SDI-Link
Wireless Bridge

Overview

Sutron's SDI-Link provides a way for an SDI-12 data recorder to read one or more SDI-12 sensors located up to 1 mile away using un-licensed band radios. SDI-Link is composed of two parts: Master Modules that connect to SDI-12 dataloggers & Slave Modules that connect to SDI-12 sensors.

Features

▶ SDI-Link is fully SDI-12 V1.3 compliant & works with any compliant sensor & data recorder.

▶ Extended range of up to 1 mile LOS (line of sight) allows the user to get data from sensors that previously would have required a separate data recorder or long, expensive cables.

▶ Able to communicate using SDI-12 or RS-232 mode

▶ The SDI-Link comes in a NEMA-4 rated enclosure with built-in antenna that easily mounts outdoors on a wall or pipe.

▶ Two basic models – a master (WSDI-M) that connects to the data recorder & a slave (WSDI-S) that connects to sensors.

▶ SDI-Link slave model includes a battery charger so all you need to add for a standalone, remote sensor is a battery and solar panel.

▶ Full 2-way SDI-12 communications & fully SDI-12 V1.3 compliant

▶ Plus & play. Truly transparent SDI-12 communications. No additional configuration needed.

▶ Up to a mile in range Line of Sight (LOS)

▶ One Master can operate up to 10 Slaves.

▶ Multiple SDI-12 sensors per slave

▶ Slave has built in Solar Regulator for stand alone use.

▶ Uses 100mW low power radio

▶ Built in I/O in WSDI-SIO

▶ NEMA enclosure 7.5" x 7.5" x 5" plus 6" for antenna included

▶ Received signal strength indicator for master & slave

▶ Always on & ready for SDI-12 communications

▶ Optional I/O board for direct sensor measurements

Applications

▶ Reservoirs & Surface Water

▶ Tidal & Oceanic

▶ Water Quality

▶ Ground Water

▶ Hot & Cold Climates

▶ Lock Monitoring

▶ Flood Monitoring

▶ Met Stations

▶ AGMET Stations

▶ Bridges (Locate Logger off of the Bridge.)

▶ Quick Deployment Gauges

▶ Any Project with Long Cable Runs

SPECIFICATIONS FOR ALL MODELS
Specifications subject to change without notice

OPERATING TEMPERATURE	-40° C to +60° C
ELECTRICAL	
Operating Voltage	10-16 VDC
Solar Panel Regulator	Supports up to 20 watts
Power Consumption	WSDI-S 6mA average typ
	WSDI-M 7mA average typ
Protocol	SDI-12 V1.3
RS 232	Available for setup & transparent mode
RADIO RANGE	Up to 1 mile Line of Sight (LOS)
	5 dBi antenna built-in
	8.5 dBi optional antenna with cable
Frequency	2.4GHz, unlicensed band
PHYSICAL	NEMA 4X lockable enclosure
Dimensions	7.5" x 7.5" x 5" plus 6" for antenna
Cable Glands	Two water tight PG9 for 0.16-0.31" diameter cables
	One Water Tight ½" NPT for 0.20-0.35" diameter cables
LED Status	LED to indicate network activity

WSDI-SIO SPECIFICATIONS

A/D	
Reference	2.5 volt reference, +/- 10 mv, 19 mA max
Ref. Temperature Coefficient	10 ppm/°C max
A/D Number of Bits	24
Switched Battery	Short Protected
SINGLE ENDED INPUTS	2 Channels
Full Scale	0 to 5 Volts
Resolution	0.298 uV
Noise (p/p) @25° C	6.5 uV (p/p)
Noise (rms) @ 25° C	3.4 uV RMS
Accuracy @ 25° C	0.02% FS
Input Impedance	>2M Ohm
DIFFERENTIAL INPUTS	3 CHANNELS
Full Scale	± 0.0390625 V
Resolution	4.657 uV
Noise (p/p) @25° C	1.6 uV (p/p)
Noise (rms) @ 25° C	0.38 uV
Accuracy @ 25° C	<0.01% Ratiometric
Input Impedance	>3M Ohm
4-20 mA INPUT	1 CHANNEL
Full Scale	20mA
Resolution	<1mA
Noise (p/p) @25° C	.02% FS
24 Volt Current Loop Power	24 Volt +/- 5%, short protected
FREQUENCY/COUNTER INPUT	1 CHANNEL
Voltage	0-5 V
Max Frequency	10 KHz

ORDERING

WSDI-M	SDI-Link Master
WSDI-S	SDI-Link Slave
WSDI-SIO	SDI-Link Slave with I/O
ACCESSORIES	
5100-0030	7 Amp-Hr Battery
5100-0040	24 Amp-Hr Battery
5100-0410-1	20Watt
6661-1300-1	Mounting Bracket Kit
6661-1306-20	8.5 dB Omni Kit, 20 ft cable
SHIPPING	
Shipping Height	14 in. (35.6 cm)
Shipping Length	9 in. (22.9 cm)
Shipping Width	9 in. (22.9 cm)
Shipping Weight	5 lbs. (2.3 Kg)

Simple Star Network