

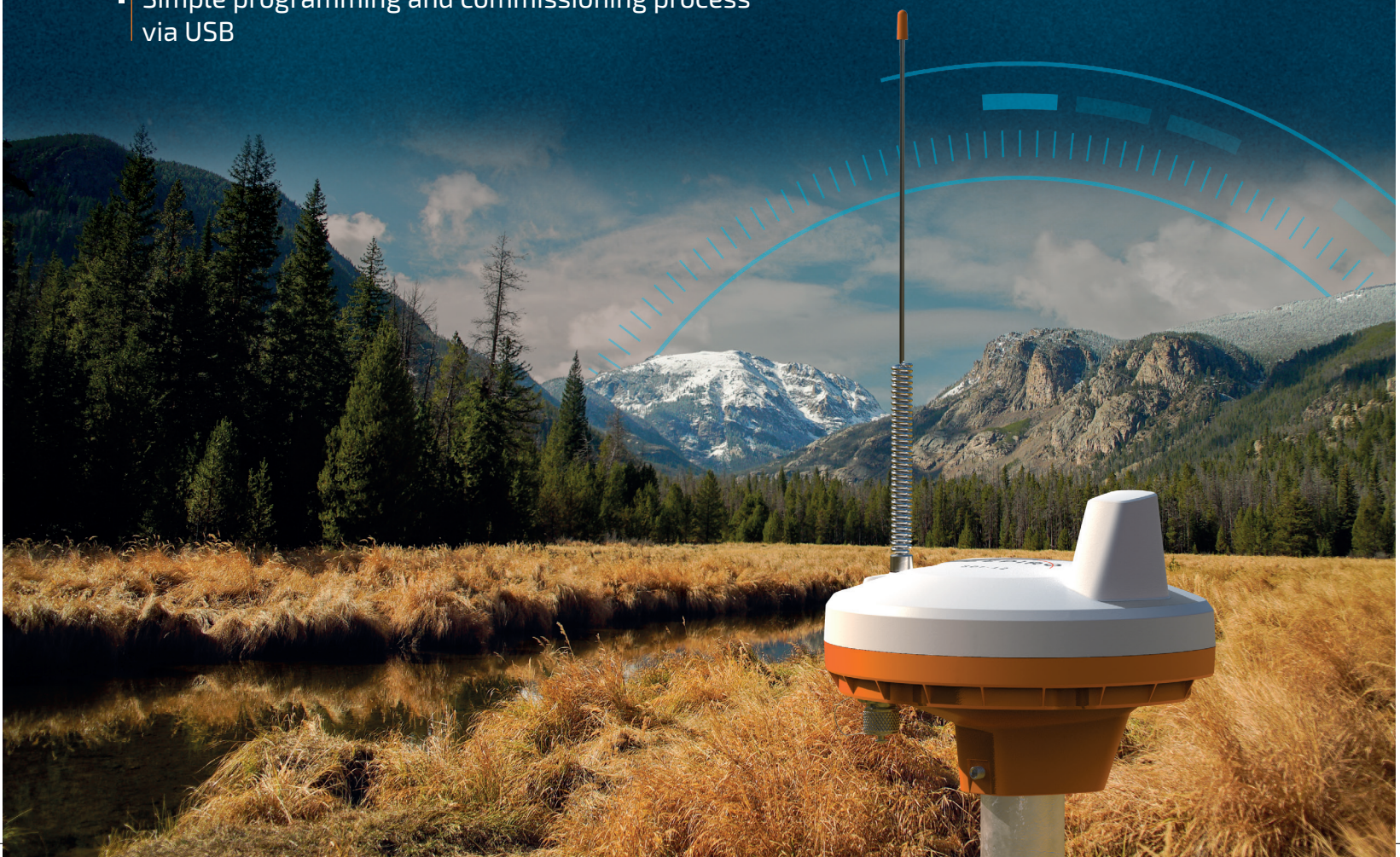
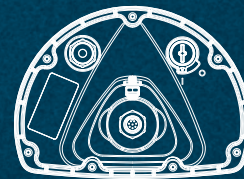
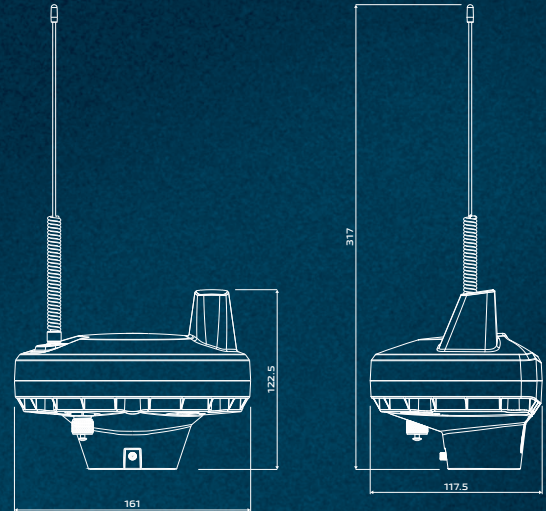


TELEMETRY SIMPLIFIED

## D20 SDI

### Satellite Telemetry Solution

- Low cost, secure SDI-12 telemetry solution suited to difficult to access and remote areas
- Suits existing or new SDI-12 installations at virtually any surface location globally
- Save time and resources with up to 4 years of maintenance free reporting with included battery
- Connect up to 4 SDI-12 devices with multiple channel configuration options
- Simple installation with standard SDI-12 protocol integration via a single, rugged interface cable
- Simple programming and commissioning process via USB





# D2O SDI

Improve your operational insight and obtain reliable and frequent data from your SDI-12 Devices, wherever they may be, with the Zepiro® D2O® (Direct-To-Orbit) SDI satellite telemetry solution.

## KEY FEATURES

- Save time and resources with up to 4 years of maintenance free operation
- Minimise costly site visits to manually retrieve data or take samples
- Add telemetry functionality to any new or existing surface location setup
- Simple installation and standard SDI-12 protocol integration via a single protected M12 8-Pin Interface connector
- Easily configure device, sampling and transmission parameters to suit your application and requirements
- Quick setup via separate USB connection to the D2O Setup Utility software
- Secure data delivery via HTTP or HTTPS POST using JSON content format
- Multiple data plan options with simple account management

## SPECIFICATIONS

- Integrated nano-satellite transceiver and GPS receiver
- Powered SDI-12 (12VDC @ 40mA max) supporting multiple devices and multiple channels
- Up to 4 year primary cell battery life with the following parameters
  - 4 SDI-12 device sampling cycles @ <10s each/12h
  - Up to 4 messages (80 bytes total) per 24h - satellite network dependent
- Self-contained, rugged enclosure with IP67 rating
- Connect up to 4 SDI-12 devices per D2O SDI unit
- Up to 13 data channels per SDI-12 device (value precision dependent)
- Nominal Operating Voltage - 3.0 to 3.6VDC
- Nominal System Standby Current - 25µA
- Nominal Non-Rechargeable Battery Capacity - 10Ah
- Operating temperature range -15°C to 60°C

## D2O SETUP UTILITY

The D2O Setup Utility software provides the following functionality:

- Review live D2O SDI status and device information
  - GPS Location, Date and Time
  - SDI-12 Device status
  - Satellite network information and RSSI
  - Power, battery and system details
- Program D2O SDI satellite transmission settings
- Program SDI-12 Device sampling settings
- Set SDI-12 Device address, precision and channels
- Save/Open a D2O SDI Program File to enable quick repeated setup
- Generation of “as-installed” Commission Report with a snapshot of the SDI-12 Device readings
- Automatic data packaging and validation according to the selected parameters
- Optimised, time-stamped readings to suit data transmission packets
- Diagnostics data is sent 2 times per week as 1 individual message

## PROGRAMMABLE SETTINGS

- Number of connected SDI-12 devices
- Number of individual channels per device
- Value precision per channel
- Sampling interval (applies to all devices)
- Absolute time of first sample reading
- Multiple and highly flexible data acquisition methods for connected SDI-12 Devices
- Option to select from list of endorsed, preconfigured SDI-12 devices

## DATA DELIVERY

- Supported Method - HTTP & HTTPS POST
- Content Format - Application/JSON
- Message fields:
  - EndpointRef: UID of destination
  - Timestamp: Epoch time of issue
  - ID - UUID identifying data
  - DataPayload: Message Data
  - Signature: PKCS1\_15 signature of payload
  - CertificateUrl: URL of certificate with authentication key

All specifications are subject to change without notice.  
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