

# Well Cap Groundwater Monitoring Station



## Overview

Sutron's Groundwater Well Cap leverages the power and reliability of the X-Link logger family to deliver a cost-effective, self-contained package to monitor groundwater.

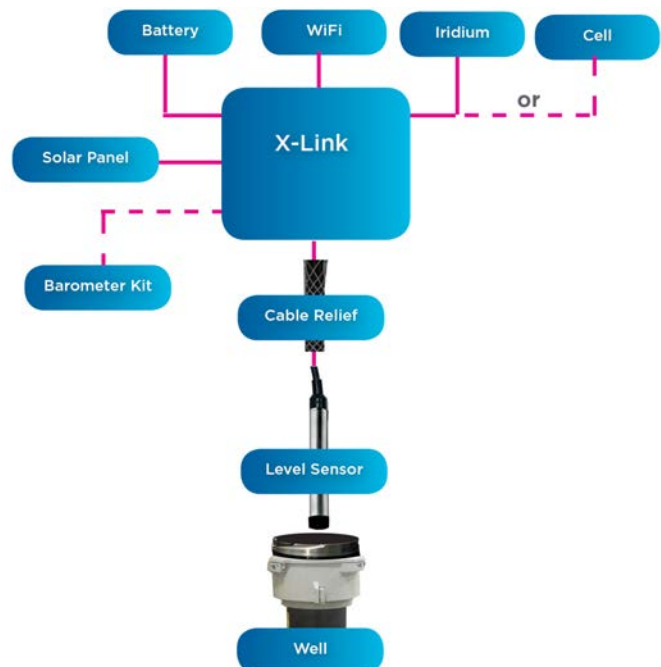
## Features

Sutron's Well Cap Groundwater Monitoring Station makes it easy to automate measurement of groundwater wells. The cap has the following features:

- ▶ Tamper-proof packaging
- ▶ Capable of measuring sensors over SDI-12, 4-20ma, and RS485
- ▶ Low power with integrated 4 Ahr battery for long term reliable operation
- ▶ Optional cell modem and dataplans
- ▶ Optional Iridium modem and dataplans
- ▶ Optional solar panels to reduce battery servicing intervals
- ▶ Mounts on NPS 2 (2.375", 60.33mm OD), 3 (3.5", 88.9mm OD) or 4 (4.5", 114.3mm OD) pipe
- ▶ ¼ hasp for customer provided lock
- ▶ Built-in Sutron X-Link logger/transmitter
- ▶ IP67 housing for battery/electronics/antenna with screwless access.
- ▶ Powder coated cast aluminum construction with ABS plastic dome.
- ▶ Hinged design provides access to sensors without opening electronics compartment
- ▶ Sensor hanger plate with room to insert electronic tapes or other calibration devices.
- ▶ Concealed bolts to fasten the cap to the well casing.
- ▶ Compatible with a variety of sensors with SDI-12 or analog output.
- ▶ 1"-diameter water level sensor plus desiccant should fit standard well pipes
- ▶ Optional solar panel for continuous operation
- ▶ **DIMENSIONS**  
**Diameter:** 8" max (20.32cm)  
**Height:** 12" (30.48cm)  
**Weight:** : 6.7 lb including battery & logger (3.04kg)



Application: Groundwater Monitoring



<b>Specifications Highlights</b> <i>See associated XLink Datasheets for Detailed Specifications &amp; Ordering Options</i>	
Measurement interval	1 to 24 hours
Measurements	16 supported
Analog Input	2 single-ended 2 differential 1 4-20 mA
Range	0-5 V
Resolution	.298 $\mu$ v
Accuracy @25°C	0.004% max
SDI-12	V1.3 compliant
Input voltage	8-16VDC (10V minimum for SDI-12 sensor support)
Current Consumption	0.5mA standby typical (all sensors unpowered)
Temperature	-40°C to +60°C
Humidity	0-95% non-condensing
Log Capacity	240,000 readings, flash memory
Dimensions	Dia: 8" max (20.32cm) Height: 12" (30.48cm)

**ORDERING DATA PLANS (GPRS & HSPA)**

**T-MOBILE GPRS SERVICE PLANS (DOMESTIC)**

TGPRS.ACT	Activation 1 time charge
TGPRS.1MB.PLAN	Monthly Plan, 1 MB
TGPRS.1MB.ADD	Overage charge / MB
TGPRS.5MB.PLAN	Monthly Plan, 5 MB
TGPRS.1GB.PLAN	Monthly Plan, 1 GB
TGPRS.100SMS.PLAN	Monthly Plan

**ORDERING DATA PLANS (CDMA)**

**VERIZON CDMA SERVICE PLANS (DOMESTIC)**

VCDMA.ACT	Activation 1 time charge
VCDMA.1MB.PLAN	Monthly Plan, 1 MB
VCDMA.20MB.PLAN	Monthly Plan, 20 MB
VCDMA.1MB.ADDL	Overcharges / MB
VCDMA.SMS	SMS Each Message



**ORDERING GUIDE**

**SELECT ONE OF THESE FULLY-ASSEMBLED WELL CAP PACKAGES**


Fully-assembled Well Cap Package that includes basic datalogger w/cell modem plus your choice of battery/solar panel configuration. Choose the model with your preferred cell or Iridium communications.



Part #	Description
WC-GPRS-1	26 Ah Lithium Battery* Non-rechargeable
WC-GPRS-2	4 Ah Lead Acid w/ 2 watt Solar Panel
WC-CDMA-1	26 Ah Lithium Battery* Non-rechargeable
WC-CDMA-2	4 Ah Lead Acid w/ 2 watt Solar Panel
WC-HSPA-1	26 Ah Lithium Battery* Non-rechargeable
WC-HSPA-2	4 Ah Lead Acid w/ 2 watt Solar Panel
<b>Fully-assembled Well Cap Package that includes basic datalogger w/Iridium modem plus your choice of battery/solar panel configuration.</b>	
WC-IRIDIUM-1	26Ah Lithium Battery* Non-rechargeable
WC-IRIDIUM-2	4 Ah Lead Acid w/ 2 watt Solar Panel
WC-XLINK-1	26 Ah Lithium Battery* Non-rechargeable
WC-XLINK-2	4 Ah Lead Acid w/ 2 watt Solar Panel

*\*Assuming the modem is turned off between transmissions, the high capacity, non-rechargeable, low self-discharge Lithium Battery should last over 1 year, (Calculations did not take into consideration any power drain from the sensor.)*

**OPTIONAL ORDERING**

PLS	OTT Pressure Level Sensor* Indicate required range & required output
PLS-C	OTT Pressure Level Sensor with Conductivity Indicate required range & required output
6661-1340-1	Desiccant Required for vented sensors (Fits in enclosure with 4 Ah battery.)
2271-1195-1	Cable Strain Relief Kit 

**ORDERING DATA PLANS (IRIDIUM & WYLESS GPRS)**

**IRIDIUM ACTIVATION & SERVICE PLANS**

ISBD.SACT	Station Activation
ISBD.OK.1	Min. Monthly Fee, no Data Plan
ISBD.12K.1M.PLAN	Min. Monthly Fee, 12 KB Data
ISBD.100K.1M.PLAN	Min. Monthly Fee, 100 KB data

**WYLESS GPRS FOR DOMESTIC USE (covers T-MOBILE, AT&T, roaming partners)**

WGPRS.ACT	Activation, 1 time charge
WGPRS.1MB.PLAN	Monthly Plan, 1 MB
WGPRS.1MB.ADDL	Overage charge / MB

**SMS is not available with WYLESS GPRS.**

