Meat technology - information sheet

July 2009

Temperature Loggers

Control of temperature and knowledge of the temperature history of product is one of the fundamental requirements in the meat industry. Thermometers and temperature loggers are some of the 'tools of trade' of quality assurance personnel in meat plants.

A wide range of electronic digital thermometers and temperatures loggers is available. Single channel temperature recorders are widely used for verification that chilling and freezing processes are meeting regulatory and food safety requirements. The following table provides a comparative list of specifications and prices for a selection of the temperature loggers commonly used in Australia. This is not an exhaustive list as there are other makes available and the listed suppliers have additional models and probe designs suited to particular requirements. GST must be added to the prices quoted.

	TempTale 4*†	Thermocron	Hobo U12-013*	Temprecord Multi-Trip	Testo 175-T2*†	Tinytag Plus 2
Supplier Details	Sensitech Pty Ltd	Onsolution Pty Ltd	Onetemp Pty Ltd	Argus Realcold Pty Ltd	Testo	Hastings Data Loggers
	Unit 102, 63 Stead St	PO Box 1007	136 Richmond Road	Unit 1, 55 Musgrave Rd	PO Box 2041	PO Box 5112
	Sth Melbourne VIC 3205	Baulkham Hills NSW 2153	Marleston SA 5033	Coopers Plains QLD 4108	Bayswater VIC 3153	Port Macquarie NSW 2444
	Ph. 03 9686 5622	Ph. 02 9614 6417	Ph. 08 8352 3688	Ph. 07 3340 1150	Ph. 03 8761 6108	Ph. 02 6581 3900
	enquiries@sensitech.com.au	sales@onsolution.com.au	adelsales@onetemp.com.au	argusorders@realcold.com	info@testo.com.au	sales@hdl.com.au
	www.sensitech.com.au	www.onsolution.com.au	www.onetemp.com.au	www.argus.co.nz	www.testo.com.au	www.hdl.com.au
Specifications						
Dimensions (mm)	102 x 51 x 25	17.35 diameter x 5.89	74 x 58 x 22	129 x 73.5 x 14	82 x 52 x 30	80 x 59 x 34
Weight (g)	99.2 incl. probe	3	46	81	84	110
Sensor type	Thermistor	-	Thermistor	Thermistor	Thermistor	Thermistor
External probe size (mm)	120 x 4 (1.5 m cable)	-	102 x 3 (1.8 m cable)	100 x 5	125 x 4 (1.8 m cable)	125 x 3 (1.5 m cable)
Battery type/life	Lithium / 1 year	Lithium / 5 years	Lithium / 1 year	Lithium / 2 years	Lithium / 2.5 years	Lithium 3.6V / 2 years
User-replaceable battery	No	No	Yes	No	Yes	Yes
Case material	Plastic	Stainless steel	High-impact plastic		ABS plastic	Diaphalete plastic
Waterproof?	IP 67	Water resistant to 1 m	Non-condensing	IP 67	IP68	IP68

	TempTale 4*†	Thermocron	Hobo U12-012*	Temprecord Multi-Trip	Testo 175-T2*†	Tinytag Plus 2
Sensor range	-30ºC to +70ºC	-	-40ºC to +100ºC	-50ºC to +110ºC	-40ºC to +120ºC	-40ºC to +125ºC
Operating range	-30ºC to +70ºC	-40 to +85ºC	-20ºC to +70ºC	-20ºC to +60ºC	-35ºC to +70ºC	-40ºC to +85ºC
Claimed accuracy	(+/-) 0.55ºC	(+/-) 0.5ºC	(+/-) 0.35ºC	(+/-) 0.2ºC	(+/-) 0.3ºC	(+/-) 0.2ºC
Resolution	0.1ºC	0.5ºC or 0.06°C	0.03ºC	0.01ºC	0.1ºC	0.02ºC
Memory capacity	16,000 readings	2,048 readings	43,000 readings	8,000	16,000 readings	32,000 readings
Scan rate	10 s to 120 min	1 min to 255 min	1 s to 18 h	2 s to 36 h	10 s to 24 h	1 s to 10 days
Remote start	Yes	No	No	Yes	Yes	No
Prices (excl GST)						
Logger	$360 incl. external probe	$60	$284	$290 incl. external probe	$343	$299
External sensor			$138		$156	$79
Interface & software	$300	$155	$99	$178	$278	$139
Total cost (1 logger)	$660	$215	$521	$468	$777	$517

* These units have both an internal and an external sensor.

† These units have an LCD display.

Further Information

For further enquiries, contact Neil McPhail (Ph 07 3214 2119) at Food Science Australia, or individual suppliers of the loggers.