 Ω to 99.9 MΩ • cm
Accuracy	± 2% of reading (±0.01 µS/cm or 1 digit, whichever is greater)
Temperature	0.0 to 50.0 °C (32.0 to 122.0 °F)
Temperature accuracy	± 0.5 °C / 1.0 °F
Temperature compensation	Automatic, manual, without compensation
Body	PVDF
Sensor	2 electrode, stainless steel
Maximum pressure	6 bar
Threaded connection	3/4" NPT external thread for insertion mounting
Cable length	5 m (16'5")

* Actual conductivity

Specifications	HI7630-4805 - Configured Example
Range*	EC: 0 to 999.9 mS/cm; TDS: 0 to 400.0 g/L RES: 1.0 Ω to 99.9 MΩ • cm NaCl: 400.0 %NaCl, 42 PSU NaCl, 80 ppt NaCl
Accuracy	± 2% of reading (±0.01 µS/cm or 1 digit, whichever is greater)
Temperature	0.0 to 100.0 °C (32.0 to 212.0 °F)
Temperature accuracy	± 0.5 °C / 1.0 °F
Temperature compensation	Automatic, manual, without compensation
Body	PVDF
Sensor	Four-ring platinum
Maximum pressure	6 bar
Threaded connection	3/4" NPT external thread for insertion mounting
Cable length	5 m (16'5")

Ordering Information

Each conductivity and temperature probe is supplied with probe quality certificate and instruction manual.

HI7630 - [y] [8] [z] [z]

Choose your configuration:

y	**2**	Two-electrode cell conductivity, stainless steel, cell constant k ≈ 0.1/cm
	4	Four-ring conductivity, platinum on glass, cell constant k ≈ 1/cm
8		Smart probe, with RS485 connection
zz		00, 05, 10, 15, 25, 50 attached cable length (meters) The HI7630-Y800 models are supplied without cable. See Accessories section for extension cable ordering codes.

HI7640-18 Series

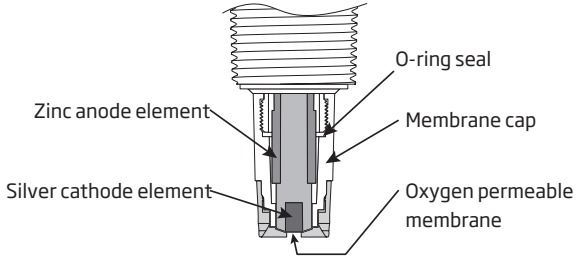
Galvanic Dissolved Oxygen Industrial Smart Probe

The HI7640-18 series are galvanic-style oxygen probes designed for use with the Hanna Instruments HI510 Universal Process Controller.

The probe is suited for continuous measurement of oxygen dissolved in water. An integral temperature sensor measures water temperature and adjusts the probe signal over the specified temperature range. The result is reliable dissolved oxygen (DO) concentration or percent saturated measurements.

Suitable for control applications in municipal and industrial wastewater treatment, the probe can be installed directly in-line, immersed in a tank, or in a flow cell installation.

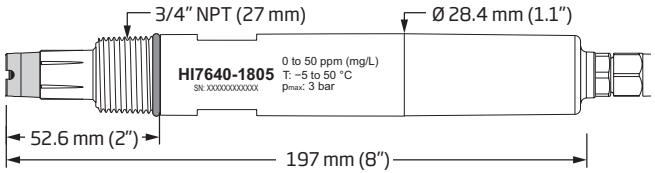
The galvanic probe functions in the same manner as a battery. The sensing elements consist of silver cathode and zinc anode, with a pretensioned HDPE membrane isolating the cell from the liquid being measured.



The refillable electrolyte reservoir holds ample electrolyte to support the reaction. Oxygen diffuses through the membrane and is reduced on the surface of the cathode. This reaction generates a signal proportional to the oxygen concentration.

- Galvanic probe with digital processing
- Simple membrane-cap replacement using pretensioned HDPE membranes
- Large electrolyte reservoir provides longer service life
- Rugged, chemically-resistant PVDF (Kynar®) body
- 3/4" NPT external thread for mounting
- 3 bar maximum pressure
- Built-in temperature sensor for measurement and DO compensation
- Digital probe stores model, firmware, serial number, and calibration information

Dimensions



Specifications

Specifications	
Range	0.0 to 600.0 % saturation 0.00 to 50.00 mg/L (ppm) concentration
Accuracy	±2 % of reading ±1 digit
Temperature	-5.0 to 50.0 °C (23.0 to 122.0 °F)
Temperature accuracy	± 0.5 °C / 1.0 °F
Temperature compensation	-5.0 to 50.0 °C (23.0 to 122.0 °F)
Body	PVDF
Sensor type	Galvanic cell • Cathode: Silver (Ag) • Anode: Zinc (Zn)
Water movement	0.01 to 0.03 m/second
Maximum pressure	3 bar
Threaded connection	3/4" NPT external thread for insertion mounting
Wetted parts	Sensor body: Ultem (PEI) Membrane cap: Ultem (PEI) Membrane material: High density Polyethylene (HDPE) O-ring: Nitrile rubber (NPR)
Ingress Protection Rating	IP68
Cable length	5 m (16'5")

Ordering Information

Each galvanic dissolved oxygen probe is supplied with HI7042S refilling electrolyte solution, 30 mL, HI76409A/P replacement membrane (5 pcs.), refilling pipette, replacement screw and o-ring for electrolyte refilling, protective cap, probe quality certificate and Instruction manual.

HI7640 - 1 8 z z

Choose your configuration:	
1	Galvanic sensor
8	Smart probe, with RS485 connection
zz	00, 05, 10, 15, 25, 50 attached cable length (meters) The HI7640-1800 is supplied without cable.

HI7640-58 Series

Optical Dissolved Oxygen Industrial Smart Probe

The HI7640-58 series are optical dissolved oxygen probes with HI764113-1 DO Smart Caps for measurements of dissolved oxygen.These probes are designed to be paired with the Hanna Instruments HI510 Universal Process Controller. When paired with the controller, the system provides accurate DO measurements auto-compensated for barometric pressure, salinity (manually set), and temperature.

Suitable for control applications in municipal and industrial wastewater treatment, where optimizing oxygen transfer is a key element, the probe can be installed directly in-line, immersed in a tank, or in a flow cell installation.

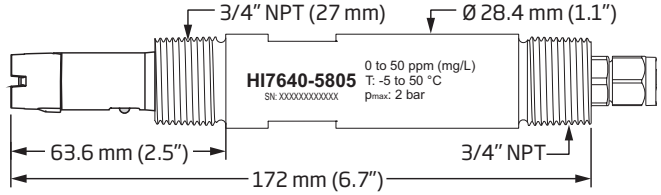
Principle of Operation

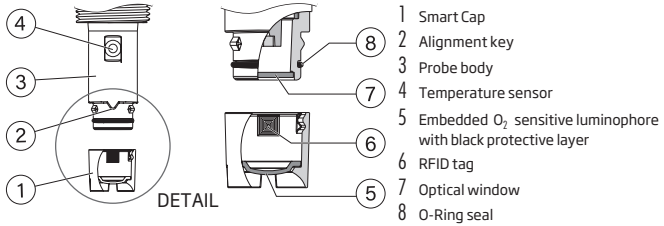
The Smart Cap contains pre-loaded calibration coefficients that are automatically transmitted to the probe. The Cap stores data in a RFID tag. If caps are switched between probes, no information will be lost. The Smart Cap is locked in place on the optical probe and includes the immobilized O_2 sensitive luminophore with rugged insoluble black oxygen permeable protective layer.

Over time, the sensor's optical components can age but are compensated for by using the reference signal to compensate the measuring path. As a result, the sensor provides accurate DO measurements over long periods of time without the need for frequent calibration.

- Factory calibrated Smart Cap
- 3/4" NPT external thread at both ends
- Built-in temperature sensor
- Digital probe the stores model, firmware, serial number, calibration information and Smart Cap data (serial number, installation date)
- Low maintenance (no electrolyte refill or membrane replacement)
- Measurement reliability independent of flow rate
- Reduced response time
- Stable readings even when oxygen concentration is low

Dimensions





Specifications

Specifications	
Range	0.00 to 50.00 mg/L (ppm) concentration 0.0 to 500.0 % saturation
Resolution	0.01 mg/L (ppm) 0.1% saturation
Accuracy	±1.5% of reading ± 0.01 mg/L from 0.00 to 20.00 mg/L ±5% of reading from 20.00 to 50.00 mg/L ±1.5% of reading ± 0.1% from 0.0 to 200.0% sat. ±5% of reading from 200.0 to 500.0% sat.
Calibration	One or two points at 100% and/or 0% or 8.26 mg/L and/or 0 mg/L in water-saturated air or zero-oxygen solution Single point process calibration, using a value entered by the user in % saturation or mg/L
Temperature	Range -5.0 to 50.0 °C (23.0 to 122.0 °F) Resolution 0.1 °C / 0.1 °F Accuracy ±0.3 °C / ±0.5 °F Calibration Single point offset in meter setting
Temperature compensation	Automatic, from -5.0 to 50.0 °C (23.0 to 122.0 °F)
Pressure compensation	% air saturation and mg/L (ppm) Automatic, from 420 to 850 mmHg
Salinity compensation	Automatic, from 0 to 70 g/L (set manually)
Body	ABS
Probe type	Optical DO
Sensor diameter	17 mm (0.7")
Maximum pressure	2 bar (29 psi) at 25 °C (77 °F)
Threaded connection	3/4" NPT external thread (both ends)
Ingress Protection Rating	IP68
Wetted parts	Smart cap material - Polypropylene Dome-shaped membrane - PMMA O-ring - Nitrile (NBR) rubber Temperature contact - Stainless steel
Protection rating	IP68
Cable length	See zz, Series Configuration

Ordering Information

Each probe is supplied with HI764113-1 DO Smart Cap with o-ring and protective cap, sachet with silicone grease, syringe, probe quality certificate and instruction manual.

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Choose your configuration:	
5	Optical DO sensor
8	Smart probe, with RS485 connection
zz	00, 05, 10, 15, 25, 50 attached cable length (meters) The HI7640-5800 is supplied without cable.

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