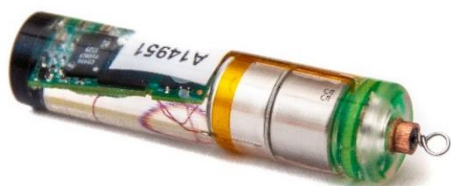# G7 pDST
Pop-Off Data Storage Tags

Overview

The G7 pDST retains the functionality of our popular G7 DSTs, featuring independent pressure, temperature, and accelerometer logging to allow for flexible programming, combining this with a user-programmable release mechanism.

These tags allow users to log data at resolutions of up to 12-bit; and can record over 58 million readings from its temperature, pressure, accelerometer and wet/dry (optional) sensors over the life of the battery. It features independent pressure and temperature logging, allowing for flexible programming.

The G7 pDST enables customers to increase tag return rates thanks to the pop-off feature. Operating using galvanic corrosion, the user can program the unit to separate itself from its host on a set date. This feature does not affect the data logging capability as it has a dedicated battery ensuring the reliability of both the data logging and pop-off functions.

Robustness and reliability of Cefas Technology Limited products comes as standard. Please see below for a full technical specification.

Key Features	G7 pDST		
Dimensions	**Length (inc. corrodible loop)**	**Length (body)**	**Diameter**
	71.5mm	61mm	15mm (30mm with float)
Weight in Air	18g (*32g with float*)		
Weight in Seawater	14g (*positively buoyant with float fitted*)		
Memory			
Memory Options	56MB		
Typical Logging Rates [1]	**Logging rate**	**Time to fill memory (days)**	
	0.033 seconds [2]	7.5	
Logging both temperature & pressure @ 12-bit resolution	1 second	225	
	10 seconds	>730 [3]	
Accelerometer			
Absolute Tolerance (within Calibrated Temperature Range)	±0.2g		
Typical Tolerance (at full scale pressure and within Calibrated Temperature Range)	Within +/-0.4g		
Accelerometer Range (user-selectable)	±2g	±4g	±8g	±16g
Resolution (at 12-bit setting)	1mg	2mg	4mg	12mg
Depth Sensing			
Depth Sensors	10, 20, 50 or 100 bar		
Max Depth Before Pressure Sensor Failure	1.5 x Full Scale		
Accuracy (at 12-bit setting)	±1% of Full Scale		
Resolution (at 12-bit setting)	**10 bar sensor**	**20 bar sensor**	**50 bar sensor**	**100 bar sensor**
	Better than 4cm	Better than 8cm	Better than 15cm	Better than 30cm
Temperature Sensing			
Calibrated Temperature Range [4]	2°C to 34°C		
Accuracy (in calibrated range, at 12-bit setting)	±0.1°C		
Typical Temperature Response Time (5°C to 30°C)	**66% of temp change**	**90% of temp change**	**100% of temp change**
	76 seconds	171 seconds	528 seconds
Operating Temperature	-2°C to 40°C		

Note: the accelerometer range and resolution row has four value columns (±2g, ±4g, ±8g, ±16g). The depth resolution row also has four value columns (10/20/50/100 bar sensor). The temperature response time row has three value columns.

Absolute Temperature Range	-10°C to 60°C		
Resolution (at 12-bit setting)	0.03125°C		
Time Series Data Points			
Number of Data Points (*at User-Defined Resolution*)	**8-bit**	**10-bit**	**12-bit**
	58.65 million	46.9 million	39.1 million
Dive Logging Option Features			
Logging Rates	1Hz; 2Hz; 4Hz; 5Hz; 7Hz; 10Hz; 15Hz; 20Hz; 25Hz; 30Hz Adjustable dive-log depth threshold		
Wet/Dry Sensor	Enabled		
Timed Release Features			
Activation Date Range	**Minimum**		**Maximum**
	1 hour		2048 days
Typical Activation Times	**Seawater (salinity = 30 ppt)**		**Tap Water**
	< 45 minutes		Approx. 14 days
Required Peripherals			
Casing	Acrylic / Urethane / Copper / Stainless Steel		
Battery Chemistry	Lithium Manganese Dioxide		
Interface	Connected via CTL USB Interface		
Data Output	CSV Format (MS Excel etc)		
Software	DST Host – Windows OS (up to & including Windows 10)		

Notes :
1. Under normal operating conditions and based on logging continuously.
2. Logging at 30Hz unconditional fast-logging rate. Tags must have Dive-Logging feature activated to achieve this rate.
3. Limited by battery life expectancy
4. Accuracy degrades outside this range. Pressure readings are temperature compensated within this range.

Specifications mentioned in this document are subject to change without notice. This publication supersedes and replaces all information previously supplied.

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