

**Digital Temperature and Humidity Data Loggers**  
Tiny, Robust Computer Chip-Based Loggers to Deliver High Accuracy and Low Cost

**Pharmaceutical  
industry**



**Cold storage  
industry**



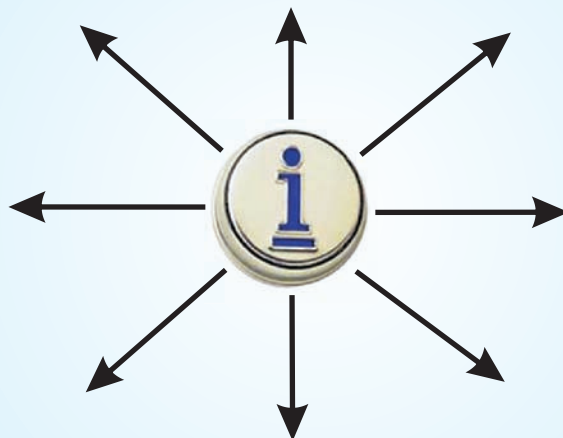
**Food  
industry**



**Super Market &  
Malls**



**Green house/  
horticulture**



**Dairy  
industry**

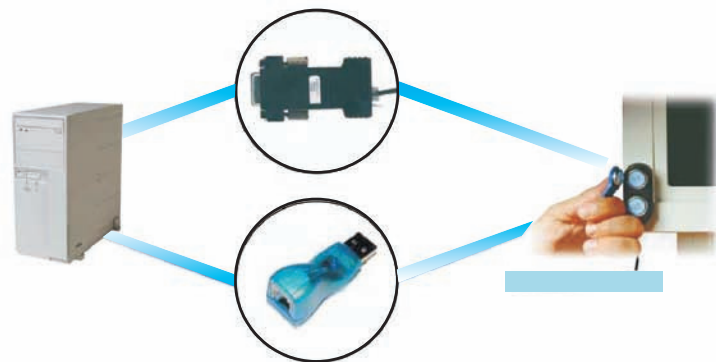


**Coldchain  
transportation**



**Biochemical  
lab**

**One Wire Easy Interface**















## Features

- Convenient small size logging with one wire interface
- Low cost, easy to operate with IP 56 rated housing
- Each button with globally unique address.
- Stainless Steel casing for rugged, reusable & robust use
- Resistant to sunlight, water, dust, chemical, mechanical shocks & can withstand harsh indoor / outdoor area

## iButton Data Logger Product Selection Guide

	Part	Temp Range	Max Accuracy	Data Log capacity
Temperature Data Loggers	DS1921G-F5	-40°C to +85°C	+/- 1°C (-30°C / +70°C)	2K points
	DS1921H-F5	+15°C to +46°C	+/- 1°C	2K points
	DS1921Z-F5	-05°C to +26°C	+/- 1°C	2K points
	DS1922L-F5	-40°C to +85°C	+/- 0.5°C (-10°C / +65°C)	8K points
	DS1922T-F5	0°C to +125°C	+/- 0.5°C (+20°C / +100°C)	8K points
	DS1922E-F5	+15°C to +140°C	+/- 1.5°C (+110°C / +140°C)	8K points
Temperature / Humidity Data Loggers	DS1923L-F5	-20°C to +85°C	+/- 0.5°C (-10°C / +65°C)	8K (Temp.) /
		0%RH to 100%RH	+/- 5%RH	4K (Temp./RH)

## Accessories Quickview

Communication Port Adapters		
	DS9490R	1-Wire USB Adapter: 1-Wire to USB interface. Connects to all reader/probes with RJ-11 interface.
	DS9490B	USB iButton Holder/Dongle: 1-Wire to USB interface. Designed for applications where iButton is infrequently removed from holder.
	DS9097U-S09/009/E25	Universal 1-Wire COM Port Adapter: 1-Wire to RS-232 COM port interface (DB9). Connects to all reader/probes with RJ-11 interface. 009 version includes DS2502 for ID. E25 version includes a 12V power port for writing to EPROM iButtons and comes in a DB25 package.
Probes/Receptors (Reader/Write Interfaces)		
	DS1402-DR8/DB8	Blue Dot Receptor Cable: iButton reader/writer interface. iButtons communicate through Blue Dot interface with just a touch or can be snapped into the Blue Dot for continuous connection. DR8 has RJ-11 interface. DB8 has button interface.
	DS1402RP8/BP8	iButton Touch and Hold Probe Cable: iButton reader/writer interface. iButtons communicate through probe with just a touch or can be snapped into the probe for continuous connection. RP8 has RJ-11 interface. BP8 has button interface.
	DS9092GT	iButton Handheld Wand: Plastic wand with an integrated iButton probe, shaped to self-align with iButtons. Gives tactile feedback. The wand comes with a 10cm handle and a 1m cable that is terminated with an RJ-11 jack.
	DS9092/T/L	Panel-Mount Probe: T version has tactile feedback. L version has an LED and is recommended for outdoor use.
	DS1402D-41	Blue Dot probe component for embedded touch and hold applications.
iButton Mounts		
	DS9107	Capsules: Protect iButton loggers from moisture, solvents, and pressure.
	DS9093Ax/F/N	Key Fobs: Allow an iButton to be carried conveniently on a key chain. Available in three different versions and five different colors.
	DS9093S/P	Wall Mounts: Allow you to securely mount iButtons to most surfaces. Available in two versions.
	DS9096P	iButton Adhesive Pads: Allow you to easily mount iButtons to anything.

**MUST FOR YOUR TRANSPORTATION**





## Features

- Multiple configurations per site
- Capitalized Web Server and accompanying Application
- Local and online database management
- Full security administration
- User access rights and Global access rights
- Workflow System Automation
- QIC advance statistical analysis reports
- Validation certificate generation
- CFR21 part 11 compliant
- ISO 9000-2000/8 design principles
- GAMP 5 methodological design foundation

## ColdChain Webservice Application



### Computer or Wireless device

Configure and start  
Custom information fields  
Alarms and escalations  
Workflow engine automation  
User and folder groups



### Central Data Repository & application

Secure central data storage  
Shipment / mission analysis  
Automated reports  
Full notification service  
Workflow engine automation



### Computer or wireless device

Configure and start  
Custom information fields  
Alarms and escalations  
Workflow engine automation  
User and folder groups



**Farm /  
Manufacturer**



**Packhouse /  
warehouse /  
Inland cold store**



**Freight / transport  
of goods**



**International  
Shipment**



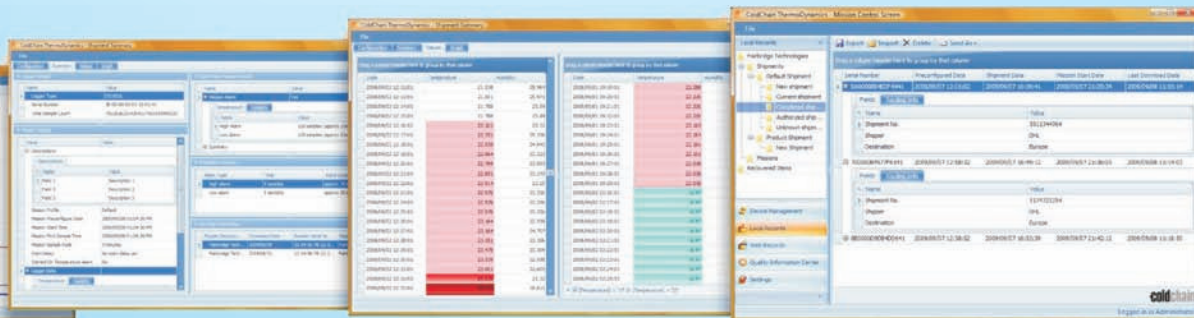
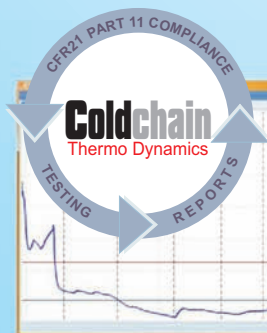
**Overseas cold  
store container  
unloading & QA**



**Freight to  
distribution  
centre or market**



Keep your food fresh as ever - FROM FARM TO FORK



Keep your Electronic Logging Records & Electronic  
Signatures compliant with CFR21 PART11

# MUST FOR YOUR COLD CHAIN



	Feature Matrix	ColdChain MicroDevice	ColdChain Express	ColdChain Enterprise
<b>Environmental:</b>	• Temperature logger is reusable for up to 10 years	✓	✓	✓
	• Temperature loggers are recycled at the end of their life cycle	✓	✓	✓
	• Packaging materials and accessories are recyclable (ordered separately)	✓	✓	✓
<b>Logger Administration:</b>	• Configuration of loggers with custom presets	✓	✓	✓
	• Recording only after alarm triggers (DS1922 & DS1923)	✓	✓	✓
	• Define low and high alarm thresholds	✓	✓	✓
	• Define timed intermediate alarm thresholds and filters	✓	✓	✓
	• User programmable descriptions of up to 400 characters total	✓	✓	✓
	• Description information stored in logger memory for added security	✓	✓	✓
	• Definable start delays (configurable to an exact date or after a time delay)	✓	✓	✓
	• Automatic logger device starting, stopping and downloading	✓	✓	✓
	• Routing information recorded for tracking purposes	✓	✓	✓
<b>User Administration:</b>	• Master logger password protection (DS1922 & DS1923)	✓	✓	✓
	• Secure user login	✓	✓	✓
	• Multi-user support		✓	✓
	• Creation of user groups and subgroups			✓
	• User Access Rights and Global Access Rights management			✓
	• User defined operational workflows to automate tasks			✓
	• Authorisations on critical data			✓
	• Notifications (email, SMS, NoticeBoard system) and Notification groups		(email only)	✓
<b>Webserver Application:</b>	• Escalations and Escalation groups			✓
	• 24/7 Data repository access		(local only)	✓
	• Audit Log			✓
	• ActiveX driver support (no installation necessary)			✓
	• Inventory Manager		✓	✓
<b>Program Features:</b>	• Place orders and facilitate returns		✓	✓
	• Basic reporting and layout editor	✓	✓	✓
	• Auto email records	✓	✓	✓
	• Direct record data export to Excel, CSV and PDF	✓	✓	✓
	• User preference settings, including time zones and units		✓	✓
	• Validation certificate generation		✓	✓
	• Simple and advanced search on records		✓	✓
	• Folder filing system to sort information in groups and subgroups		✓	✓
	• View combined audit trail files to track a mission or shipment's progress from inception to archive			✓
	• Secured data transmission and verification		✓	✓
	• Powerful filters allowing devices to be sorted into groups as they are downloaded		✓	✓
	• Unique settings per folder		✓	✓
	• Advanced graphing tool	✓	✓	✓
	• RFID device support	✓	✓	✓
<b>Special Features:</b>	• Barcode scanner integration	✓	✓	✓
	• Workflow Engine – powerful customisable step-by-step event driven interface for operator assistance at every read point			✓
	• Automated Audit Trail to log every event in the entire system			✓
	• 21CFR part 11 compliant	✓	✓	✓
	• ISO 9001/2008 and ISO 9001/2000 compliant	✓	✓	✓
<b>QIC: (available as a standalone application)</b>	• GAMP 5 design foundation	✓	✓	✓
	• Statistical analysis			✓
	• Shipment / Mission analysis			✓
	• Basic and advanced reporting features			✓
	• Multiple graph analysis and overlays			✓
	• Trend analysis			✓
	• Automatic or manual shipment segmentation			✓
	• Routing information segmentation			✓
	• Advanced report layout editor			✓
	• Automated reports			✓
	• Scripting engine			✓

Support by: MAXIM & FAIRBRIDGE

Specification are subject to change without any prior notice

## Ambetronics Engineers Pvt. Ltd.

17-B, Tarun Industrial Estate, Mogra Pada, New Nagardas Road, Andheri (East), Mumbai - 400069, India.

Tel.: +91-22-66995525, 28371143, Fax: +91-22-28226570

E-mail: gas@ambetronics.com • Web: www.ambetronics.com

# MUST FOR YOUR COLD CHAIN

