

CURVEX 3 BASIC OVEN LOGGER

CX3005, CX3010

DATASHEET

PRODUCT DESCRIPTION

The CurveX 3 Basic is an oven recorder designed for daily use in powder coating lines.

CurveX 3 Basic a 4-channel temperature data logger is built in a sturdy machined aluminium case that fulfils the basic needs for quality control in powder coating applications. Its ease of use and affordable price level makes it the ideal job-coaters instrument.



TQC has a wide range of interchangeable probes and heat barriers available that allow the CurveX 3 Basic to be used over the whole temperature range. All CurveX insulation boxes and CurveX probes, and the single heat absorber / bracket can be used with the CurveX 3 Basic. (See accessory list)

FEATURES

- Operate through only 3 large buttons
- Meaningful feedback of multi coloured LED's
- Factory calibrated for immediate use
- Downloads data through a standard USB port
- Rechargeable battery pack through USB connector
- Large memory of max. 160.000 readings
- Memory for 10 different batches, automatically overwrites the oldest results
- Programmable "paint type" memory for immediate "pass / fail" result
- Flat design, only 16 mm, for use in low clearance ovens
- Compatible with Ideal Finish Analysis software

SCOPE OF SUPPLY

CX3005 CurveX 3 Basic Data Logger comes with:

- CX3004 CurveX 3 Basic datalogger
- CM1105 USB Cable
- GL0103 USB Memory Stick with Ideal Finish Analysis software
- CX5010 Ideal Finish Analysis License Key
- CL0018 Factory calibrated, calibration certificate included
- CX3059 Small protective case

CX3010 CurveX 3 Basic Data Logger Kit comes with

- CX3004 CurveX 3 Basic datalogger
- CM1105 USB Cable
- GL0103 USB Memory Stick with Ideal Finish Analysis software
- CX5010 Ideal Finish Analysis License Key
- CL0018 Factory calibrated, calibration certificate included
- CX2005 Insulationbox
- CX3050 Insulation box logger bracket
- CX3060 Plastic Carrying Case

ORDERING INFORMATION

CX3005	CurveX 3 Basic Oven Logger
CX3010	CurveX 3 Basic Oven Logger Kit

SPECIFICATIONS

CurveX 3 Basic logger

Measuring range	0 °C to 500 °C / 32 °F to 932 °F
Operating temperature:	0 °C to 60 °C / 32 °F to 140 °F
Accuracy	±1 °C / 1.8 °F
Channels	4
Sample interval time	1 s to 60 min
Memory	10 batches with 16000, or 1 batch with 160000 readings
Display	Three multi-colour LED's
Interface	USB
Housing material	Anodised Aluminium
Dimensions (D x W x H)	100 x 85 x 16 mm / 3.94 x 3.35 x 0.63 inch
Power supply	Rechargeable battery
Battery life time*	1200 hour continuous use, 27 years in stand-by
Weight	190 g / 6.7 oz.

TQC Ideal Finish Analysis software

Supported Operating Systems	Windows Vista, Windows 7 and Windows 8 / 8.1
Platform	32 b or 64 b
Memory	32 MB
Required Hard Disk space	128 MB

*After 300 cycles charge from 0 to 100% the battery will retain a capacity of 80%.
In general such battery need replacement after approx. 2 years continuous use.

USE

The CurveX 3 Basic is placed in an insulated box before it passes through the oven. The instrument measures and registers the temperature at several places of the work piece. The preset paint type specification is evaluated against the temperature over time resulting in a clear cure pass or fail. The measurements are uploaded to a PC via the oven temperature data logger's USB port and analysed using the Ideal Finish software program.

SPECIAL CARE

- Though robust in design, this instrument is precision-machined. Never drop it or knock it over.
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Do not use compressed air to clean the instrument.

- Always keep the instrument in its case when not in use.
- We recommend annual calibration.

Batteries in carry-on baggage (aircraft cabin)

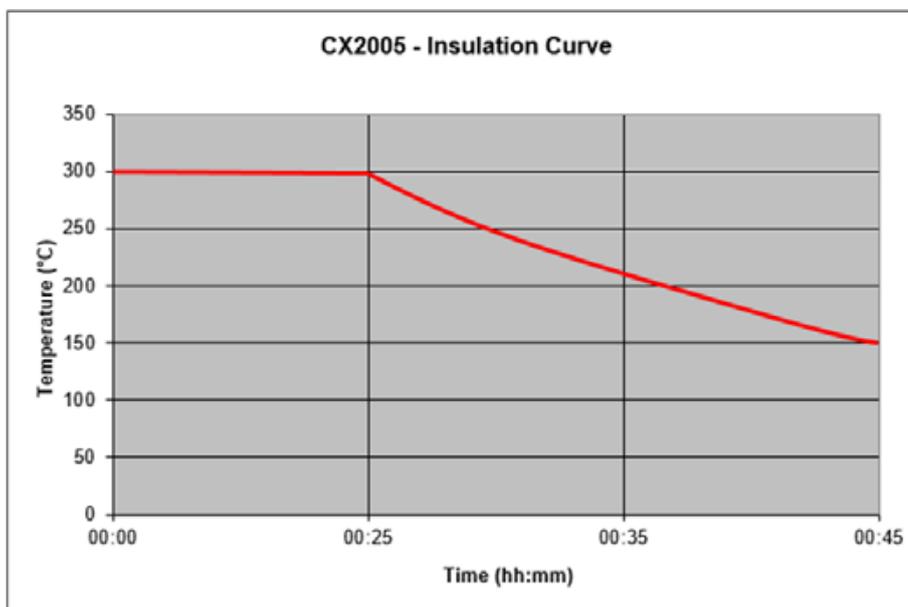
The battery employed in our CurveX 3 Basic is a generic single cell Lithium-Ion battery, 3.7V 1400mAh. The battery employed in the CurveX 3 Basic has a capacity of 5.18 Watt-hours, and is rated for low-power use only. A protection circuitry has been applied to the CurveX 3 Basic mainboard as per best practice.

Based on US DOT regulations (49 CFR, Sec. 175.10), the CurveX 3 Basic battery satisfies all demands, most notably:

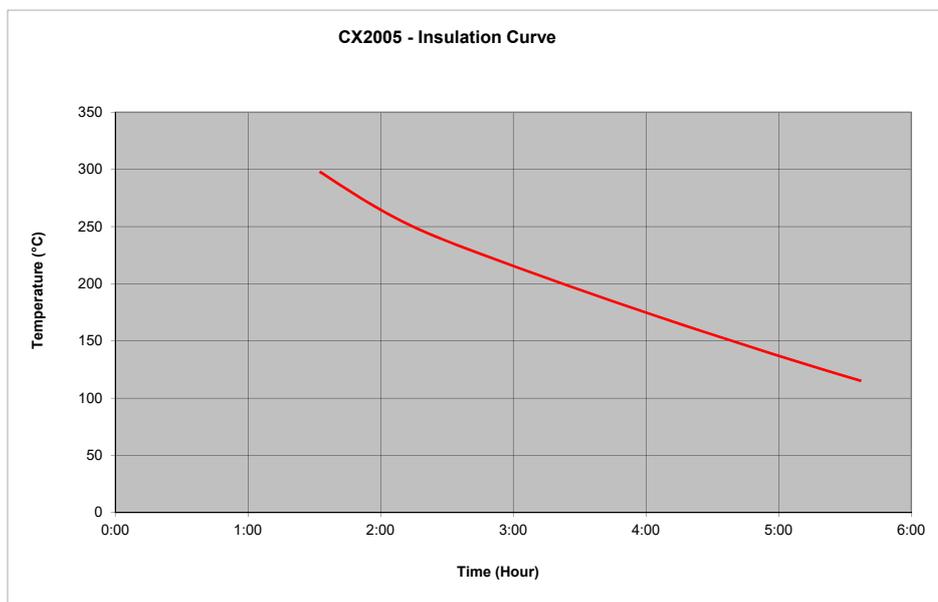
- The battery is non-replaceable for the end user and therefore does not classify as 'spare'
- The battery is rated below 100 Watt-hours per battery
- The battery is protected from damage and short circuit

The battery is assembled into an end product and classified to be freely transported on aircraft both in carry-on and check-in luggage. When carried-on, please keep the provided product documentation with the device in order to be able to provide regulatory agencies relevant information about your device when requested.

TEST CONDITIONS FOR USE WITHOUT HEAT ABSORBER



Tested in combination with the **Insulation Box CX2005** and **Insulation Box Logger Bracket CX3050** with a start temperature of 20°C (68°F). (So without heat absorber)



Tested with the **insulation box CX2005** in combination with the **energy absorber CX2011** (a high density energy-collecting media) with a start temperature of 20°C (68°F).

ACCESSORIES

Air temperature probes for CurveX

Art. No	Application	Probe Mounting	Cable Type	Cable Length	Max Temperature
CX2020	Air	Spring clamp	Coiled polyurethane	1500 mm / 59,06 inch	300°C / 572°F
CX2021	Air	Spring clamp	Coiled polyurethane	3000 mm / 118,11 inch	300°C / 572°F
CX2022	Air	Spring clamp	Coiled polyurethane	5000 mm / 196,85 inch	300°C / 572°F
CX2026	Air	Spring clamp	Coiled polyurethane	10500 mm / 34,45 ft	300°C / 572°F
CX2023	Air	Spring clamp	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2024	Air	Spring clamp	Stainless steel braided lead	3000 mm / 118,11 inch	480°C / 896°F
CX2069	Air	Magnet	Coiled polyurethane	1500 mm / 59,06 inch	300°C / 572°F
CX2068	Air	Magnet	Coiled polyurethane	3000 mm / 118,11 inch	300°C / 572°F
CX2073	Air	Magnet	Coiled polyurethane	5000 mm / 196,85 inch	300°C / 572°F

Object / Surface temperature probes for CurveX

Art. No	Application	Probe Mounting	Cable Type	Cable Length	Max Temperature
CX2030	Surface	Spring clamp	Coiled polyurethane sheath	1500 mm / 59,06 inch	300°C / 572°F
CX2040	Surface	Spring clamp	Coiled polyurethane	3000 mm / 118,11 inch	300°C / 572°F
CX2041	Surface	Spring clamp	Coiled polyurethane	5000 mm / 196,85 inch	300°C / 572°F
CX2045	Surface	Spring clamp	Coiled polyurethane	10500 mm / 34,45 ft	300°C / 572°F
CX2046	Surface	Vice clamp	Coiled polyurethane	10500 mm / 34,45 ft	300°C / 572°F
CX2048	Surface	Spring clamp	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2049	Surface	Spring clamp	Stainless steel braided lead	3000 mm / 118,11 inch	480°C / 896°F
CX2050	Surface	Magnet	Coiled polyurethane	1500 mm / 59,06 inch	300°C / 572°F

CX2060	Surface	Magnet	Coiled polyurethane	3000 mm / 118,11 inch	300°C / 572°F
CX2062	Surface	Magnet	Coiled polyurethane	5000 mm / 196,85 inch	300°C / 572°F
CX2061	Air	Magnet	Coiled polyurethane	10500 mm / 34,45 ft	300°C / 572°F
CX2055	Surface	Magnet	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2056	Surface	Magnet	Stainless steel braided lead	3000 mm / 118,11 inch	480°C / 896°F
CX2065	Universal	Ring	Coiled polyurethane	1500 mm / 59,06 inch	300°C / 572°F
CX2066	Universal	Ring	Coiled polyurethane	3000 mm / 118,11 inch	300°C / 572°F
CX2072	Universal	Ring	Coiled polyurethane	5000 mm / 196,85 inch	300°C / 572°F
CX2085	Universal	Ring	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2086	Universal	Ring	Stainless steel braided lead	3000 mm / 118,11 inch	480°C / 896°F
CX2090	Universal	Ring	Inconel tube	1500 mm / 59,06 inch	1000°C / 1832°F
CX2091	Universal	Ring	Inconel tube	3000 mm / 118,11 inch	1000°C / 1832°F
CX2092	Universal	Ring	Inconel tube	5000 mm / 196,85 inch	1000°C / 1832°F
CX2063	Air/Surface	Wire	Coiled polyurethane	1500 mm / 59,06 inch	300°C / 572°F
CX2064	Air/Surface	Wire	Coiled polyurethane	3000 mm / 118,11 inch	300°C / 572°F
CX2067	Air/Surface	Wire	Coiled polyurethane	5000 mm / 196,85 inch	300°C / 572°F
CX2087	Air/Surface	Wire	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2088	Air/Surface	Wire	Stainless steel braided lead	3000 mm / 118,11 inch	480°C / 896°F
CX2093	Air/Surface	Wire	Inconel tube	1500 mm / 59,06 inch	1000°C / 1832°F
CX2094	Air/Surface	Wire	Inconel tube	3000 mm / 118,11 inch	1000°C / 1832°F

Infra-red air temperature probes for CurveX

Art. No	Application	Probe Mounting	Cable Type	Cable Length	Max Temperature
CX2097	Air	Spring clamp	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2098	Air	Spring clamp	Stainless steel braided lead	5000 mm / 196,85 inch	480°C / 896°F

Infra-red surface temperature probes for CurveX

Art. No	Application	Probe Mounting	Cable Type	Cable Length	Max Temperature
CX2095	Surface	Spring clamp	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2096	Surface	Magnet	Stainless steel braided lead	1500 mm / 59,06 inch	480°C / 896°F
CX2099	Surface	Magnet	Stainless steel braided lead	5000 mm / 196,85 inch	480°C / 896°F

Standard insulation boxes for CurveX

Art. No	Dimensions Depth	Dimensions Width	Dimensions Height	Approximate Weight	Heat Sink	Max Temperature
CX2004	240 mm / 9,45 inch	105 mm / 4,13 inch	50 mm / 1,97 inch	1600 g / 3,53 lbs	included	300°C / 572°F
CX2009	240 mm / 9,45 inch	105 mm / 4,13 inch	60 mm / 2,36 inch	1700 g / 3,75 lbs	included	300°C / 572°F
CX2003	255 mm / 10,04 inch	225 mm / 7 8,86 inch	0 mm / 2,76 inch	2650 g / 5,85 lbs	CX2014 *	300°C / 572°F
CX2005	255 mm / 10,04 inch	225 mm / 8,86 inch	140 mm / 5,51 inch	4200 g / 9,26 lbs	CX2011 *	300°C / 572°F

* to be ordered separately

Absolute silicone free insulation boxes for CurveX

Art. No	Dimensions Depth	Dimensions Width	Dimensions Height	Approximate Weight	Heat Sink	Max Temperature
CX2300	240 mm / 9,45 inch	225 mm / 8,86 inch	140 mm / 5,51 inch	4200 g 9,26 lbs	CX2011 *	180°C / 356°F
CX2017	240 mm / 9,45 inch	225 mm / 8,86 inch	140 mm / 5,51 inch	4200 g 9,26 lbs	CX2011 *	500°C / 932°F
CX2002	280 mm / 11,02 inch	230 mm / 9,06 inch	180 mm / 7,09 inch	8000 g / 17,64 lbs	CX2011 * CX2012 *	500°C / 932°F

* to be ordered separately

Other Accessories

CX2013	Heat sink LDPE Add-on module for insulation box CX2002, CX2017 and 2005
CX2014	Heat sink U-shaped for insulation box CX2003
CX2011	Heat sink LDPE for insulation box CX2002, CX2017 and CX2005
CX2012	Extra heat sink for insulation box CX2002
CX3050	Insulation box logger bracket
CX2100	CurveX Basic probe identification kit (1-6)
CM1105	USB Cable
CX2077	Ideal Finish Analysis Software on CD with printed manual in box

SAFETY PRECAUTIONS

- Do not exceed the specified time at temperature limits in order to protect the equipment.
- Maintenance and inspection should be carried out at the correct intervals
- Operating personnel should be informed before starting with maintenance or repair work
- Do not open the instrument. In case of malfunction always consult the manufacturer. Not suitable to be put in the sun or in the high light

DISCLAIMER

The right of technical modifications is reserved.

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