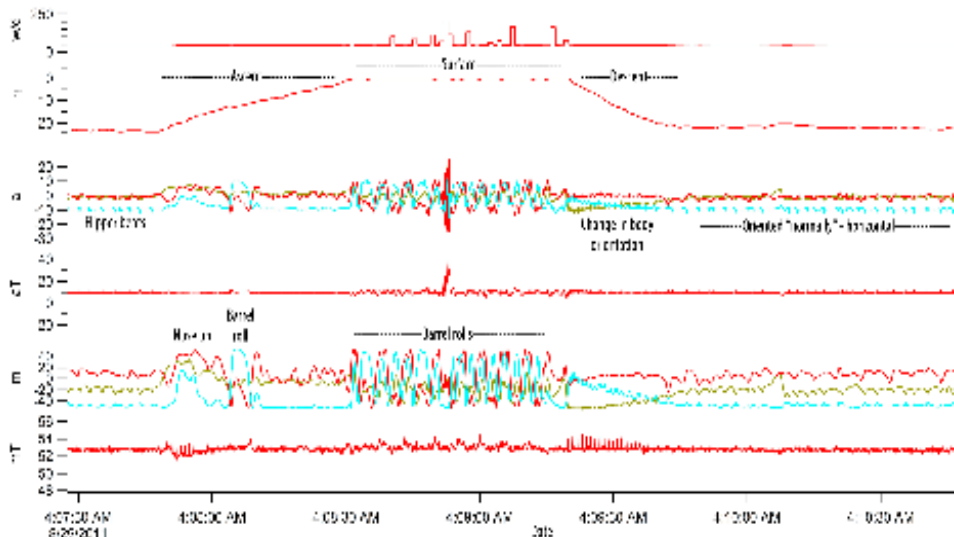




## TDR10-DD PRODUCT SHEET

The Daily Diary tag offers the most sensors among Wildlife Computers archival tags. These additional sensors (accelerometer, magnetometer, and speed) allow for an expanding field of applications, including three-dimensional track reconstruction and energetic inference. The user can choose to sample the three-axis accelerometer up to 32 Hz, and the three-axis magnetometer up to 8 Hz. This tag also includes the standard archival sensors for depth, temperature, and light level.

The additional sensors can be used to estimate a range of behavioral characteristics. The accelerometer can be used to differentiate between movement and resting behavior, and can also be used to identify foraging events. Orientation and body position can also be derived by combining attitudinal information (tilt and roll) from the accelerometer with magnetometer readings. Combining changes in depth with the paddle wheel speed measurements will also allow the derivation of the horizontal and vertical components of the animal's swimming speed.



**Data Gathered Using the TDR10-DD**

### Available Data Products

	TDR10-DD
Depth Archive	X
Temperature Archive	X
Light Archive	X
Wet/Dry Archive	X
Acceleration 3-Axis Archive	X
Magnetic Field Archive	X
Speed Archive	X



Model: TDR10-DD-278 Front View



Model: TDR10-DD-278 Rear View

# TDR10-DD – CONTINUED

## SENSOR SPECIFICATIONS

TEMPERATURE	
Range	-40 °C to 60 °C
Resolution	0.05 °C
Accuracy	± 0.1 °C
DEPTH	
Range	0-2000 m
Resolution	0.5 m
Accuracy	± 1% of reading
LIGHT LEVEL	
Range	$5 \times 10^{-10} \text{ W cm}^{-2}$ to $5 \times 10^{-2} \text{ W cm}^{-2}$
Resolution	20 units decade <sup>-1</sup>
Wavelength	430 nanometers
3-AXES ACCELERATION	
Range	± 2 g (-20 m s <sup>-2</sup> to 20 m s <sup>-2</sup> )
Resolution	0.05 m s <sup>-2</sup>
Sample Rate	32 Hz maximum
Sensor Coordinate Frame	Right-handed
3-AXES MAGNETIC FIELD STRENGTH	
Range	± 100 nanotesla
Resolution	0.2 nanotesla
Sample Rate	8 Hz maximum
Sensor Coordinate Frame	Right-handed
PADDLE WHEEL SPEED	
Range	0 to 5 m s <sup>-1</sup>
Resolution	0.01 m s <sup>-1</sup>
Sample Rate	1 Hz maximum

Learn more about the TDR10-DD configurations on [WildlifeComputers.com](http://WildlifeComputers.com)

To Learn More Call: +1 (425) 881-3048 or Email: [tags@wildlifecomputers.com](mailto:tags@wildlifecomputers.com)