

CERTIFICATE OF CALIBRATION



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9385

Certificate No: UKAS 36296
Date Of Issue: 06 August 2025
Date Of Calibration: 06 August 2025
Issue No: 1
Issued By: M Rigby
Page: 1 of 1

Authorised Signatory

N Gargan

Customer: Deva Calibration Lab
Equipment: SET 35
Calibration Location: Deva Calibration Lab
Job Number: 36296

Procedure Number: ICM005 Rev C

Test Conditions:

Ambient Temperature: 22 °C

**The results stated on this certificate relate only to the equipment listed above*

Calibration Results:

Datalogger	Serial Number	-40°C Range		0°C Range		35°C Range	
		Applied	Indicated	Applied	Indicated	Applied	Indicated
MadgeTech CryoTemp	S41941	-39.6	-39.9	0.5	0.4	36.1	36.0
MadgeTech CryoTemp	S41950	-39.6	-39.7	0.5	0.5	36.1	36.0
MadgeTech CryoTemp	S42194	-39.6	-39.9	0.5	0.5	36.1	36.1
MadgeTech CryoTemp	S42206	-39.6	-39.7	0.5	0.5	36.1	36.1
MadgeTech CryoTemp	S42208	-39.6	-39.8	0.5	0.5	36.1	36.1
MadgeTech CryoTemp	S42214	-39.6	-39.7	0.5	0.5	36.1	36.1
MadgeTech CryoTemp	S42300	-39.6	-39.8	0.5	0.5	36.1	36.1
MadgeTech CryoTemp	S42439	-39.6	-39.6	0.5	0.6	36.1	36.2
MadgeTech CryoTemp	S44698	-39.6	-39.7	0.5	0.4	36.1	36.0
MadgeTech CryoTemp	S46625	-39.6	-39.6	0.5	0.5	36.1	36.1
MadgeTech CryoTemp	S46730	-39.6	-39.8	0.5	0.4	36.1	36.0

The measurement uncertainty on this certificate is ± 0.27 °C

The Logger Set is placed in a Climate Chamber and ran over the desired temperature range(s) for approximately 4 hours per temperature range. The data from the logger is downloaded and inserted in the Data Template. The data recorded by the UKAS certified Picolog Thermometer is also downloaded and inserted to the same template. The Data Template will calculate the Mean Value for the Applied and Indicated Temperature, and produce a Certificate.

END OF RESULTS

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service.

It provides traceability of measurement to the SI system of units and / or units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%

Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S41941.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



Withnell Sensors Ltd
The Old Silk Mill, Bury Lane, Withnell,
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4595

Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S41941
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

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Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S41941

Certificate Number

S41941.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S41941

Page 3 of 3

Certificate Number

S41941.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-85.1	-0.1	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S41950.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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4595

Company Information

Deva Medical Electronics
1 Chanders Court
Picow Farm Road
Runcorn
WA7 4UH Cheshire
United Kingdom

Order No

BACS

Manufacturer

MadgeTech

Model

Cryo-Temp

Serial Number

S41950

Description

MadgeTech Ultra Low Temperature Logger

Calibration/Activity Date

16 July 2025 - 17 July 2025

Check In Date

04 June 2025

Performed By

Tom Elstone

Location

Withnell Sensors Ltd

Notes

No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S41950

Certificate Number

S41950.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S41950

Page 3 of 3

Certificate Number

S41950.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-85.0	0.0	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S42194.29072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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4595

Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S42194
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	25 July 2025 - 29 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42194

Certificate Number

S42194.29072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: Q0746, Cert No: 02222_Q0746, Cal Due Date: 04-July-2026

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42194

Page 3 of 3

Certificate Number

S42194.29072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-80	1.00	-80.025	-80.0	0.0	0.103

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S42206.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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4595

Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S42206
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42206

Certificate Number

S42206.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42206

Page 3 of 3

Certificate Number

S42206.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-84.9	0.1	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S42208.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S42208
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42208

Certificate Number

S42208.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42208

Page 3 of 3

Certificate Number

S42208.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-84.7	0.3	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S42214.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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Web: www.withnellsensors.co.uk



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Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S42214
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

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Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42214

Certificate Number

S42214.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42214

Page 3 of 3

Certificate Number

S42214.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-84.8	0.2	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S42300.29072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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4595

Company Information

Deva Medical Electronics
1 Chanders Court
Picow Farm Road
Runcorn
WA7 4UH Cheshire
United Kingdom

Order No

BACS

Manufacturer

MadgeTech

Model

Cryo-Temp

Serial Number

S42300

Description

MadgeTech Ultra Low Temperature Logger

Calibration/Activity Date

25 July 2025 - 29 July 2025

Check In Date

04 June 2025

Performed By

Tom Elstone

Location

Withnell Sensors Ltd

Notes

No comments

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Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42300

Certificate Number

S42300.29072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: Q0746, Cert No: 02222_Q0746, Cal Due Date: 04-July-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42300

Page 3 of 3

Certificate Number

S42300.29072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-80	1.00	-80.025	-80.0	0.0	0.103

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S42439.29072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



Withnell Sensors Ltd
The Old Silk Mill, Bury Lane, Withnell,
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4595

Company Information

Deva Medical Electronics
1 Chanders Court
Picow Farm Road
Runcorn
WA7 4UH Cheshire
United Kingdom

Order No

BACS

Manufacturer

MadgeTech

Model

Cryo-Temp

Serial Number

S42439

Description

MadgeTech Ultra Low Temperature Logger

Calibration/Activity Date

25 July 2025 - 29 July 2025

Check In Date

04 June 2025

Performed By

Tom Elstone

Location

Withnell Sensors Ltd

Notes

No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42439

Certificate Number

S42439.29072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: Q0746, Cert No: 02222_Q0746, Cal Due Date: 04-July-2026

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S42439

Page 3 of 3

Certificate Number

S42439.29072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-80	1.00	-80.025	-80.1	-0.1	0.103

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S44698.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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4595

Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S44698
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S44698

Certificate Number

S44698.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S44698

Page 3 of 3

Certificate Number

S44698.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-84.7	0.3	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S46625.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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4595

Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S46625
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S46625

Certificate Number

S46625.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S46625

Page 3 of 3

Certificate Number

S46625.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-84.8	0.2	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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Certificate of Calibration

Page 1 of 3

Issued By Withnell Sensors Ltd
Date of Issue 29 July 2025
Certificate Number S46730.17072025

Approved Signatory
Name Anne-Marie Goldie
Signatory *A. Goldie*



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Web: www.withnellsensors.co.uk



4595

Company Information	Deva Medical Electronics 1 Chanders Court Picow Farm Road Runcorn WA7 4UH Cheshire United Kingdom
Order No	BACS
Manufacturer	MadgeTech
Model	Cryo-Temp
Serial Number	S46730
Description	MadgeTech Ultra Low Temperature Logger
Calibration/Activity Date	16 July 2025 - 17 July 2025
Check In Date	04 June 2025
Performed By	Tom Elstone
Location	Withnell Sensors Ltd
Notes	No comments

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Certificate of Calibration

Page 2 of 3

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S46730

Certificate Number

S46730.17072025

Calibration Procedure

WSWI50 Datalogger

Calibration Method

The unit under test was calibrated by comparison using a high accurate temperature reference standard of known and traceable values of uncertainty. The measuring sensor(s) was placed in a liquid temperature bath and allowed to equilibrate for a period of 30 mins or more at each setpoint. Then a collection of samples were recorded and the average sample reported.

Calibration Remarks

Due to no adjustments being made, the AsLeft is equal to the AsFound.

Test Conditions

Ambient Temperature: $22^{\circ}\text{C} \pm 4^{\circ}\text{C}$
Relative Humidity: $40\%\text{RH} \pm 25\%\text{RH}$

Reference Standards

[1] SN: AD001, Cert No: 02217_AD001, Cal Due Date: 20-June-2026

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Certificate of Calibration

Withnell Sensors Ltd, The Old Silk Mill, Bury Lane,
Withnell, Chorley, Lancashire PR6 8RX

Model: Cryo-Temp

Serial Number: S46730

Page 3 of 3

Certificate Number

S46730.17072025

CHANNEL 1

AS FOUND

Set-Point °C	Spec ±°C	Standard °C	UUT °C	Error °C	Measurement Uncertainty ±°C
-85	1.00	-85.027	-84.8	0.2	0.121

End of Results

The results relate only to the items tested, calibrated or sampled. Unless specified, tolerances will be taken from the manufacturer's current specification.

If a pass/fail statement has been reported on this certificate it has been done on the basis of whether the limit was breached by the measured result, extended by the measurement uncertainty interval at a confidence level of 95% ($k=2$). The statement of conformity is applicable only to the measurements where a pass/fail statement has been reported.

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