

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)



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