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- Algae Control
- Ammonia
- Calibration
- Chlorine
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- Cooling Tower Monitoring
- Dissolved Oxygen
- Interface Level
- Nitrate/Nitrite
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Royce Water Technologies P/L
ABN 21 110 057 399

Queensland
Ph 0428 571 234
Fax (07) 3857 1236

NSW
Ph 0408 079 073
Fax (02) 9629 7472

Victoria
Ph 0439 337 247
Fax. (03) 9886 3025

www.roycewater.com.au

/// HET63 Electrodeless Conductivity Transmitters

The HET63 Electrodeless conductivity transmitters combine modern technology with over 35 years of experience in building high quality sensors for liquid analysis to provide a range of competitively priced transmitters to cover a wide range of process applications.



- Custom IP66 enclosure.
- Available as head mounted or Wall mounted versions with detachable cables
- Large back lit multifunction display.
- Simple intuitive programming.
- On Line multilingual Help with text error messages
- Dual isolated 4-20mA and relay outputs.
- Relays can be configured for On/off, Time and Pulse Proportional.
- Digital inputs to allow external range changing
- Supplied complete with sensor and 'T' Piece. (Headmount version only)
- Measured process and temperature can be displayed together as can the corresponding 4-20mA output.
- Detachable sensors on all variants for easy maintenance.
- Cable termination for supply and outputs via detachable connectors, no need to open enclosure
- Low voltage operation 15-30v AC/DC
- Measurement of conductivity, % solution concentration, salinity and temperature
- Low Maintenance
- Ideal for Cooling Tower Bleed, Rinse Water and Solution Concentration Applications
- Preset curves stored for common chemicals and salinity
- Custom curve from 2 to 9 points can be entered.

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Two different options of the HET63 transmitter will be available with the Base model offering a single industry standard 4-20mA output.

The Advanced HET63 will offer two 4-20mA outputs enabling the process temperature to also be measured and transmitted as well as either the conductivity or solution concentration value.

The Advanced HET63 model will have 2 relay outputs for process control and also has 3 digital inputs for remote range changing via a plc.

Both of the HET63 versions are available as head mounted transmitters mounted on an ECS64 Electrodeless conductivity sensor as well as being available as a wall-mounting version with a detachable cable and separate LTH ECS20 series or ECS40 series Electrodeless conductivity sensor.

The HET63 is able to display the measured value either in conductivity in mS/cm or mS/cm or % concentration as well as displaying the process temperature in °C or °F.

The 2 off independent relay outputs can be allocated to either process or temperature measurement, with on/off control, variable hysteresis and time delays along with time and pulse proportional relay operation that is all configurable from the user menu.

Relays can also be programmed to energise on a variety of different functions including errors, instrument status, e.g. off-line/calibration mode, or if a dose alarm time has been exceeded.

Up to 2 industry standard, isolated outputs provide retransmission of the measurement as 0/4-20 mA signals and can be configured to represent process measurement or temperature.

The HET63 has been designed with two levels of programme complexity to cater for both novice and experienced instrument operators.

All cable connections to the HET63 are by detachable connectors with no need to open the HET63 enclosure.

On-line HELP facilities consist of a series of text error messages which are displayed when programming is incorrect, or if a sensor is not reading a sensible value for the instrument set-up.

A further enhancement is multi-level security, where day to day operator access can be limited to viewing data and settings only, while allowing full access to the instrument programmer.

Configuration data can be saved in one of two independent back-up locations, which can be used for fast reconfiguration, emergency restoration of settings, recovery after tampering by unauthorised operators, etc. Multilingual text displays can be selected with a choice of English, French, Spanish and Italian.

The HET63 can also display the current outputs as a bar graph as an alternative to showing a digital displayed value. It is possible to display either current output A, current output B, either current outputs or alternating in the bar graph mode. The mode of display can be changed under the configuration menu.

Both measurement inputs and current output can be individually calibrated from the front panel. For applications requiring accurate measurements it is possible to optimise the instrument reading to either a standard solution or a titrated solution concentration. An off-line facility allows the instrument to be adjusted without disturbing external processes by de-energising the set point relays and holding the current output(s) at the last on-line value.

The HET63 also has a simulate mode enabling the user to test the operation of the set point and current outputs.

Automatic temperature is available as standard on all models. For applications where temperature compensation is not required it can be switched out.

Specification

Measurement input	ECS20, ECS40 or ECS60 Series Electrodeless conductivity sensor.	Current output (1 standard, 2 optional)	Select 0-20mA or 4-20mA, fullyisolated to 2kV. (750 Ohm Max. load). Expandable up to 5% of any operating range (mS, %, °C) and offset anywhere in that range. Operator adjustments: +1mA zero and ±1mA span for remote monitor calibration.
Cell constant	0 - 10.0 for other sensors than adjustment those shown above.	Set point/alarm relays (2 optional)	Relays can be configured to operate at set points or on alarm conditions. Relays have volt free changeover contacts rated at 5A 30V DC / 5A 250V AC (non-inductive). Red LED's indicate relay energised. <i>Set point modes:</i> Fully configurable set points (mS, % and °C) On/Off, Time Proportioning, Pulse Proportioning, and Band modes selectable for up to three relays. Adjustable delay timers up to 10:00 mm:ss in the On/Off mode. Hysteresis 0 to 9.9% in the On/Off mode. Adjustable dose alarm timer up to 90:00 mm:ss in all modes Adjustable cycle time, and proportional band in the proportional modes. <i>Alarm modes:</i> Relays can be configured to energise on: any error, off-line, calibration error, dose alarm, sensor error
Range of measurement	0 to 999.9µS/cm, 9.999, 99.99 and 999.9mS/cm. 0 to 16.00% NaOH 0 to 30.00% NaCl 0 to 15.00% HCl 0 to 25.00% H2SO4 0 to 25.00% H3PO4 0 to 41.00ppt Salinity 0 to 99.9% Custom from 2 to 9 points can be entered		
Range selection	Internal single or auto range, or external range selection via digital inputs.		
Accuracy	±1% of range		
Linearity	±0.1% of range		
Repeatability	±0.1% of range		
Operator adjustment	Solution ±20% offset Conductivity ±10% slope		
Connection cable	Up to 10m 54H cable		
Temperature sensor	PT1000 RTD input. Temperature sensor can be mounted in the sensor or separately.		
Temperature range	-50°C to +300°C. (-58 to+572°F), resolution 0.01°C		
Temperature accuracy	±0.2°C		
Operator adjustment (temperature)	± 50.0°C, or ± 122°F		
Temperature compensation type	Automatic or manual 0 to 100°C, base 20 or 25°C (conductivity only), slope 0 to 9.9%/°C.		
Off-line facility (for calibration and commissioning)	-20°C to +50°C (-4°F to +122°F) for full specification.		
Ambient temperature variation	±0.01% of range/°C (typical).	Switches	Four tactile feedback push buttons
Display	Custom backlit LCD module.4 digit + sign main display, 3x2 characters for units indication, and 16 characters for information and programming.	EMC : Immunity	BS EN 50082-2 1995
Digital input	3-bit digital input for remote selection of range.	EMC : Emissions	BS EN 50081-1 1992
		Safety	Designed and manufactured in accordance with BS EN 61010-1 1993
		Power Supply	15 - 30V AC or DC at 200mA
		Head Mount Housing	Conductive ABS blue plastic, rated IP66
			Weight: 600g (instrument only)
			Dimensions: 100x116x145mm (h,w,d) excluding connectors



Order Codes

Part No **Model**

- 1140** HET63 Wall mounting transmitter complete with mounting kit, single 4-20mA output.
- 1141** HET63 Advanced Wall mounting transmitter complete with mounting kit, 2 x 4-20mA outputs & 2 x relay outputs
- 1134** HET63 Head mounting transmitter complete with ECS64T sensor & PVC tee piece. Single 4-20mA output.
- 1136** HET63 Head mounting transmitter complete with ECS64T sensor & PVC tee piece. Single 4-20mA output.
- 1141** HET63 Advanced Wall mounting transmitter complete with mounting kit, 2 x 4-20mA outputs & 2 x relay outputs.
- 1135** HET63 Advanced Head mounting transmitter complete with ECS64T sensor & PVC tee piece. 2 x 4-20mA outputs & 2 x relay outputs.
- 1137** HET63 Head mounting transmitter complete with ECS64T sensor & PVC tee piece. 2 x 4-20mA outputs & 2 x relay outputs.
- 134/002** Spare pair of Wall mounting brackets 5 Metre Electrodeless conductivity sensor
- 138/332** connection cable for use with wall mount
- 138/333** HET63 transmitter and ECS/40 series sensors.
- 1138/004** 10 Metre Electrodeless conductivity sensor connection cable for use with wall mount
HET63 transmitter and ECS/40 series sensors.
ECS64T Replacement sensor assembly

* Please refer to the LTH Electrodeless conductivity price list for full details on the different Electrodeless sensor options for use with the wall-mounting transmitter.