

CryoTouch 20 Cryoscope, with "lactose-free" function

Professional analysis of added water in milk and cream samples



CryoTouch 20 is a 20-sample carousel-based automatic equipment for the rapid determination of the milk cryoscopic point variation caused by added water, in full compliance with the IDF-ISO 5764:2009 international reference standard.

This next generation cryoscope includes a lot of useful features that the most recent technology allows: a full colour 7" touchscreen display, real-time visualization of the freezing curve, stable memory for more than 4,000 results, a PC software for data handling, a USB port for downloading all data to a pen drive and much more.

CryoTouch 20 allows milk laboratories and dairy industries to perform official analysis based on ISO reference method. The new "lactose-free" function helps milk and dairy industries monitor the process of removal of lactose in milk and cream.

New functions, great advantages:

- Choice among 6 values for setting the reference value and between 2 different formula to calculate the added water %
- Choice between 2 reading modes: plateau mode according to ISO method or fixed-time mode
- Real-time graph of the sample temperature during each analysis
- An alphanumeric ID code can be added to each sample, easily
- Optional barcode reader for a quick sample identification (*it requires an additional RS232 port to be requested when ordering*)

- Results shown in different colours for a quick identification of anomalies or critical values
- **New “Lactose-free milk” function to control the removal of lactose in milk and cream**
- Stable memory for 2 different calibration curves: the typical one in compliance with ISO requirements and a second one to be set according to the user's needs (*i.e.: Lactose-free curve*)
- Stable memory for up to 4,000 results
- Easy download of test results to a USB pen drive
- Real time PC monitoring or quick download of test results to a PC of test results thanks to CryoSoft Touch data handling software
- Immediate visualization of error messages

Technical characteristics:

- Sample capacity: up to 20 samples
- Full colour 7” touchscreen display
- Bath with Peltier cells controlled by software
- Operating ambient temperature: +5°C to 36°C
- Automatic calibration
- Lash and agitation width controlled by software
- Selectable °C, °Hortvet and water% units
- Sample volume: 2 or 2.5 mL
- Analysis duration: about 2 minutes/test
- Warm up time: about 5 minutes
- Resolution: $\pm 0.0005^{\circ}\text{C}$
- Reproducibility (*on bovine milk*): $\pm 0.0025^{\circ}\text{C}$
- USB port for data downloading to a pen drive
- 2 x RS232 ports for connecting the provided thermal printer and an optional PC
- An additional RS232 port can be added for connecting an optional barcode reader
- Power absorption: max. 150 W
- Dimensions: 285x485x360 mm (*wxdxh, head down*)
- Net weight: 17.4 Kg



Look at the following screenshots from the new CryoSoft Touch data handling software:

CryoSoft Touch

File Settings List of results List of alarms Password Info

COM Status
☒ COM
☐ Link

Stop

Analysis

Prog. Number 00000240 Calibration ISO Sample 1
 Date 11/04/2018 Type of milk --- ID ---
 Time 14:36:19 Reference --- m°C Temperature -512.0 m°C
 Alarms 00000000 Water STD %

Nr. RX Errors
 0
 Error Reset

| Prog. Nr. | Date | Time | Sample | Id | Temperature | Water [%] | Ref. | Alarms [Hex] | Curve | Type | Notes |
|-----------|------------|----------|--------|----|-------------|-----------|------|--------------|-------|------|-------|
| 00000236 | 11/04/2018 | 14:26:09 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- | |
| 00000237 | 11/04/2018 | 14:28:02 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- | |
| 00000238 | 11/04/2018 | 14:30:03 | 1 | | -511.5 m°C | STD | --- | 00000000 | ISO | --- | |
| 00000239 | 11/04/2018 | 14:34:19 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- | |
| 00000240 | 11/04/2018 | 14:36:19 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- | |

List of results

File

| Prog. Nr. | Date | Time | Sample | Id | Temperature | Water [%] | Ref. | Alarms [Hex] | Curve | Type |
|-----------|------------|----------|--------|----|-------------|-----------|------------|--------------|--------------|----------|
| 00000001 | 28/03/2018 | 15:07:34 | 1 | | -513.5 m°C | STD | --- | 00000000 | Lactose-free | --- |
| 00000002 | 28/03/2018 | 15:10:10 | 1 | | -512.5 m°C | STD | --- | 00000000 | Lactose-free | --- |
| 00000003 | 28/03/2018 | 15:13:22 | 1 | | -515.5 m°C | STD | --- | 00000000 | Lactose-free | --- |
| 00000004 | 28/03/2018 | 15:15:44 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000005 | 28/03/2018 | 15:17:44 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000006 | 28/03/2018 | 15:20:11 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000007 | 28/03/2018 | 15:35:57 | 1 | | -516.0 m°C | 0.72 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000008 | 28/03/2018 | 15:39:06 | 1 | | -517.5 m°C | 0.45 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000009 | 28/03/2018 | 15:42:16 | 1 | | -516.0 m°C | 0.72 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000010 | 28/03/2018 | 15:45:23 | 1 | | -521.0 m°C | 0.00 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000011 | 28/03/2018 | 15:48:41 | 1 | | -518.5 m°C | 0.27 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000012 | 28/03/2018 | 15:51:53 | 1 | | -516.0 m°C | 0.72 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000013 | 28/03/2018 | 15:55:08 | 1 | | -518.0 m°C | 0.36 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000014 | 28/03/2018 | 15:58:35 | 1 | | -517.0 m°C | 0.54 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000015 | 28/03/2018 | 16:01:44 | 1 | | -516.0 m°C | 0.72 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000016 | 28/03/2018 | 16:05:27 | 1 | | -516.5 m°C | 0.63 | -520.0 m°C | 00000000 | ISO | Cow milk |
| 00000017 | 29/03/2018 | 16:13:40 | 1 | | -552.5 m°C | STD | --- | 00000000 | ISO | --- |
| 00000018 | 29/03/2018 | 16:16:08 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000019 | 29/03/2018 | 16:18:14 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000020 | 29/03/2018 | 16:20:24 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000021 | 29/03/2018 | 16:23:11 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000022 | 30/03/2018 | 08:59:24 | 1 | | -511.5 m°C | STD | --- | 00000000 | ISO | --- |
| 00000023 | 30/03/2018 | 09:23:32 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |
| 00000024 | 30/03/2018 | 09:26:38 | 1 | | -512.0 m°C | STD | --- | 00000000 | ISO | --- |