# S-Disk J Ultra Freeze

S-Disk | Ultra Freeze is a temperature data logger from -80°C to 140°C (calibration from -40°C to 140°C) with 20 or 100 mm or on demand length external probe (probes cannot be switched) on a 13 mm cone base (base height is not counted for probe length), managed with Windows software and USB interface (DiskInterface HS, Multibay). Battery is user replaceable and the data logger is provided with an Accredia (NIST equivalent) traceable cetificate on 6 points.

The ultra low temperatures datalogger looks like the S-Disk I standard but it includes a calibration from -40°C. With calibration from -40°C it can be used also at -80°C with an accuracy within  $\pm$  0,5 °C within range -80 °C  $\div$  -40 °C. If -80°C is requested to be on the certificate, an extra calibration point for very low temperatures must be purchased. It is particularly indicated for monitoring and validation of ultra freezers.

The other versions of the data logger are:

- S-Disk J: with rigid probe of different lengths
- S-Disk J Flexible: with flexible cable probe and rigid probe at the end
- S-Disk | Bendable: with semi-rigi metal bendable probe and rigid probe at the end
- There are also other models of high temperature data loggers, for pressure and humidity too.



Validation

**Applications** 





Healthcare



Laboratories

Note: if used below -30°C, battery life will be highly reduced. Mission max duration at -80°C: 12 hours. Using the logger for long periods below -40°C will constantly reduce mission max duration. For longer missions purchase a S-MicroW series logger with -80°C special battery.

### Main features

- With different lengths rigid probe for penetration
- Completely food grade and waterproof
- All software calculate lethality value (F0, PU, A0 ecc.)
- Low battery consumption for an extended battery life
- User replaceable battery (software shows battery status)
- Very easy to deploy in any type of package
- Accredia (NIST equivalent) traceable calibration certificate included from -40°C
- Available extended calibration from -80°C (order extra calibration points; in case of wide calibration range the accuracy might be worse)

#### **Plus**

- Extremely high accuracy and precision: with an accuracy of  $\pm 0,1^{\circ}$ C these devices can be employed in any application involving pharmaceuticals, validation, laboratory and medical field
- · High accuracy even outside the calibration range
- · Save money on calibration costs with calibration from -40°C included
- High accuracy even from -80°C
- Fast response time thanks to the 3 mm diameter probe
- Printed reports compliant with health regulations and ISO (data are not editable in the software)

## The system

The system is made up by:

- S-Disk J temperature data loggerDiskInterface HS or Universal Multibay
- SPD software or TS Manager software (compatible with the FDA 21 CFR Part 11 regulation)

#### **Accessories**

- SPD
- TS Manager
- DiskInterface HS
- Universal multibay
- Locking bolt
- Fastening system
- Teflon protective tube
- S-Disk J, L-Disk battery kit

# **Technical specifications**

Dimensions	29,5 h X 35 Ø (mm)
Probe dimensions	Probe base dimensions 5 h X 14 Ø (mm) - Probe 20/100 l X 3 Ø (mm) Probe l on demand X 3 Ø (mm) (l on demand: min. 10 mm / max. 175 mm. For longer probes ask for quotation)
Weight	60 gr
Materials	Stainless steel AISI316L, PEEK
Temperature range	-80 °C ÷ +140 °C
Standard calibration points (temperature)	-40/-20/0/25/50/75/100/125/140°C
Extra calibration points (temperature)	Within the range -80 °C ÷ +140 °C
Temperature resolution	0,01 °C
Temperature accuracy	$\pm$ 0,1 °C (within the calibration range)
Memory (n. of acquisitions)	54.528
Acquisition step	From 1 every second up, with 1 second steps
Protection degree	IP68
Battery life	+8.000.000 acquisitions at 1 second step continuously (calculated time @25°C. Battery life may be shorter if used in low temperatures)
Software&Mobile App	SPD, TS Manager
Accessories	DiskInterface HS, Multibay universale



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