

Communicator for *HiQDT* pH, ORP, D.O., ISE & EC Sensors

- Lightweight portable 9V battery powered handheld communicator calibrates & configures **HiQDT smart digital RS485 MODBUS RTU sensors** at any location.
 - Up to 30 hours total time in use with Lithium 9V battery (15 hours for alkaline)
- Node of sensor can be found with built-in scanning feature if not known. Node of sensor can be modified with node changing feature after scanning.
- The following values are stored in non-volatile EEPROM memory inside sensor board for complete installation portability & hot-swap use:
 - Offset calibration of temp for pH, ORP, Conductivity, D.O. & ISE sensors
 - Offset calibration of process value for pH, ORP and Ion Selective (ISE) sensors
 - Acidic slope for when reading < pH 7 & Alkaline slope when reading > pH 7
 - Zero dry in air offset calibration for conductivity (EC) sensors
 - Slope calibration (Gain) for conductivity (EC) sensors
 - Slope calibration (mV/ppm) for dissolved oxygen (D.O.) sensors
 - Slope calibration (mV/pION) for Ion Selective (ISE) sensors
 - The max & min °C in service & total time in use (energized)
 - Serial & Item Number & Build Date stamped for traceability
- Calibrations values & time since that 'Cal' performed displayed using 'View' key
- Intelligent software on communicator auto-detects sensor type connected.
- Quick disconnect cables up to 1,000 meters (3,280 feet); NEMA 6P & IP67 rated waterproof HiQ4M & HiQ4F snap connectors for rugged field use
- Input Data Ranges & Max Resolution for pH and ORP Measurements:
 - pH range of -2 to +16 with 0.001pH resolution
 - ORP range of ±1000 or ±2000mV; 0.1mV resolution
 - D.O. range 0.00-150.00 ppm (0.0-1,500.0%); 0.01mV resolution
 - Conductivity Ranges for K=0.01/cm to K=20.0/cm Cells:
 - Standard Range Mode up to 0-400,000 microSiemens/cm
 - High Range Mode up to 0-4,000,000 microSiemens/cm
 - Ultralow Range Mode up to 0-4,000 microSiemens/cm
 - Computed Conductivity Unit Ranges
 - Salinity 0-50.000 PSU | TDS 0-100,000 ppm
 - Resistivity 0-20.000 MegaOhms
 - Ion Selective (ISE) ppm & kilo-ppm ranges are 0-10, 0-100 or 0-999
 - kilo-ppm ranges correspond to 0-10,000, 0-100,000 or 0-999,000 ppm
 - Temperature range of -40 to +210 °C; 0.1°C resolution
- Perform 1-point offset calibration anywhere in the range for pH or ISE sensors
- Slope calibrations for pH sensors automatically assigned for acidic (-2 to +7) or alkaline (7 to 16) pH ranges yielding a 3-point point calibration scheme with a dual slope for optimal accuracy at any pH (can be very important for batch systems)
- Separate slope calibration (a.k.a. gain or span) is performed for standard range mode & high range mode operation on the conductivity sensors ensuring the best possible accuracy for any measurement range mode when used in the field
- D.O. sensor calibration is fully automated dry in air (no solutions needed)
- Offset calibrations only for ORP measurement and temperature.
- All process values sent (pH, ORP, Conductivity, ISE or DO) always include integral calibration values and Automatic Temperature Compensation (ATC)
- Can perform in-situ offset calibrations & spot measurement in the field



Handheld Communicator (HHC) has 3-digit display & 16 LEDs to show analytic data & readings as well as to calibrate & configure sensor. Programming is done with 4 keys. 'Mode' key toggles & navigate to each LED. 'Up' or 'Down' buttons scroll options & adjust values. 'Mode' key makes selections & saves entries. 'View' key used to provide additional information for the given LED mode (see manual for specifics in each LED).



HHC with PN 6353-HiQDT-STUB Slurry Resistant "STUBBY" MODBUS RTU Smart Digital pH Sensor compact configuration particularly ideal for portable field use.