Environment • Water • Geotechnical • Data

EWS SINGLE CHANNEL SWITCH-VWT

Overview

The Single Channel Switch-VWT (Vibrating Wire Telemetry) is a compact, low power, multi comms data transmitter and Vibrating Wire convertor in one. It reads vibrating wire and temperature sensor and transmits frequency and temperature measurements wirelessly over either Iridium or LTE to the Orion web portal for storage, processing and display. The same web portal is used to export data into client databases via FTP, SFTP, XML, CSV or email.

For ease of installation the Switch-VWT is pre-programmed for simple plug and play onsite. The VW sensor is connected to the

Single Channel Switch-VWT via a simple M12 connector. The user then connects via Bluetooth to the unit to take a manual reading to confirm the installation.

The Australian manufactured Single Channel Switch-VWT is ideal for new and retro-fit instrumentation projects where unattended collection of readings from VW sensors is required.

Features

- Interchangeable comms options; Send data via Iridium or LTE
- Low power draw with internal battery backup
- 12-24v external power or direct solar panel input
- Bluetooth embedded for local app connection and programming
- Remotely change settings with two-way communications including via iridium
- Small compact form factor — approx. 115x54x43mm
- Lightweight — 200g
- LED's for external verification/diagnostics
- Fits in a number of common enclosure types such as road gatics and monument covers
- Can be Fully potted to provide maximum water ingress protection
- Auto sweep frequency scanning configuration (450-6000Hz)
- Auto configured excitation voltage (5v/12v)
- Automatic data upload directly to Orion web portal
- Can be fully potted for IP68 rating

Benefits

- Works with all standard VWP sensors
- No extra converter modules needed to read VW
- Locally manufactured in Australia
- Extremely compact and rugged compared to other options
- Custom enclosure types to suit application such as road gatics and monument enclosures
- Locally supported
- Plug and play setup onsite
- Ideal for short or long-term, unattended deployments
- Easy to relocate
- Quick and easy to install
- Perfect for new and retrofit instrumentation projects
- Switch and software are supported worldwide and is proven in harsh remote environments

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SPECIFICATIONS

Specifications subject to change without notice

CONVERTOR INTERFACE	
Measurement Interval	1 second to 24 hours
Sensor Type	Vibrating wire and thermistor (for temperature)
Channels	1 x VWP and 1 x temperature
Accuracy (VW)	±0.1% of full scale
Accuracy (temperature)	±0.1ºC
Excitation voltage for VW sensor	Automatically set 5V or 12V
Sweeping frequency range	Automatically configured 450-6000 Hz
Temperature sensor	Thermistor (3KΩ resistance)
Connections	M12 connector
COMMUNICATIONS	
4G / Iridium Satellite	LTE, Iridium Sat freq
Internal antenna (external option available)	MINI 3G/4G/Iridium PCB
Long Range Radio	LoRa 915MHz
OTHER FEATURES	
Processor	32 bit Arm Cortex M4 processor
Clock	Internal real-time clock w/battery backup
Reed Switch	Swipe to activate
Connectivity	USB/Blue Tooth
ELECTRICAL	
Input Voltage	+12.5V to +24V
Battery	Rechargeable +7.4V, 1.8A/hr or non-rechargeable +9.2V,2.3A/hr *Extender pack available
Current Consumption	0.4mA standby type (all sensors unpowered)
Iridium Transmission	0.7A @ +12 Volts
Power Connection	M8 connector
Red Warning LED	Indicates operation error
Green Heartbeat LED	Indicates unit operating properly
Blue Interface LED	Indicates interface communication
MECHANICAL	
Dimensions	L 115mm x W 54mm x D 43mm
Weight	200 grams
ENVIRONMENTAL	
IP Rating	IP67 (IP68 When fully potted)
Temperature	-20ºC to +60ºC functionality
Humidity	0-95% Non-condensing