



# SC4500 Controller, Prognosys, LAN + mA Output, 1 digital Sensor + 1 Analog UPW pH/ORP Sensor, 100-240 VAC, with US plug

Product #:

ZAR Price:

LXV525.99E1B571

Contact Hach

### 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<sup>®</sup> 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.

#### Specifications

Altitude:	3000 m maximum
Analogue Output Functional Mode:	Linear, PID
Analogue Outputs:	mA Output
Classification:	1098402
Communication (optional):	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
Compatible Instruments:	Ethernet IP module 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 $H_2S$
	FP360 sc / V1 or higher
	*Hardware Version1 of instrument is not supported
Compatible network technologies:	GSM 3G/4G (e.g. AT&T, T-Mobile, Rogers, Vodafone etc.)
r	
	CDMA (e.g. Verizon)
Compliance Certifications:	CE. ETL certified to UL and CSA safety standards (with all sensor types), FCC, ISED, KC, RCM, EAC, UKCA, SABS, C # (Morocco)
Conduit Openings:	1/2" NPT conduit
Description:	Microprocessor-controlled and menu-driven controller that operates the sensor
Dimensions:	½ DIN - 144 x 144 x 192 mm (5.7 x 5.7 x 7.6 in.)
Display:	3.5-inch TFT colour display with capacitive touchpad
Enclosure rating:	UL50E type 4X, IEC/EN 60529–IP 66, NEMA 250 type 4X
	Metal enclosure with a corrosion-resistant finish
Indoor/Outdoor:	Metal enclosure with a corrosion-resistant finish Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof
Indoor/Outdoor: Installation category:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or
	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof
Installation category:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II
Installation category: Material Enclosures:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel
Installation category: Material Enclosures: Measurements:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel One digital SC connector one analog device connector
Installation category: Material Enclosures: Measurements: Mounting:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel One digital SC connector one analog device connector Wall, Pole, or Panel Mounting
Installation category: Material Enclosures: Measurements: Mounting:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel One digital SC connector one analog device connector Wall, Pole, or Panel Mounting LAN: Two Ethernet connectors (10/100 Mbps) Cellular: External 4G
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi
Installation category: Material Enclosures: Measurements: Mounting:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel One digital SC connector one analog device connector Wall, Pole, or Panel Mounting LAN: Two Ethernet connectors (10/100 Mbps) Cellular: External 4G
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel One digital SC connector one analog device connector Wall, Pole, or Panel Mounting LAN: Two Ethernet connectors (10/100 Mbps) Cellular: External 4G Wi-Fi -20 to 60 °C (-4 to 140 °F) (8 W (AC)/9 W (DC) sensor load)
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroof Category II Polycarbonate, aluminum (powder coated), stainless steel One digital SC connector one analog device connector Wall, Pole, or Panel Mounting LAN: Two Ethernet connectors (10/100 Mbps) Cellular: External 4G Wi-Fi -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)
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity: Operating temperature range:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi-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)
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity: Operating temperature range:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi-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)LAN + 5x mA Output
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity: Operating temperature range:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi-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)LAN + 5x mA Output4
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity: Operating temperature range: Outputs: Pollution Degree: Power requirements (Voltage):	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi-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)LAN + 5x mA Output4100-240 VAC ±10%, 50/60 Hz; 1 A
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity: Operating temperature range: Outputs: Pollution Degree: Power requirements (Voltage):	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi-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)LAN + 5x mA Output4100-240 VAC ±10%, 50/60 Hz; 1 AWith US plug
Installation category: Material Enclosures: Measurements: Mounting: Network connectivity: Network connectivity: Operating temperature range: Outputs: Pollution Degree: Power requirements (Voltage): Power supply: Protection Class:	Outdoor installation in direct sunlight or UV radiation requires UV protection screen and/or sunroofCategory IIPolycarbonate, aluminum (powder coated), stainless steelOne digital SC connector one analog device connectorWall, Pole, or Panel MountingLAN: Two Ethernet connectors (10/100 Mbps)Cellular: External 4GWi-Fi-20 to 60 °C (-4 to 140 °F) (8 W (AC)/9 W (DC) sensor load)Linear derating between 45 and 60 °C (-1.33 W/°C)LAN + 5x mA Output4100-240 VAC ±10%, 50/60 Hz; 1 AWith US plugI, connected to protective earth

	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
Sensor Input #1:	Digital
Sensor Input #2:	Analog UPW pH/ORP
Software available:	Non-Claros + Embedded Prognosys
Storage conditions:	-20 to 70 °C, 0 - 95% relative humidity, non-condensing
USB Port:	Used for data download and software upload. The controller records approximately 20,000 data points for each connected sensor.
Warranty:	12 months
Weight:	1.7 kg (controller only, w/o modules)
What's included?:	SC4500 Controller, Non-Claros + Embedded Prognosys, with US plug; includes mounting hardware

## What's included?

SC4500 Controller, Non-Claros + Embedded Prognosys, with US plug; includes mounting hardware