



## Applications

- Wastewater
- Drinking Water
- Industrial
- Other

# Digital Controller SC4500



## Ready for Now. Ready for the Future.

Technologies are advancing rapidly, providing new levels of convenience, accuracy, and efficiency. Which is exactly why the SC4500 Controller from Hach® is designed to integrate easily into your current system while allowing you to upgrade as your capabilities advance, without having to replace inventory. With a wide range of analog and digital connectivity options and the availability of intelligent instrument and data management features, the SC4500 unlocks the future, today.

### Easy Adoption

The familiar experience of a modern touchscreen, the ability to use your current Hach sensors, and the same footprint as the SC200, make installation and integration of the SC4500 Controller seamless.

### No Time for Downtime

The SC4500's built-in predictive diagnostic software ensures measurement confidence and reduces the risk of unexpected equipment downtime by enabling proactive maintenance planning via MSM, including step-by-step instructions.

### The Connectivity Options You Need

The Controller provides local communication to SCADA or a PLC, as well as remote access through a secure, cloud-based connectivity option to integrate with Claros, the Water Intelligence System from Hach. From analog and advanced digital protocols to Wi-Fi, cellular or LAN, the SC4500 gives you the flexibility to adapt in a rapidly changing world.

The power of Hach's real time controls (RTC) software is now hosted on the SC4500 controller. Take advantage of the potential energy, chemical and labor savings, from a simple and environmentally friendly solution.

## Technical Data\*

<b>Description</b>	Microprocessor-controlled and menu-driven controller that operates the sensor
<b>Dimensions</b>	½ DIN - 144 x 144 x 192 mm (5.7 x 5.7 x 7.6 in.)
<b>Weight</b>	1.7 kg (controller only, w/o modules)
<b>Display</b>	3.5-inch TFT colour display with capacitive touchpad
<b>Enclosure waterproof rating</b>	UL50E type 4X, IEC/EN 60529-IP 66, NEMA 250 type 4X Metal enclosure with a corrosion-resistant finish
<b>Operating temperature range</b>	-20 to 60 °C (-4 to 140 °F) (8 W (AC)/9 W (DC) sensor load) -20 to 45 °C (-4 to 113 °F) (28 W (AC)/20 W (DC) sensor load) Linear derating between 45 and 60 °C (-1.33 W/°C)
<b>Storage conditions</b>	-20 to 70 °C, 0 - 95% relative humidity, non-condensing
<b>Altitude</b>	3000 m maximum
<b>Installation category</b>	Category II
<b>Indoor/Outdoor</b>	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof
<b>Pollution degree</b>	4
<b>Protection class</b>	I, connected to protective earth
<b>Power requirements</b>	AC controller: 100-240 VAC ±10%, 50/60 Hz; 1 A (28 W sensor load) DC controller: 24 VDC +15% -20%; 2.5 A (20 W sensor load)
<b>Measurements</b>	Two device digital SC connectors
<b>Relays</b>	Two relays (SPDT); Wire gauge: 0.75 to 1.5 mm <sup>2</sup> (18 to 16 AWG) AC controller Maximum switching voltage: 100 - 240 VAC Maximum switching current: 5 A Resistive/1 A Pilot Duty Maximum switching power: 1200 VA Resistive/360 VA Pilot Duty DC controller Maximum switching voltage: 30 VAC or 42 VDC Maximum switching current: 4 A Resistive/1 A Pilot Duty Maximum switching power: 125 W Resistive/28 W Pilot Duty
<b>Communication (optional)</b>	Analog: Five 0-20 mA or 4-20 mA analog outputs on each analog output module Up to two analog Input modules (0-20 mA or 4-20 mA). Each input module replaces a digital sensor input. Digital: Profibus DPV1 module Modbus TCP Profinet IO module Ethernet IP module
<b>Network connectivity</b>	LAN: Two Ethernet connectors (10/100 Mbps) Cellular: External 4G Wi-Fi
<b>USB Port</b>	Used for data download and software upload. The controller records approximately 20,000 data points for each connected sensor.
<b>Compliance certifications</b>	CE, ETL certified to UL and CSA safety standards (with all sensor types), FCC, ISED, KC, RCM, EAC, UKCA, SABS, C (Morocco)
<b>Warranty</b>	24 months
<b>Compatible network technologies</b>	GSM 3G/4G (e.g. AT&T, T-Mobile, Rogers, Vodafone etc.) CDMA (e.g. Verizon)

\*Subject to change without notice.

### Compatible Instruments / Software Version (Release Year)

Compatible Sensors and Analysers / Software Version (Release Year)

Amtax sc / V2.30 (2018) or higher

A-ISE sc / V1.02 or higher

AN-ISE sc / V1.08 (2013) or higher

N-ISE sc / V1.02 or higher

Nitratax clear sc, Nitratax eco sc, Nitratax plus sc / V3.13 (2013) or higher

NT3100sc/NT3200sc

Phosphax sc / V2.30 (2018) or higher

Phosphax sc LR/MR/HR / V1.01 (2018) or higher

TSS sc / V41.73 (2013) or higher

Solitax sc / V2.20 (2013) or higher

TU5300sc, TU5400sc / V1.34 (2017) or higher

SS7 sc (in Bypass) / V1.01 (2006) or higher

Ultraturb sc / V3.06 (2017) or higher

1720E / V2.10 (2006) or higher

Sonatax sc / V1.15 (2016) or higher

CL17sc / V2.7 (2019) or higher

CL10sc / V1.14 (2013) or higher

9184sc, 9185sc, 9187sc\* / V2.03 (2013) or higher

Uvas plus sc / V3.01 (2017) or higher

LDO 2 sc\* / V1.22 (2013) or higher

3798sc\* / V2.03 (2013) or higher

3700sc + Inductive Conductive Digital 6120800 / V3.00 (2017) or higher

3422sc + Contacting Conductive Digital 6120700 / V3.00 or higher

3700 analog + Conductivity Module LXZ525.99.D0004

3400 analog + Conductivity Module LXZ525.99.D0004

pHD sc\*, pHD-S sc / V3.10 (2016) or higher

1200-S sc\* / V2.04 (2013) or higher

pHD analog + Digital Gateway 6120500 / V3.00 (2017) or higher

pHD analog + pH/ORP Module LXZ525.99.D0003

RC and PC analog sensor + Digital Gateway for conventional analog pH and ORP sensors 6120600 / V3.00 (2017) or higher

RC and PC analog + pH/ORP Module LXZ525.99.D0003

8362sc\* / V3.00 (2017) or higher

Polymetron pH/ORP analog + Ultrapure pH/ORP Module LXZ525.99.D0007

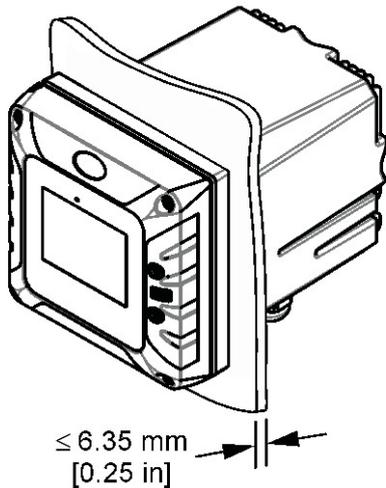
Polymetron Conductivity analog + Ultrapure Conductivity Module LXZ525.99.D0006

GS1440 and GS2440EX Sensors H<sub>2</sub>S

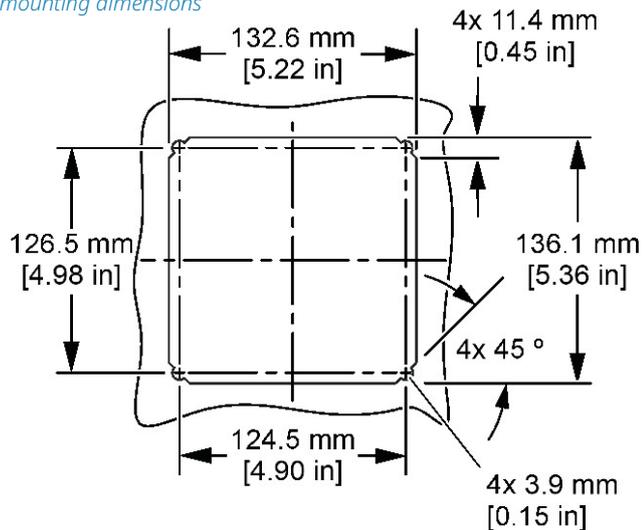
FP360 sc / V1 or higher

*\*Hardware Version 1 of instrument is not supported*

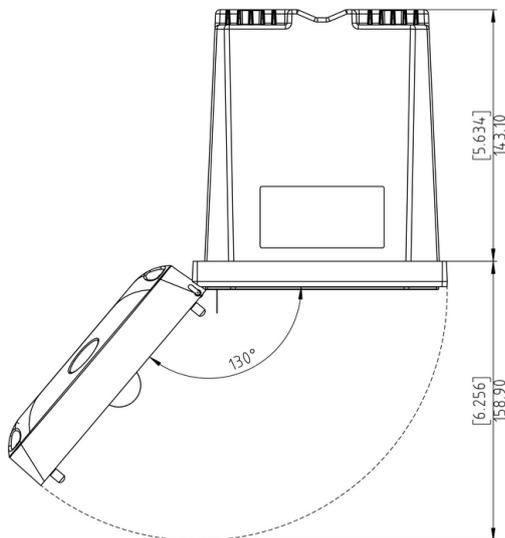
### Dimensions



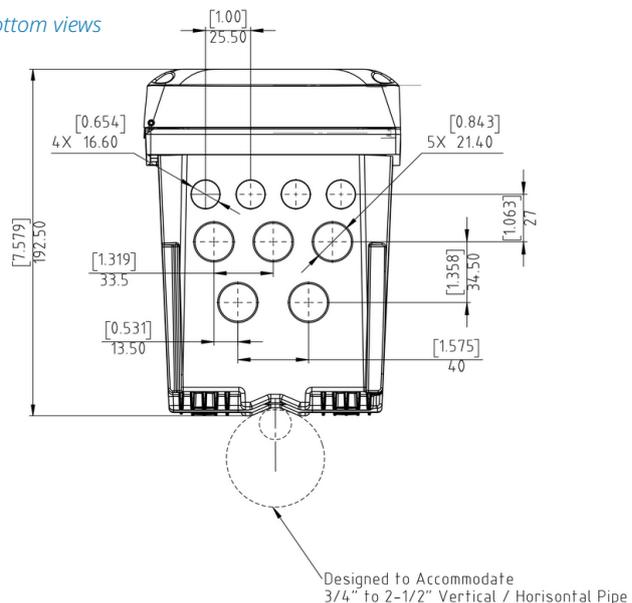
Panel mounting dimensions



Top and bottom views



Door Opening Details



## Order Information

### Controllers

<b>LXV525.99A11551</b>	SC4500 Controller, Prognosis, 5x mA Output, 2 digital Sensors, without plug
<b>LXV525.99C11551</b>	SC4500 Controller, Prognosis, 5x mA Output, 2 digital Sensors, EU plug
<b>LXV525.99A11541</b>	SC4500 Controller, Prognosis, 5x mA Output, 1 digital Sensor, 1 mA Input, without plug
<b>LXV525.99C11541</b>	SC4500 Controller, Prognosis, 5x mA Output, 1 digital Sensor, 1 mA Input, EU plug
<b>LXV525.99AA1551</b>	SC4500 Controller, Claros-enabled, 5x mA Output, 2 digital Sensors, without plug
<b>LXV525.99CA1551</b>	SC4500 Controller, Claros-enabled, 5x mA Output, 2 digital Sensors, EU plug
<b>LXV525.99AA1541</b>	SC4500 Controller, Claros-enabled, 5x mA Output, 1 digital Sensor, 1 mA Input, without plug
<b>LXV525.99CA1541</b>	SC4500 Controller, Claros-enabled, 5x mA Output, 1 digital Sensor, 1 mA Input, EU plug

### Accessories

<b>LXZ524.97.00042</b>	SC4x00 mA Input Module
<b>LXZ525.99.D0002</b>	SC4x00 mA Output Module (5 Outputs)
<b>LXZ525.99.C0002</b>	SC4500 Ethernet IP Upgrade Kit
<b>LXZ525.99.C0003</b>	SC4500 Modbus TCP/IP Upgrade Kit
<b>LXZ525.99.00026</b>	SC4500 Ethernet Cable M12 to M12 / C1D2, 10 m
<b>LXZ525.99.00017</b>	SC4500 USB Stick
<b>LXZ524.99.00004</b>	SC4x00 UV Protection Screen
<b>LXZ524.99.00005</b>	SC4x00 UV Protection Screen with Sunroof
<b>LXZ524.99.00033</b>	SC4x00 Sunroof Visor
<b>LXZ524.99.00036</b>	SC4x00 Mounting Hardware Sunroof with Visor
<b>LXZ524.99.00037</b>	SC4x00 Sunroof with Visor
<b>LXZ525.99.D0003</b>	SC4500 pH/ORP module
<b>LXZ525.99.D0004</b>	SC4500 Conductivity module
<b>LXZ525.99.D0006</b>	SC4500 Ultrapure pH/ORP module
<b>LXZ525.99.D0007</b>	SC4500 Ultrapure Conductivity module

### Enable the Benefits of Smart Monitoring

This instrument connects to Claros, Hach's innovative Water Intelligence System. Claros allows you to seamlessly connect and manage instruments, data, and process – anywhere, anytime. The result is greater confidence in your data and improved efficiencies in your operations. To unlock the full potential of Claros, insist on Claros Enabled instruments.

### Hach Service Protects Your Investment

With Hach Service, you have a global partner who understands your needs and cares about delivering timely, high-quality service you can trust. Our Service Team brings unique expertise to help you maximise instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.



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