

Magnet N°: 2023

Thermometer N°: C.X.L.S.X13726

TEMPERATURE THERMOMETER TT821 VERIFICATIONS

1 2 3 4

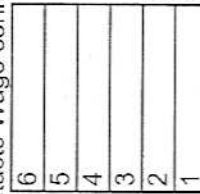
Thermometer situation	Date	Cold mass Temperature °C	Resistance V+, V-, I+, I- Ω	Resistance V-, I- Ω	Resistance V+, I+ Ω	Resistance V+, V-, I+, I-/GND MΩ	Checked by	Remark
Expected value		10 < T < 32	Ref. Value (1) +/- 3Ω	Ref. Val.(1) +/- 1Ω	Ref. Val.(1) +/- 1Ω	R > 40		
Reference value given by CERN	11-09-02	293 K	58,49	8,44	8,55	OVL	CERN	
At delivery	10-03-03	13°C.	59,01	8,38	8,28	-	PAVESE	
After mounting on the half-yoke	14-03-03	-14°C.	59,05	8,34	8,26	OVLΔ	PAVESE	
After turning over of the half-yoke	17-03-03	15°C.	59,11	8,34	8,24	OVLΔ	PAVESE	
After pressing of the yoke	24-03-03	17°C.	58,57	8,49	8,38	OVLΔ	PAVESE	
After longitudinal welding	28-03-03	15°C.	58,67	8,41	8,30	OVLΔ	PAVESE	
After finishing of instrum. wiring	25-06-03	33	56,55	8,64	8,50	OVLΔ	PAVESE	
After complete electrical test	26-06-03	28	56,69	8,59	8,47	OVLΔ	PAVESE	
After welding of end covers	27-06-03	30	56,72	8,64	8,45	OVLΔ	LEVIRO	
After mounting of capillary (IFS)	04-07-03	28	57,04	7,81	4,70	OVLΔ	PAVESE	
After pressure test	08-07-03	28	57,14	7,79	4,67	OVLΔ	PAVESE	
After complete electrical test	08.07.03	28	57,11	7,81	4,69	OVLΔ	LEVIRO	

Ω4W meth. Ω2W meth. Ω2W meth. Ω2W method

(1) The reference values are those written in the last row of the Thermometer Traveller supplied by CERN with the thermometer itself. For information the temperature sensitivity at ambient temperature is approximately -0.25 Ω / °C

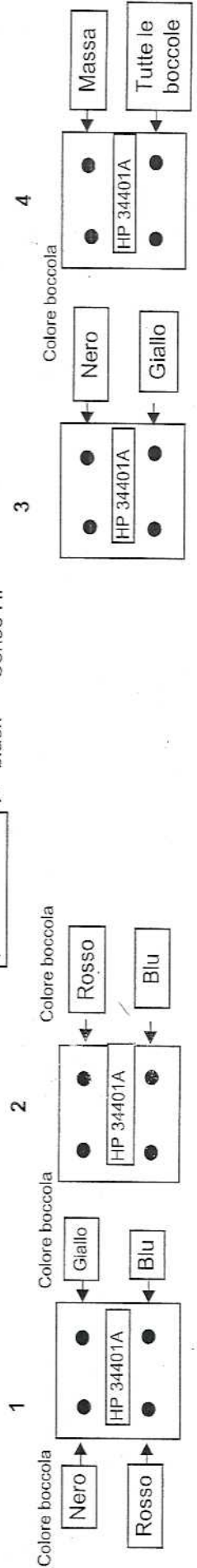
Resistance measurements are performed with Keithley 2000 or Hewlett Packard 34401A multimeter.

6 contacts Wago connector Multimeter



- 1 - green Input LO
- 2 - yellow Input HI
- 3 - red Sense LO
- 4 - black Sense HI

Scheme for 4 wires resistance measurement method Ω4 function



MA031211

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