

Choosing a Data Logger

Introduction

This reference has been compiled to inform immunisation providers of the range of data loggers available for purchase. Information contained in this reference is directly from the manufacturer and is to be used as a guide only. It is recommended you to contact the manufacturer for additional information to assist in determining which data logger is best suited to your needs.

Data logger manufacturers

Hastings Data Loggers

Phone: 02 6581 3900
Fax: 02 6581 3988
Email: sales@hdl.com.au
Web: www.hdl.com.au
Contact: David Wilson

Temperature Technology

Phone: 08 8231 1266
Fax: 08 8231 1212
Email: sales@t-tec.com.au
Web: www.t-tec.com.au
Contact: Kirsten Blichfeldt

Rollex Group

Phone: 1300 880 441
Fax: 1300 880 451
Email: digby@bentleybrokerage.com.au
Web: www.rollexgroup.com.au
Contact: Digby Bentley

HLP Controls

Phone: 1800 500 160
Fax: 1800 827 160
Email: trish@hlpcontrols.com.au
Web: www.hlpcontrols.com.au
Contact: Trish Day

Electro Chemical Engineering P/L

Phone: 02 9684 2499
Fax: 02 9684 2118
Email: sales@ecefaste.com.au
Web: www.ecefaste.com.au
Contact: Garry Mans

PLEASE NOTE: Although some users have recommended these companies and their products. It should be noted that General Practice Queensland does not endorse or recommend any particular model of data logger. Divisions and/or practices need to consider their environment staffing arrangements and other relevant details to ensure the most appropriate data logger is chosen.

Manufacture Listing

Every immunisation service provider has different requirements for performance of a data logger, depending on what type of refrigerator you have as well as your thermometer requirements. It is important to be aware of the features on your purpose built fridge, as this could affect the performance of the data logger you choose.

Temperature Technology

Type of Data Logger	Thermochron DS1921-F5	T-Tec	TempTec 816
	Series G: -40 +85°C Series Z: -5 +25°C	A range of options are available	Series S: -40 +85°C Series L: -100 +20°C
Price	\$36.00 each	Ranges from: \$170 - \$290	S: \$395 L: \$435
Software & Interface Cable	\$150 Starter Kit Inc. 1 button	\$170	\$170
LCD Screen	NO	Series 6 : NO Series 7 : YES	YES
Memory	2048 Logs	10 600+ Logs	20 100+ logs
Audible Alarm	NO	Series 6 : YES	YES
Visual Alarm	NO	Series 7 : YES	YES
Alarm Output	NO	1 Optional	2 built-in
Current Min/Max/Reset	NO	NO	YES
Accuracy	±1°C	±0.2°C	±0.2°C
Resolution	Model G: 0.125°C Model Z: 0.5°C	Better than 0.125°C	Better than 0.125°C
IP Rating	Water resistant	Water tight to IP68	Not water tight
Sensor	Built-in	Choice of Built-in or remote sensor	Incl. fixed mounted remote sensor
Sensor length	N/A	On request (remote)	Standard 1.5m Or on request
Size	17.3mm W x 5mm H	65mm L x 3mm W1 x 106mm H	118mm L x 88mm W x 60mm H
Weight	3.2g	115g	400g
Casing	Stainless steel	Polycarbonate	Polycarbonate / ABS
Battery	Built-in replaceable	½ AA 3.6V Lithium Replaceable	AA 3.6V Lithium Replaceable
Security	Serial No. Appears in file	Serial No. Appears in file	Serial No. Appears in file
Calibration Cost	All our loggers have been calibrated and do not require another; we can provide a NATA traceable Cert at \$38.50 for the Temp Loggers. The only data logger that does everything that is required in the <i>Strive for 5</i> is the TempTec 816.		

Hastings Data Loggers

Data Logger Types	TV-4020	TV-4050	TGU-4017	TK-4014
Price	\$ 408+GST	\$ 329+GST	\$ 229+GST	\$179+GST
Software & Interface Cable	\$139+GST (USB or Serial)	\$139+GST (USB or Serial)	\$139+GST (USB or Serial)	\$139+GST (USB or Serial)
LCD Screen	Yes	Yes	No	No
Memory	30,000	30,000	32,000	16,000
Audible Alarm	+ \$149+GST	+ \$149+GST	No	No
Visual Alarm	Yes	Yes	Yes	Yes
Alarm Output	Flash on LCD and Audible/relay with Alarm box	Flash on LCD and Audible/relay with Alarm box	Red LED	Red LED
Current Min/Max/Reset	LCD Current Temp	LCD Current Temp	N/A	N/A
Accuracy	~ +/-0.4°C	~ +/-0.4°C	~ +/-0.4°C	~ +/-0.4°
Resolution	0.02°C	0.02°C	0.01°C	0.05°C
IP Rating	IP65	IP65	IP54	IP54
Sensor	PB-4715 (\$59+GST)	Internal	Internal	Internal
Sensor length	10x3mm w/ 0.6m lead	N/A	N/A	N/A
Size	60x85x77x35mm	60x90x65x35mm	72x60x33mm	54x35mm
Weight	85g+Probe	85g	55g	30g
Casing	Hard Plastic	Hard Plastic	Hard Plastic	Soft Plastic
Battery	3.6V 1/2 AA Lithium	3.6V 1/2 AA Lithium	3.6V 1/2 AA Lithium	3.6V 1/2 AA Lithium
Security	Mounting Hole	Mounting Hole	Mounting Hole	none
Calibration Cost	\$140+GST	\$140+GST	\$140+GST	\$140+GST

Notes

- With the TV-4020 the logger needs a sensor (the PB-4715 or another) for it to function.
- The audible alarm box is sold separately to the loggers.
- Accuracy is an approximation as it varies by temperature so it would be best to consult the data sheet as they graph the accuracy by temperature.
- Security reference is in regards to how you secure the logger to something i.e. Fridge wall. TV and TGU loggers have a mounting hole so you can tie/secure them to something, the TK does not have anything like this.

HLP Controls

Data Logger Types	8814	88128	8828
Price	\$83.00	\$141.00	\$199.00
Software & Interface Cable	USB or RS232 Available	USB or RS232 Available	USB or RS232 Available
LCD Screen	YES	NO	YES
Memory	4,000	16,000	16,000
Audible Alarm	NO	NO	NO
Visual Alarm	YES	YES	YES
Alarm Output	N/A	N/A	N/A
Current Min/Max/Reset	NO	NO	NO
Accuracy	+/- 0.6°C	+/- 0.6°C	+/- 0.6°C
Resolution	Can be set to read from 1 sec to 2 hrs	Can be set to read from 1 sec to 2 hrs	Can be set to read from 1 sec to 2 hrs
IP Rating	IP65	IP66	IP66
Sensor	Inbuilt	Inbuilt	Inbuilt
Sensor length			
Size	80x55x22mm	80x55x22mm	80x55x22mm
Weight	80gms	80gms	80gms
Casing	Plastic Casing. Very Durable	Plastic Casing. Very Durable	Plastic Casing. Very Durable
Battery	CR2032	½ AA	½ AA
Security			

Electro Chemical Engineering P/L

Model	Comark EVT2
Price	\$ 250 for complete Starter Kit exc GST & Freight
LCD Display	YES
MIN/MAX Temp Displayed	YES
Key Feature	<ul style="list-style-type: none"> Can review log without downloading
External Alarm	YES – Red LED
Audible or Visual Alarm	VISUAL ALERT

Rollex Group

Data Logger Types	Thermocron TCZ	Thermocron HC (+ Humidity)	Logtag	Wireless logger
Price	\$60	\$199	\$70	\$250
Software & Interface Cable	\$155	\$155	\$155	\$155
LCD Screen	No	No	No	No
Memory	2048 readings	4096 readings	8000	2,000
Audible Alarm	No	No	No	Software
Visual Alarm	No	No	Yes	Yes
Alarm Output	No	No	No	Software
Current Min/Max/Reset	No	No	No	Software
Accuracy	0.6°C	0.5°C	0.5°C	0.5°C
Resolution	0.125°C	0.0625°C	0.08°C	0.0625°
IP Rating	68	68	68	69
Sensor	Internal	Internal	Internal	Internal
Sensor length				
Size	16x16x10mm	16x16x10mm	86x55x9mm	30x30x10mm
Weight	5g	5g	35g	10g
Casing	Stainless steel	Stainless steel	Polycarbonate	Polyurethane
Battery	5+ years	5+ years	2+ years	2+ years
Security				
Calibration Cost	\$90	\$120	\$90	\$90
Temp range	-5° to 25°C	-30 to 85°C	-30 to 85°C	-30 to 85°C
Sample rate: (mins/sample)	1 to 255	1 to 255	1 to 65000	1 to 65 00

IP Ratings

What is an IP rating?

IP stands for Ingress Protection Rating. It is a two digit number used to indicate the level of protection the data logger's components have against intrusion of water, dust, and solid objects through accidental contact but not immersion.

The **FIRST digit** represents protection against ingress of solid objects

The **SECOND digit** represents protection against ingress of liquids

The larger the value of each digit, the greater the protection from that influence

For example:

The Intelligent MINI has an IP51 rating. This means it has DUST protection tolerance; that DRIPPING WATER has no harmful effects on the logger, and that it is fully protected.

**Please see table below for description of each digit*

Value	First Digit Protection against ingress of solids	Second Digit Protection against ingress of liquids
0	No protection	No protection
1	Protected against solid objects over 50mm e.g. hands, large tools	Protected against vertically falling drops of water.
2	Protected against solid objects over 12mm e.g. hands, large tools	Protected against direct sprays of water up to 15° from vertical.
3	Protected against solid objects over 2.5mm e.g. wire, small tools	Protected against direct sprays of water up to 60° from vertical.
4	Protected against solid objects over 1.0mm e.g. wires	Protected against water sprayed from any direction. Limited ingress permitted.
5	Limited protection against dust ingress (no harmful deposit)	Protected against low pressure water jets from any direction. Limited ingress permitted.
6	Totally protected against dust ingress.	Protected against high pressure water jets from any direction. Limited ingress permitted.
7		Protected against immersion between 15cm and 1M.
8		Protected against long periods of immersion under pressure.
9		

If you need more information on IP ratings, please visit this website: <http://en.wikipedia.org/wiki/IPrating>