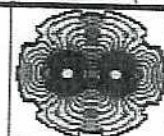




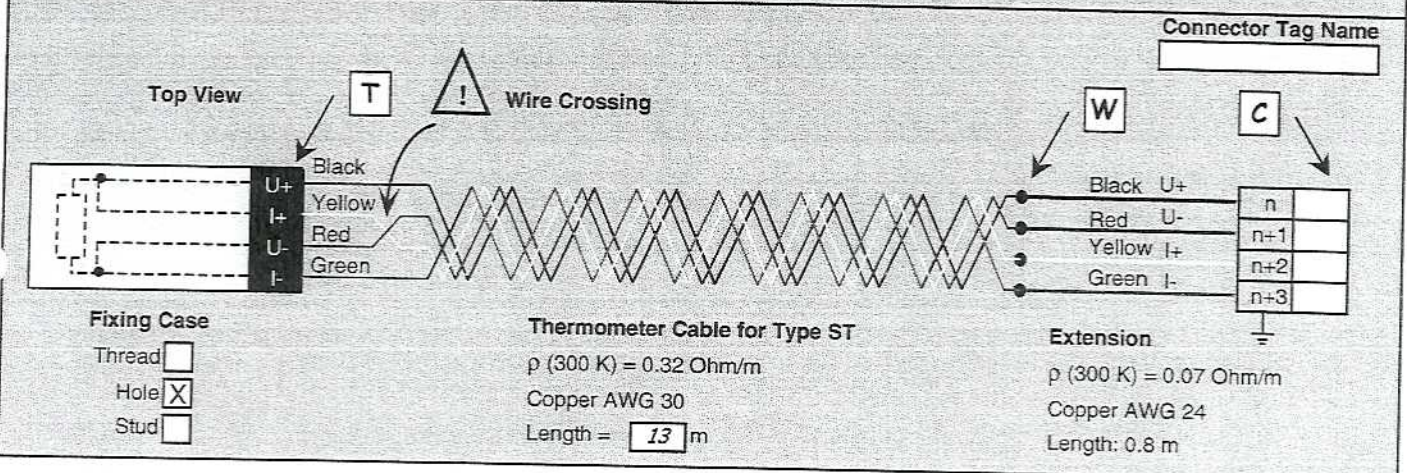
Cryogenic Thermometer Traveller TT821



DESCRIPTION

Part description:	Cryogenic thermometer	Top Assembly Identification:	Magnet
Part Identification:	HCQITESCXT-CR013801	Manufactured By:	ANSALDO ENERGIA Spa
Serial Number:	CX_LS_X11789		

CABLING



Fixing Case

Thread

Hole

Stud

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	58	0.18	0.18	OVL	300	IPN	Joly
Expedition	11-Sep-2002	W	59.39	8.55	8.57	OVL	292	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						Ansaldo	
		T W C						Ansaldo	
		T W C						Ansaldo	
		T W C						Ansaldo	
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		T W C						Ansaldo	
		T W C						Ansaldo	
		T W C						Ansaldo	

THERMOMETER TR821 VERIFICATION

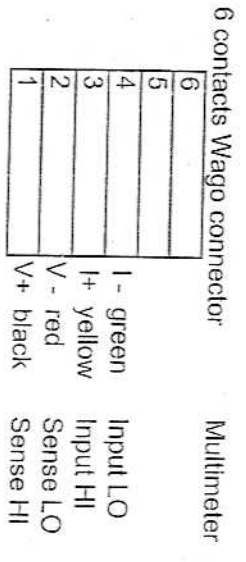
Magnet N°: 2002
 Thermometer N°: ex. 19-244489

1 2 3 4

Thermometer situation	Date	Gold 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	11-09-2002	292 K	59,39	8,55	8,57	OVL	CERN	
At delivery	08-05-2003	22 °C	58,42	8,70	8,68	/	PAVSE	
After mounting on the half-yoke	23-05-2003	23 °C	58,20	8,68	8,63	OVLΔ	PAVSE	
After turning over of the half-yoke	26-05-03	23 °C	58,26	8,66	8,63	OVLΔ	PAVSE	
After pressing of the yoke	27-05-03	24 °C	58,43	8,68	8,62	OVLΔ	PAVSE	
After longitudinal welding	30-05-03	24 °C	58,01	8,73	8,64	OVLΔ	PAVSE	
After finishing of instrum. wiring	18-06-03	28	57,68	8,40	8,33	OVLΔ	PAVSE	
After complete electrical test	18-06-03	31	57,63	8,43	8,35	OVLΔ	PAVSE	
After welding of end covers	25-06-03	28 °C	57,41	8,42	8,31	OVLΔ	LEVERO	
After mounting of capillary (IFS)	01-07-03	28	57,46	8,80	8,74	OVLΔ	PAVSE	
After pressure test	04-07-03	23	57,87	8,69	8,64	OVLΔ	PAVSE	
After complete electrical test	04-07-03	23	57,90	8,69	8,67	OVLΔ	PAVSE	

(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 Ω24 function



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e/3