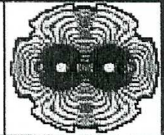




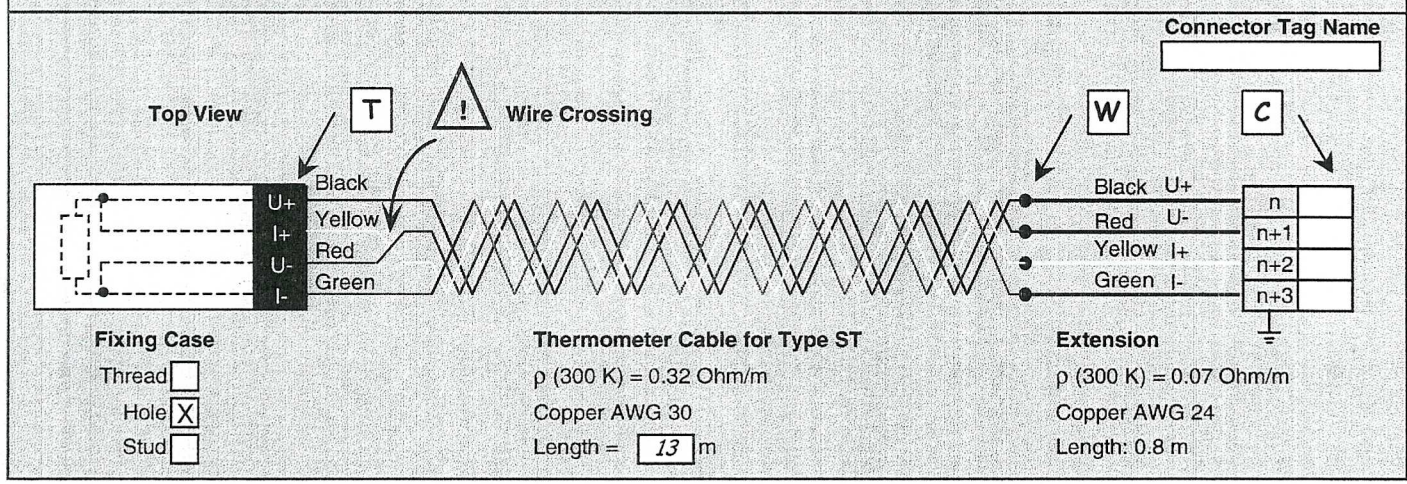
Cryogenic Thermometer Traveller TT821



DESCRIPTION

Part description:	Cryogenic thermometer	Top Assembly Identification:	Magnet
Part Identification:	HCQITESCXT-CR013781	Manufactured By:	ANSALDO ENERGIA Spa
Serial Number:	CX_LS_X11693		

CABLING



CHECKS

Intervention	Date/ DD-MMM-YYYY	Check Point	R(U+,U-,I+,I-) [Ohm] 4W	R(U-,I-) [Ohm] 2W	R(U+,I+) [Ohm] 2W	R(U+,GND) [Ohm] 2W	Temperature [K]	Firm/Laboratory	Checked by
Calibration	05-Mar-2001	T	51.7	0.18	0.18	OVL	300	IPN	Joly
Expedition	11-Sep-2002	W	52.78	8.45	8.51	OVL	293	CERN	Vauthier
Reception		W						Ansaldo	
Control 1		T W C						Ansaldo	
Control 2		T W C						Ansaldo	
Control 3		T W C						Ansaldo	
Control 4		T W C						Ansaldo	
Control 5		T W C						Ansaldo	
Control 6		T W C						Ansaldo	
Control 7		T W C						Ansaldo	
Control 8		T W C						Ansaldo	
Expedition		T W C						Ansaldo	
Reception		T W C						Ansaldo	
		T W C							
		T W C							
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THERMOMETER TT821 VERIFICATIONS

Magnet N°: 2025
 Thermometer N°: CX-LS-XA693

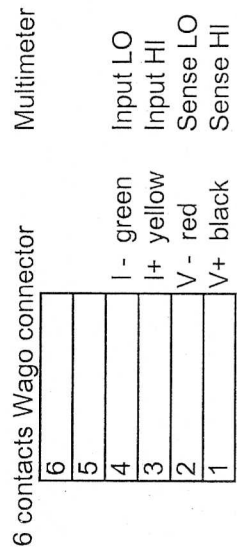
1 2 3 4

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								
At delivery	11-03-02	293.3 K	52.78	8.45	8.51	011		
After mounting on the half-yoke	21-03-03	21.5 °C	52.23	8.56	8.53		RUSSO	
After turning over of the half-yoke	25-03-03	17 °C	52.71	8.40	8.38	0VLD	PAVESE	
After pressing of the yoke	26-03-03	17 °C	52.77	8.42	8.40	0VLD	PAVESE	
After longitudinal welding	12-05-03	26 °C	52.18	8.62	8.58	0VLD	PAVESE	
After finishing of instrum. wiring	15-05-03	22 °C	52.02	8.67	8.54	0VLD	PAVESE	
After complete electrical test	05-06-03	24	51.56	8.31	8.27	0VLD	PAVESE	
After winding of end covers	10-06-03	28	51.59	8.40	8.37	0VLD	PAVESE	
After mounting of capillary (IFS)	12-06-03	25	51.53	8.28	8.26	0VLD	PAVESE	
After pressure test	21-06-03	28	51.48	7.87	7.76	0VLD	CASELLA	
After complete electrical test	25-06-03	27	51.21	7.91	7.92	0VLD	PAVESE	
After complete electrical test	25-06-03	27	51.23	7.91	7.89	0VLD	PAVESE	

Ω4W meth. Ω2W meth. Ω2W meth.

(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.



Scheme for 4 wires resistance measurement method Ω4 function

