Saga Storage

General overview

Product name	Saga
Model name	Saga-P
Model type	Storage
Dimensions	25 mm × 61 mm × 98 mm
	0.98 in × 2.40 in × 3.86 in
Weight	194 g
	6.84 oz
Housing	ABS plastic enclosure
Available information	Temperature, geographical location, battery status, light events
Ingression protection rating	IP54
Flight detection	Yes
Display	Yes, E-ink

Calibration

Calibration points	See probe datasheet
Calibration accuracy	See probe datasheet
Calibration certificate	Available upon request

Technical data

Battery type	Rechargeable NiMH battery, 2500 mAh
Nominal energy	9 Wh
Battery life	Device transmits data for 20 to 110 days on a single charge, depending on cloud reporting interval, as detailed on page 2.
Internal memory	Storage capacity of 150 days of temperature measurements (when recorded at 10-minute intervals)
Charging	Via attached USB cable
Backup data download	Via attached USB cable
Cellular network type	2G, 3G and 4G (LTE)
Cellular coverage	Global

Measurement data

Measurement interval Sampling rate	10 minutes
Data reporting	The device needs to wake up and establish a connection to upload measurement data to the Controlant cloud.
Wake-up schedule	Adjustable from 1h to 24h frequency. The device wakes up when an excursion triggers an alarm, regardless of the schedule.
Standard operating temperature range **Logs temperature**: Yes **Cloud connection**: Can be established **Battery life**: Normal **Display**: Fully functional (above 0°C)	-20°C to +50°C
Limited operating temperature ranges **Logs temperature**: Yes **Cloud connection**: Disabled below -20°C **Battery life**: Reduced **Display**: Not functional	-30°C to -20°C +50°C to +70°C
Resolution	0.1°C

Certifications and approvals

Approvals	CE, FCC, IC, NOM, KC
Aviation compliance	IATA, FAA and EASA

Manufacturer

Name	Controlant hf.
Address	Smáratorg 3, 201 Kópavogur, Iceland

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Battery type
The device is powered by a rechargeable NiMH battery, 2500mAh. NiMH batteries are not considered dangerous goods. The battery life cycle is at least 300 charge cycles.

Battery life
A fully charged device on a 12-hour wake-up interval can be expected to upload data and report alarms for at least 110 days while monitoring an active shipment within the operating temperature range.

The device enters Hibernation Mode when the battery level reaches 5% or less, at which stage it stops attempting to connect to the Controlant cloud. In Hibernation Mode, it still records data and stores it in its internal memory until the battery is depleted or the device is recharged.

The battery life depends on the set wake-up interval, as shown in the table below.

Wake-up interval	Battery life
1 hour	20 days
2 hours	35 days
3 hours	45 days
6 hours	75 days
12 hours	110 days
24 hours	>110 days

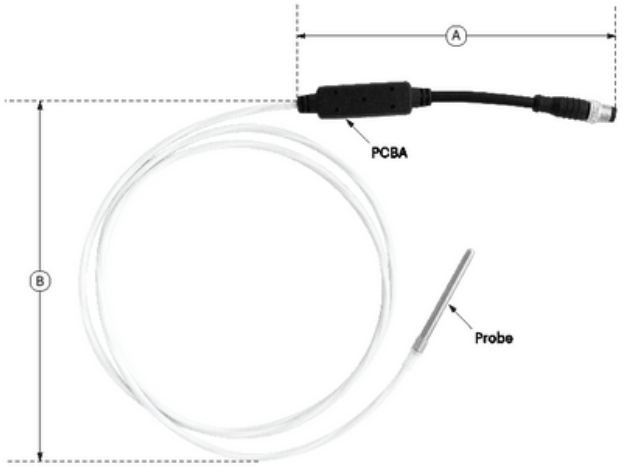
Saga Storage probe

PR-T80 probe

The PR-T80 digital dry ice temperature probe is designed for the Controlant Saga-P real-time temperature monitoring data loggers.

Features and benefits

- Validated and compliant for the life sciences supply chain
- Accurate digital temperature sensor for dry ice temperature measurements
- Designed for dry ice applications (-80° C/-112° F)



General overview

Product name and type	PR-T80 digital temperature probe
Probe length overall (LOA)	1370.8 mm ±30 mm
	54 in ±1.22 in

Connector section Ⓐ

Operating temperature	-40° C to +50° C	-40° F to +122° F
Cable diameter	4.6 mm	0.18 in
Cable section material	TPU, black	
Connector body	TPU	
Connector standard	IEC 61076-2-104	
Connector contacts	Brass with gold plate	
Connector locking system	Screw locking	
Connector waterproof rating	IP67	
Cable color	Black	

Probe section and cable Ⓑ

Operating temperature	-95° C to +50° C	-139° F to +122° F
Length (probe + cable)	1198 mm ±20 mm	47.2 in ± 0.8 in
Probe section diameter	4.0 mm	0.16 in
Cable diameter	2.5 mm	0.9 in

Temperature sensors

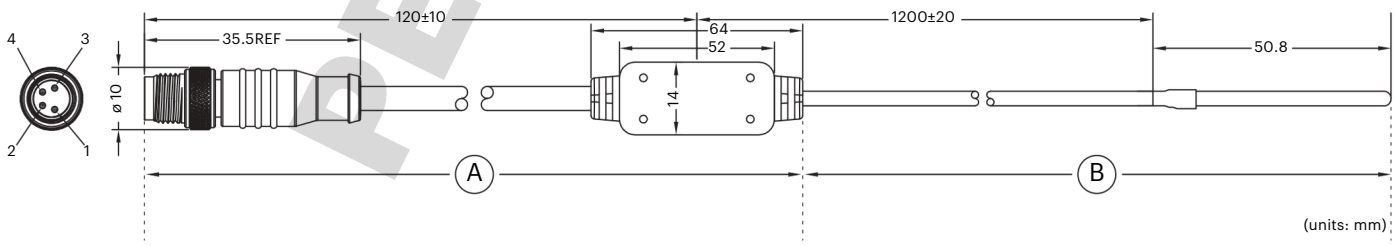
Measurements

Number of sensors	One sensor — dry ice temperature
Temperature	-95° C to +50° C
	-139° F to +122° F
Resolution	0.1° C
	0.18° F
Long-term drift	<0.1° C / year
	0.18° F / year

Calibration

Standard calibration points	-80° C	-112° F
	-40° C	-40° F
	-20° C	-4° F
	0° C	32° F
	15° C	59° F
	50° C	122° F
Calibration accuracy	±1.0° C	
	±1.8° F	
Non-standard calibration points	Available	
Calibration certificate	Available upon request	

Probe dimensions



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