

# ST-765SS-NCL

## Inline Monochloramine + pH Multiparameter Sensor

### Description

The Pyxis ST-765SS-NCL is a stainless-steel multi-parameter membrane-less sensor based on unique electrochemical principles to determine Monochloramine and pH content in water. This sensor incorporates Pyxis' advanced technology in the field of bare-gold electrochemical detection. The ST-765SS-NCL can perform temperature and pH compensation for the measurement of Monochloramine based on conditions present in the application of use. This unique internal compensation results in a highly accurate Monochloramine measurement consistent with Indophenol methodology as high as a pH of 9.0 and is compliant with USEPA – 334.0 guidelines.

The ST-765SS-NCL sensor offers a replaceable, front loading reference electrode assembly (EH-765) that has been independently developed by Pyxis Lab eliminating the shortcomings associated with membranes and gel replacement while offering reduced polarization time on startup. The flat front-end design of the ST-765SS-NCL makes this platform less prone to contamination or fouling and is easy to clean. The ST-765SS-NCL sensor body is composed of 304 stainless steel and is well suited for aggressive environments.

The ST-765SS-NCL sensor offers 2x 4-20mA and RS-485 Modbus outputs and is Bluetooth 5.0 enabled when used in conjunction with the MA-CR Bluetooth Adapter. This four-electrode composite sensor provides three measured parameters including Monochloramine, pH and temperature with one sensor RS-485 Modbus output. ST-765SS-NCL is the best choice for potable water, secondary water supply, domestic water, and other clean water applications.

### Key Features

- Real-Time pH + Monochloramine (0-5ppm) Detection
- Dual 4-20mA Outputs (Oxidizer + pH) and RS-485
- Bluetooth Enabled when used with MA-CR Adapter Wireless uPyxis Calibration.
- Integrated RTD & pH Compensation to pH 9.0 of the Oxidizer Value
- Replaceable EH-765 Reference Electrode Assembly – Simple Maintenance



**ST-765SS-NCL**  
*Monochloramine + pH Sensor*

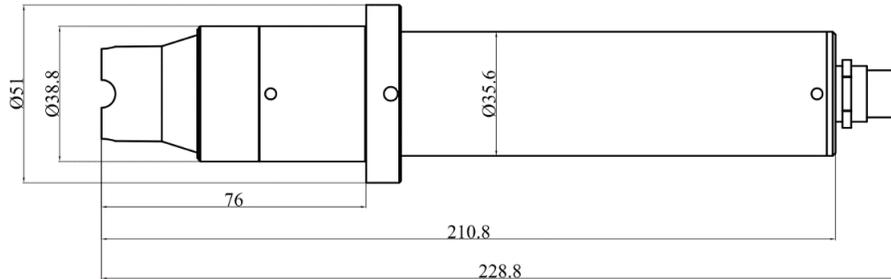


**EH-765**  
*Replacement Electrode  
for ST-765SS-NCL Sensors*

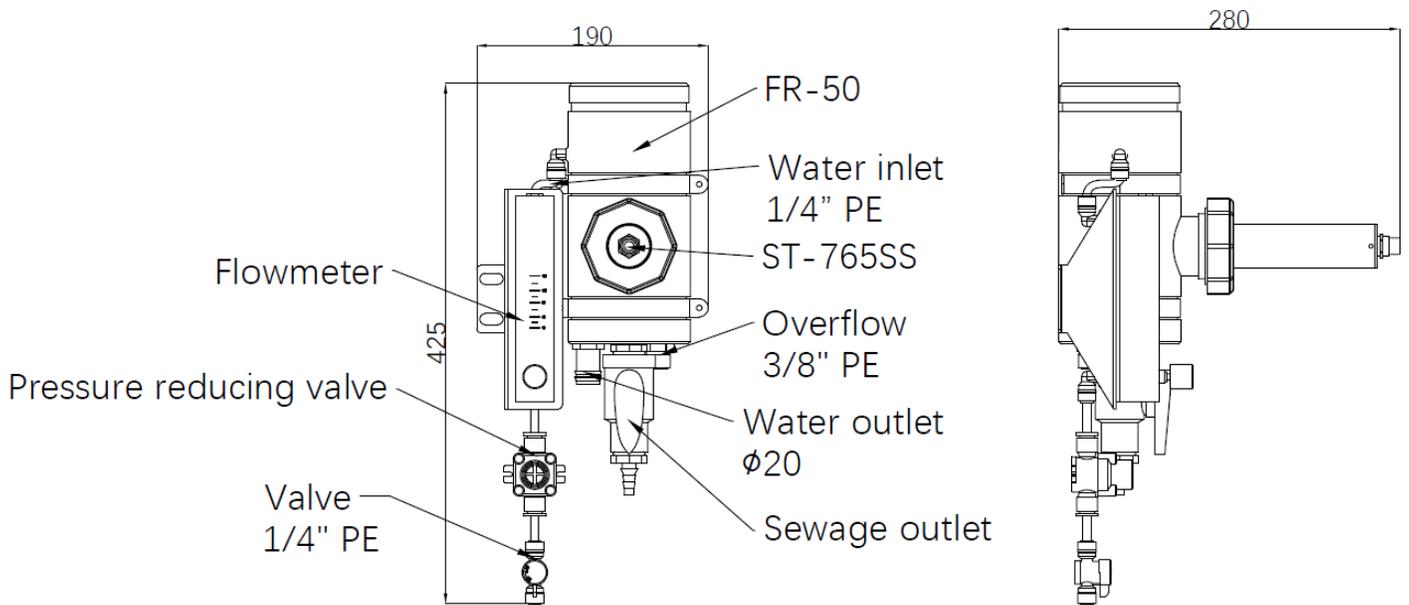
**Specifications of ST-765SS-NCL**

Item	ST-765SS-NCL
P/N	53623
Sensor Body Material	304SS
Oxidizer Range	0.00-5.00 ppm Monochloramine
Oxidizer Precision	± 0.01mg/L or 1% of the value w/pH compensation up to 9.0+
pH Range	0-14
pH Precision	±0.01 pH
FR-50 Sample Inlet Pressure	7.25 – 30 psi (0.05 – 0.2MPa)
FR-50 Installation	FR-50 Self-Regulating Flow Reservoir w/Rotameter & PRV - Included
FR-50 Minimum Flow Rate	600 mL/minute
FR-50 Maximum Flow Rate	1,800 mL/minute
FR-50 Sample Inlet	¼ - inch OD
FR-50 Sample Outlet	20mm - To Drain
FR-50 Overflow Outlet	20mm - To Drain
FR-50 Sewage Drain Outlet	½ - inch NPT
Power Supply	22 – 26VDC, Power Consumption 2W
Storage Temperature	-7 °C – 60 °C (20 – 140 °F)
Outputs	Dual Isolated 4 – 20 mA Analog Outputs + Isolated RS-485 Digital Output
Dimension (L x D)	Length 8.3 inch (210.8 mm), body diameter 1.4 Inch (35.6 mm)
Weight	530 g (1.16lbs)
Maximum Sensor Pressure	100 psi (6.9 Bar) – Sensor Only
Operating Temperature	4 °C – 49 °C (40 – 120 °F)
Wet Material	UPVC
Rating	IP67, Fully Dustproof & Waterproof
Selectivity	Non-Selective, cross sensitive to other oxidizing species
Compliance	EPA 334.0 / ISO 7393
Regulation	CE Marked / RoHS
Cables Included	MA-4.9CR Cable (8-Pin Adapters – 4.9ft) MA-1.5CR Cable (8 Pin Adapter / Flying Leads – 1.5ft)
Typical Electrode Service Life	2 Years
Electrode Warranty	6 Months
Sensor Body Warranty	13 Months

Dimensions of ST-765SS Series (mm)



Dimensions of FR-50 Flow Cell Assembly for ST-765SS Series (mm) – Sold Separately

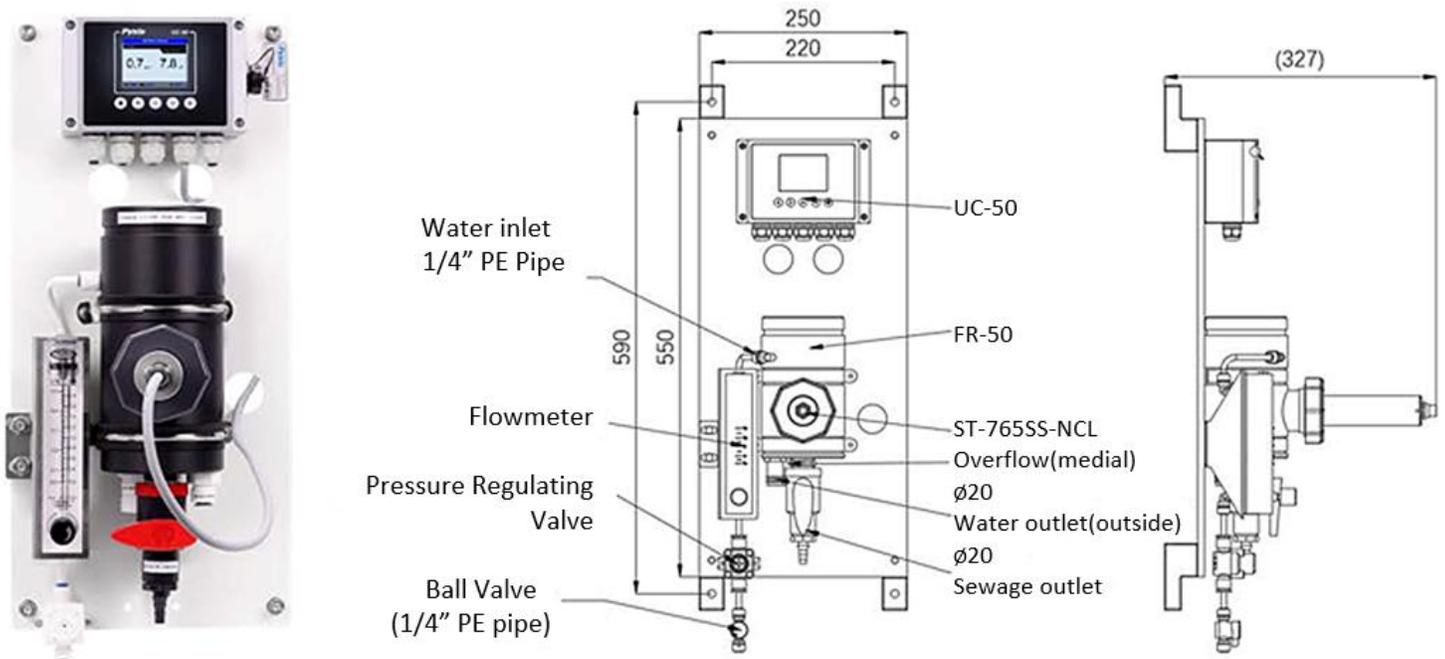


### IK-765SS-NCL (Monochloramine + pH + Temperature) Online Monitoring Panel

The IK-765SS-NCL is a pre-assembled Monochloramine + pH + Temperature analyzer consisting of the ST-765SS-NCL sensor with mounted FR-50 flow reservoir with rotameter and the UC-50 Display + Data Logging Terminal. These platform solutions offer real-time display, data logging and signal output capability of sample Monochloramine, pH and temperature. The UC-50 is a microprocessor display/data-logging terminal that has been preconfigured to connect Pyxis inline sensors with fully integrated calibration, scaling, and measurement protocol. When any Pyxis Lab sensor is connected to the UC-50 in RS-485 Modbus, the UC-50 automatically recognizes the sensor and configuration for immediate data display, data logging and communication. The user may also configure and calibrate the output signal and powered relay through the UC-50 controller's screen. The IK-765SS series detection system can be applied to a potable water piping network, secondary water supply and water quality monitoring of domestic and clean industrial applications.

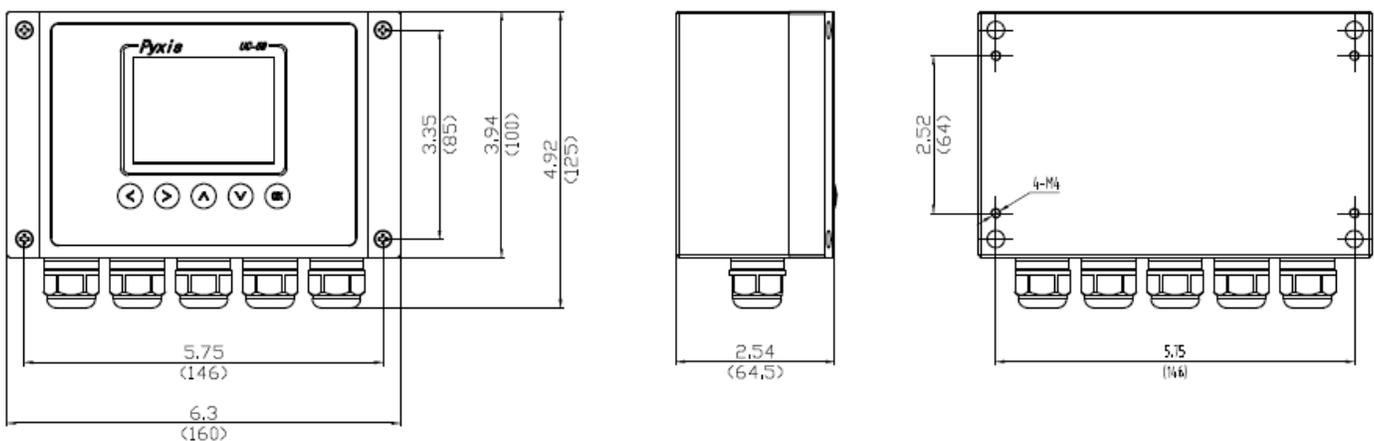
Item	P/N	Description
IK-765SS-NCL	42161	ST-765SS-NCL Sensor + FR-50 Flow Reservoir + UC-50 Display/Data Logger

### Image and Dimensions of IK-765SS-NCL (mm)



**Specifications of UC-50 Display/Data Logging Terminal**

Item	UC-50
P/N	43007
Power	110/220VAC 50/60 Hz, 0.6A
Display	2.8" Color 320 x 240 Resolution
Output	1 x 4-20 mA / RS-485 Modbus-RTU
Input	1 x 4-20 mA / RS-485 Modbus-RTU
Relay Output	One channel relay output – 5Watt Maximum
Data Storage	32 M Flash
USB	1 x USB host for data downloading
Dimension (L x W x D)	6.3-inch x 3.9-inch x 2.6-inch
Weight	4.6 lbs / 2.1 kg
Operation Temperature	32 – 122 °F (-0 – 50 °C)
Storage Temperature	-4 – 158 °F (-20 – 70 °C)
Humidity	5 – 95% No Condensation
Protection	IP-65
Regulation	CE, RoHS, UKCA

**Dimensions of UC-50 (mm/in)**


### uPyxis Mobile & Desktop APPS for Wireless Setup, Diagnostics & Calibration

The uPyxis APP manages all Pyxis portable meter and inline sensors on mobile and desktop devices, including Apple iPhones and Samsung Android smartphones. When connected to the Pyxis ST-765SS Series inline sensors, the uPyxis APP enables users to conduct a wireless probe calibration of pH and oxidizer from the touch of their smart device. The uPyxis direct calibration of the sensor eliminates unnecessary time wasted with calibrating the probe through the receiving controller and ensures the highest degree of accuracy and minimizes time spent in the field.

**\*Note\*** The uPyxis Mobile APP is evolving rapidly and users can find the latest version at no cost on Apple iStore or Google Play. The uPyxis Desktop APP may be downloaded at <https://pyxis-lab.com/support-2/>

For wireless access to all Pyxis devices via uPyxis, users will require the inline Bluetooth Adapter (P/N: MA-CR). Details can be found in the Order Information section of this Data Sheet.



#### Order Information

ST-765-NCL (Monochloramine + pH + Temperature Sensor w/Internal Compensation-Sensor Only)	53623
IK-765SS-NCL (Monochloramine+ pH + Temperature Analyzer)	42082

#### Optional / Replacement Accessories Information

	P/N
MA-CR (Bluetooth Adapter for use with Laptop or Desktop for uPyxis)	MA-CR
EH-765 (Replacement Electrode Head for ST-765SS-Series Sensors)	53061
FR-50 (FR-50 Flow Reservoir w/Rotameter & PRV)	50700-A01
MICRO-ROTAMETER ASSMBLY KIT (Replacement Micro-Rotameter 0-1,000mL/Min and PRV)	22876
MA-50CR (Extension Cable-50 feet)	50743
SP-200 OxiPocket™ (Pocket All-Oxidizing Disinfectants Colorimeter & Fluorometer)	50802
NH2C Reagent (100 pk - Indophenol Monochloramine Powder Pillows for use with SP-200 OxiPocket)	31036
Pyxis pH Calibration Combo Pack (4-7-10 Calibration Solution 3-Pack-500mL each)	57007
Zero Oxidizer Calibration Standard Solution (500mL Bottle)	20022
ST-SERIES PROBE CLEANING KIT	SER-01