

# SC1000 Multi-Parameter Universal Controller

## Applications

- Wastewater
- Drinking Water
- Power
- Industrial Water



## A fully modular system consisting of a display module and one or more probe modules.

### More Confidence in Your Instrument's Performance

Available exclusively on the SC1000 controller, Prognosys predictive diagnostics uses patented multivariable diagnostic software to read multiple inputs from your instrument and alert you to the instrument's overall performance. An easy-to-read dashboard provides instant indication of measurement reliability and service requirements.

### Plug and Play Operation

There's no complicated wiring or set up procedures with the SC1000 controller. Plug any Hach digital sensor into a Probe Module and it's ready for use. No special ordering or software configuration is needed.

### Communication Options to Fit Any Application Need

The SC1000 controller features state-of-the-art Modbus TCP/IP communications protocol for seamless integration into a network of devices that support TCP/IP sockets. Use a standard Ethernet cable or connect wirelessly using GSM/GPRS to communicate with your SCADA, PLC or other network. The SC1000 also offers up to 12 analog outputs for measured values and up to 12 analog or digital values from non-digital sensors.

### Expandable and Upgradable

The SC1000 controller can adapt to your needs. Add or change probes without having to change the controller. Plus, with a single Display Module, additional Probe Modules and associated sensors can be added or removed depending on operational needs. Fully upgradable software ensures that this system will not be obsolete. Hach service plans are available.

## Technical Data\*

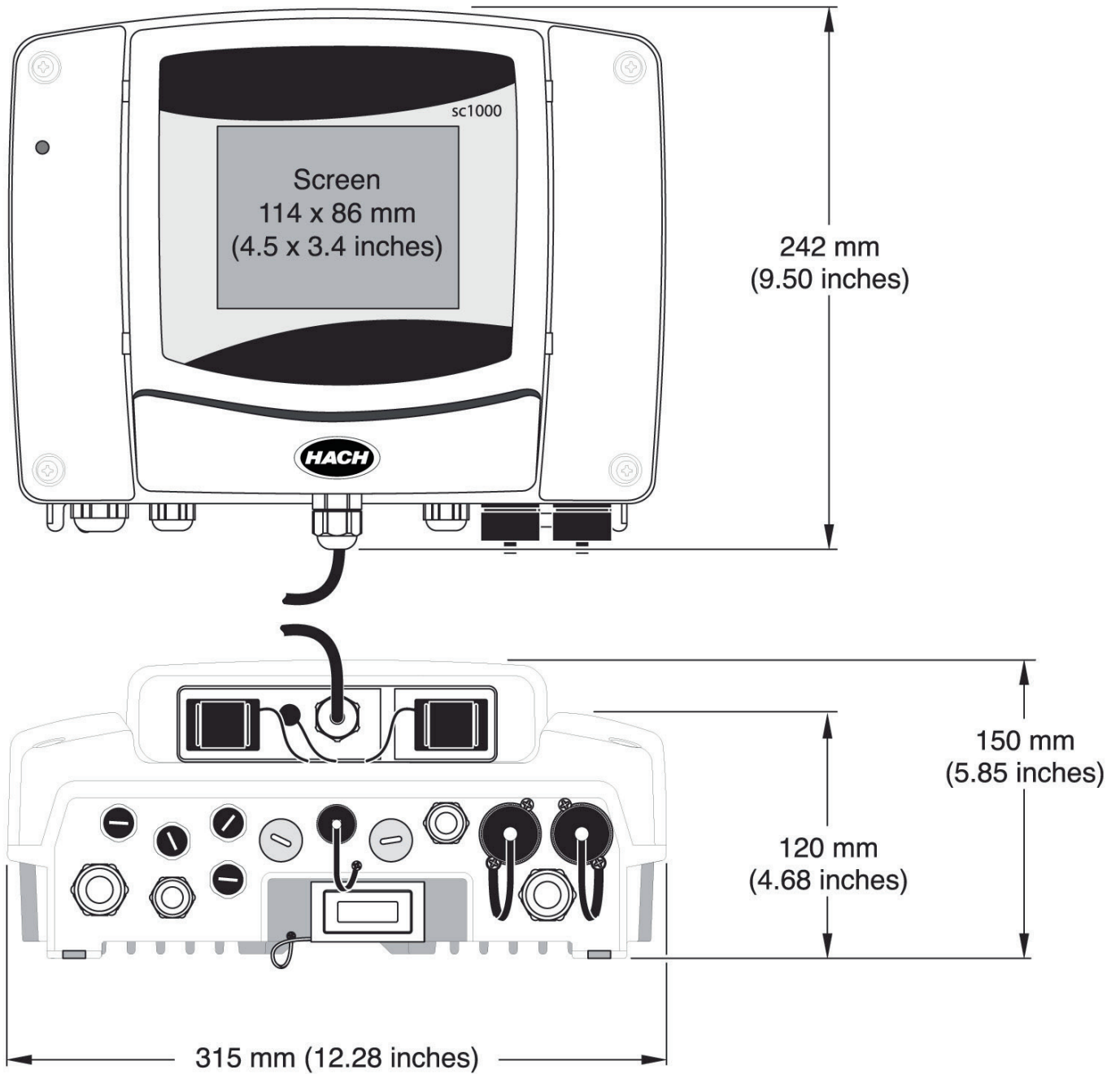
<b>Operating Temperature Range</b>	-20 to 55 °C (-4 to 131 °F), 0 to 95% relative humidity, non-condensing
<b>Storage Conditions</b>	-20 to 70 °C (-4 to 158 °F), 0 to 95% relative humidity, non-condensing
<b>Power Requirements (Voltage)</b>	100 - 240 V AC, 24 V DC
<b>Power Requirements (Hz)</b>	50/60 Hz
<b>Display</b>	¼ inch VGA graphical backlit TFT color Glas/Glas-Touch screen, high resistance 320 x 240 pixels
<b>Display Viewing Area</b>	11.4 x 8.6 cm (4.5 x 3.4 in)
<b>Alarm</b>	Low alarm point, low alarm point deadband, high alarm point, high alarm point deadband, off delay, and on delay
<b>Relays</b>	Up to four SPDT, user-configurable contacts rated 100 to 230 VAC, 5 Amp resistive maximum per probe module. Additional relays are available with additional probe modules.
<b>Inputs</b>	Up to 12 analogue 0-20 mA, maximum impedance 500 Ohms per probe module. Additional inputs are available with additional probe modules.
<b>Output</b>	Up to 12 analogue 0/4-20 mA, maximum impedance 500 Ohms per probe module.  Additional analogue outputs with additional probe modules. Optional digital communications via Modbus (RS485) and Profibus DP/V1.
<b>Analog Output Functional Mode</b>	PID, high/low phasing, setpoint, deadband, overfeed timer, off delay, on delay

<b>Communication</b>	Modbus® (RS485): Advanced communications/networking with PLC or SCADA system directly from analyzer  Profibus® DP/V1 (certified)  GSM/GPRS Quad-band cellular module (FCC and IC approved, EU and US only)  Ethernet service port, RJ45, 10 MB/s
<b>Mounting Configurations</b>	Surface, panel, and pipe (horizontal and vertical) with optional sun shield
<b>Enclosure Rating</b>	IP65
<b>Material Enclosures</b>	ABS (display module) and metal (probe module) enclosure with corrosion resistant finish
<b>Dimensions (H x W x D)</b>	250 mm x 315 mm x 150 mm
<b>Certifications</b>	North American Certifications:  cTUVus to UL 61010A-1 and CSA C22.2 No. 1010.1  FCC ID QIPMC56 / IC ID 267W-MC56  European Certifications:  CE per 73/23/EEC and 89/336/EEC  TUV-GS to EN 61010-1  EN 61326 Amd's 1 & 2
<b>Weight</b>	Approximately 14.33 lbs. (6.5 kg) (depending on configuration)

\*Subject to change without notice.

## Dimensions

The SC1000 controller unit can be installed on a pole, wall, or a floor stand.  
No tools are needed to connect the controller unit to any Hach digital sensor.



## Order Information

### SC1000 Display Modules

- LXV402.99.00002** SC1000 Display Module
- LXV402.99.01002** SC1000 Display Module with GSM
- LXV402.99.10002** SC1000 Display Module with Modbus® TCP/IP Protocol
- LXV402.99.12002** SC1000 Display Module with Modbus® TCP/IP and GSM/GPRS Protocols

### SC1000 Probe Modules

- LXV400.99.1R572** SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, 4x Relays, 100-240 V AC with Conduits
- LXV400.99.1B572** SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, Modbus® RS485, 4x Relays, 100-240 V AC with Conduits
- LXV400.99.1F572** SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, Profibus® DP, 4x Relays, 100-240 V AC with Conduits
- LXV400.99.1R582** SC1000 Probe Module, 6 Sensors, 4x 4-20mA Out, 4x 4-20mA In, 4x Relays, 100-240 V AC with Conduits
- LXV400.99.1H082** SC1000 Probe Module, 6 Sensors, Prognosys, Modbus® RS485, 100-240 V AC with Conduits
- LXV400.99.1G082** SC1000 Probe Module, 6 Sensors, Prognosys, 100-240 V AC with Conduits

*Note: Additional Probe Module configurations are available.  
Please contact your local Hach representative.*

### Network and Communication Cards

- YAB021** SC1000 Internal Modbus® RS485 Card
- YAB020** SC1000 Internal Profibus® DP Card
- YAB076** SC1000 Internal Relay Card
- YAB018** SC1000 Internal 0/4-20 mA Analog/Digital Inputs Card
- YAB019** SC1000 Internal 0/4-20 mA Analog/Digital Outputs Card

### Accessories

- 6169900** SC1000 Panel mount kit
- LZX958** SC1000 Sun shield
- LZY598** Modbus® TCP/IP License kit for field upgrade  
(Display Module serial number required when ordering)
- LZY488** SC1000 Bus cable for flexible installations (order per foot)
- LZY489** SC1000 Bus cable for fixed installations (order per foot)
- 5448800** North American power cord kit with strain relief, 125 V
- 5448900** European power cord kit with strain relief, 230 V



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