



## TEMPERMETER DCS TM-10

Technical description and main data





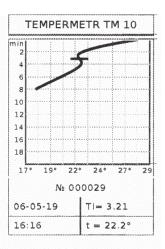
**Tempermeter** is a specialized device used to check the quality of chocolate tempering. Tempering is a process that involves heating and cooling chocolate to specific temperatures to ensure it has the right crystal structure, giving it a glossy finish, snap, and smooth texture.

The Tempermeter DCS TM-10 helps measure whether the chocolate has been tempered correctly, ensuring it's ready for professional use.

- The Tempermeter has PLC on board. There is no need to connect to the computer to make the changes in setting up the Tempermeter parameters. The operator can adjust any parameters from the display of the Tempermeter and store them for different recipes for future
- Light and strong design. We are using an industrial enclosure and special forced plugs from German suppliers.
- Powerful Electronic cooler. Fast cooling and short test.
- Thermostable heating chamber of the chocolate sensor
- Easy start of a measure. After placing the chocolate sample just push a button.
- Live view of the graph creation during the test
- High-resolution color sensor display of the operator with real-time indication. Multilanguage operator's menu
- Indication of Temperature in Celsius degree °C or Fahrenheit degree °F



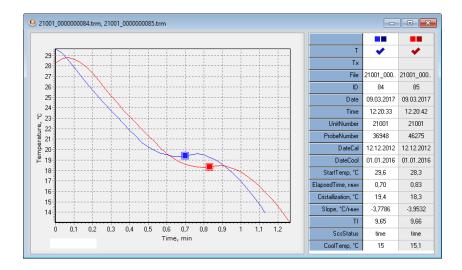
- Operators can print the results of measurement from the built-in printer just after the test or from stored data of the Tempermeter.
- Possibility of view the history of the tests and print out the results from the screen of the Tempermeter
- Possibility of indication temperature of crystallization on the graph
- Connection to Windows PC via Ethernet and WiFi interfaces for synchronization, storage, and analysis of the results of the measurement. The user can connect to the software several Tempermeters and collect all data on one computer.



- The Windows software is included in the scope of supply and give to customer a following
  - Copy of the data from the Tempermeter to PC

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		Date	Time	Prob Number		DateCont	StartTomp,	ElapzedTime,	Cristallization, *C		n	SceSta
1	81	10.05.2016	13:28:42	44513	10.05.2016	10.05.2016	27,5	26	24,9	0	15,931	level
8	82	10.05.2016	13:28:42	44513	10.05.2016	10.05.2016	27	52	23,4	0,193	5,153	free
3	83	21.05.2016	10:18:42	51833	15.10.2016	01.02.2016	25	42	22,4	0,25	7,153	nerual
4	84	05.07.2016	13:15:57	28231	12:12:2012	01.01.2016	27,5	50	17,7	0,032998	48	fron
5	85	05.07.2016	13:15:57	18612	12:12:2012	01.01.2016	29,1	50	19,1	0,044908	7	free
6	86	05.07.2016	13:15:57	01227	12:12:2012	01.01.2016	28,1	50	18,2	0,037193	35	free
0	87	05.07.2016	13:15:58	05334	12:12:2012	01.01.2016	29,5	44	20,2	4),1245	48	free
8	88	05.07.2016	13:15:58	14514	1212 2012	01.01.2016	30,7	44	22,5	0	22	free
9	89	05.07.2016	13:15:58	08017	12:12:2012	01.01.2016	29,1	44	19,9	0,1245	0	free
m	90	05.07.2016	13:15:58	58452	12:12:2012	01.01.2016	29,1	50	19	0,044123	49	free
11	91	05.07.2016	13:15:59	11316	12:12:2012	01.01.2016	29,8	44	21,7	0	13	fron
12	92	05.07.2016	13:15:58	27378	12:12:2012	01.01.2016	29,2	50	19,2	0,045278	30	free
13	93	05.07.2016	13:15:58	25211	12:12:2012	01.01.2016	29,1	50	19,1	0,044908	26	fires
14	94	05.07.2016	13:15:58	30790	12:12:2012	01.01.2016	27,1	50	17,4	0,030263	13	free
15	95	05.07.2016	13:16:00	38671	12:12:2012	01.01.2016	30,6	44	22,4	0	12	free
18	98	05.07.2016	13:16:01	02978	12:12:2012	01.01.2016	29.7	44	21.6	0	10	free

- To see the data on the screen of the PC
- To check the trend of the Temperindex for choosing period
- To see the several temperature curves simultaneously



- There is possibility to obtain the results to the Android mobile devices and share it via any of the communication application.



The smart case for storage and transportation of the Tempermeter is included

## **Specification**

Parameter Name	Value			
Temperature measurement range by external sensor, °C	-50+10			
Imprecision of reproduction of temperature on the display screen, °C	±0.1			
Imprecision of reproduction of temperature in memory, °C	±0.01			
Temperature range in the refrigerator, °C	-20+2			
Constancy of setting the temperature of the refrigerator, °C	±0.1			
Cooling time from 20°C o minus 0°C, min	4			
Temperature setting range in the sensor heating chamber, °C	3520			
Discreteness of the measurement time shown on the display, sec	2			
The number of experiments stored simultaneously in the appliance memory	9000			
Maximum time allotted for one experiment in the archive, min	20			
Power of heating elements, W	40			
Interfaces	USB flash drive, Ethernet, WiFi			
Indication (Touch Screen)	800 x 480 pixels			
AC supply voltage, V	230110V, 60/50 Hz			
Maximum power consumption, W	75			
Ambient temperature range, °C	5 ± 22			
Mass, g.	no more 2400			
Overall dimensions, mm.	235x220x140			
Lower limit value of ambient temperature, °C	plus 18			
The upper limit value of the ambient temperature, °C	plus 26			



**Dynamic Control Systrems LLC** www.tempermeter.com

