ZSJZ

AQAP 2110:2009
PN-EN ISO 9001:2009
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DOLAM

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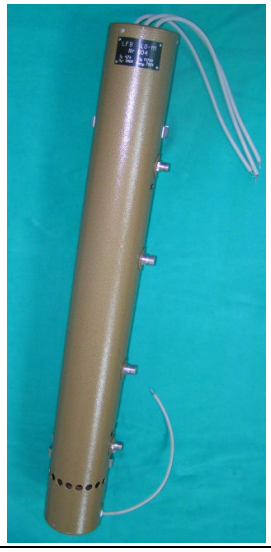

TRAVELING WAVE TUBE: LO-111S

High Power Pulse TWT (with Ring and Loop Slow Wave Circuit)
The pulsed traveling wave tubes are used as drivers or as output tubes in test equipment

I. RF Performance Requirements

	Subband						
Lamp models LO-111S	**C**	**D**	**C**	**D**	**C**	**D**	
Technical data	min.		typical		max.		Unit
Frequency range	1,34	1,24			1,44	1,34	GHz
RF Peak output power	10						[kW]
Gain	30						[dB]
Duty					1		[%]
Load VSWR					2		-

II. RF Other Parameters

Technical data	min.	typical	max.	Unit
Noise		34	40	[dB]
RF input connector	N 50			
RF output connector	N 50			

III. Electrical Requirements

Technical data	min.	typical	max.	Unit
Cathode voltage	10,0		13,0	[kV]
Grid-bias voltage	-200		-170	[V]
Positive pulse grid voltage	700		1000	[V]
Cathode pulse current			5,0	[A]
Grid pulse current			0,5	[A]
Impulse current delay line (with signal)			1,2	[A]
Impulse current delay line (without signal)			0,5	[A]
Pulse width			27	[µS]
Pulse rate			1	[%]
Collector voltage	-4,0		0	[kV]
Impulse collector current (with signal)	2,5		3,5	[A]
Impulse collector current (without signal)			4,0	[A]
Heater voltage	8,0		10,0	[V]
Heater current	4,5		5,5	[A]
Preheating time			4	minutes

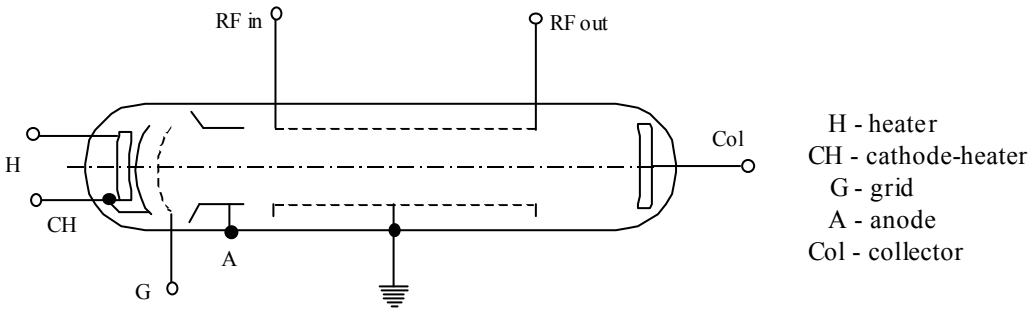

Fig. 1. Scheme connections of electrodes tube LO-111S

IV. Mechanical Description

1.	Dimensions	See Outline Drawing, Fig. 2.
2.	System cooling	Liquid - 1 l/minutes; Air - 100m^3/h
3.	Max coolant inlet temp.	30^oC
4.	Mounting Position	Any
5.	Weight	16 kg (35,5 lbs)

V. Notes

1. The cathode and collector voltage is measured with respect to the ground.
2. The heater and grid voltage is measured with respect to the cathode.
3. Focusing - Periodic Permanent Magnet.
4. Each tube delivers a peak output power in the given frequency range without tuning adjustment.
5. Optimum peak output power and gain may occur after fine tuning of beam voltage and RF input power.
6. Helix over current protection should be provided in the power supply.
7. Environment temperature from 233 K to 343 K.
8. A ceramic-metal construction provides exceptional mechanical strength.

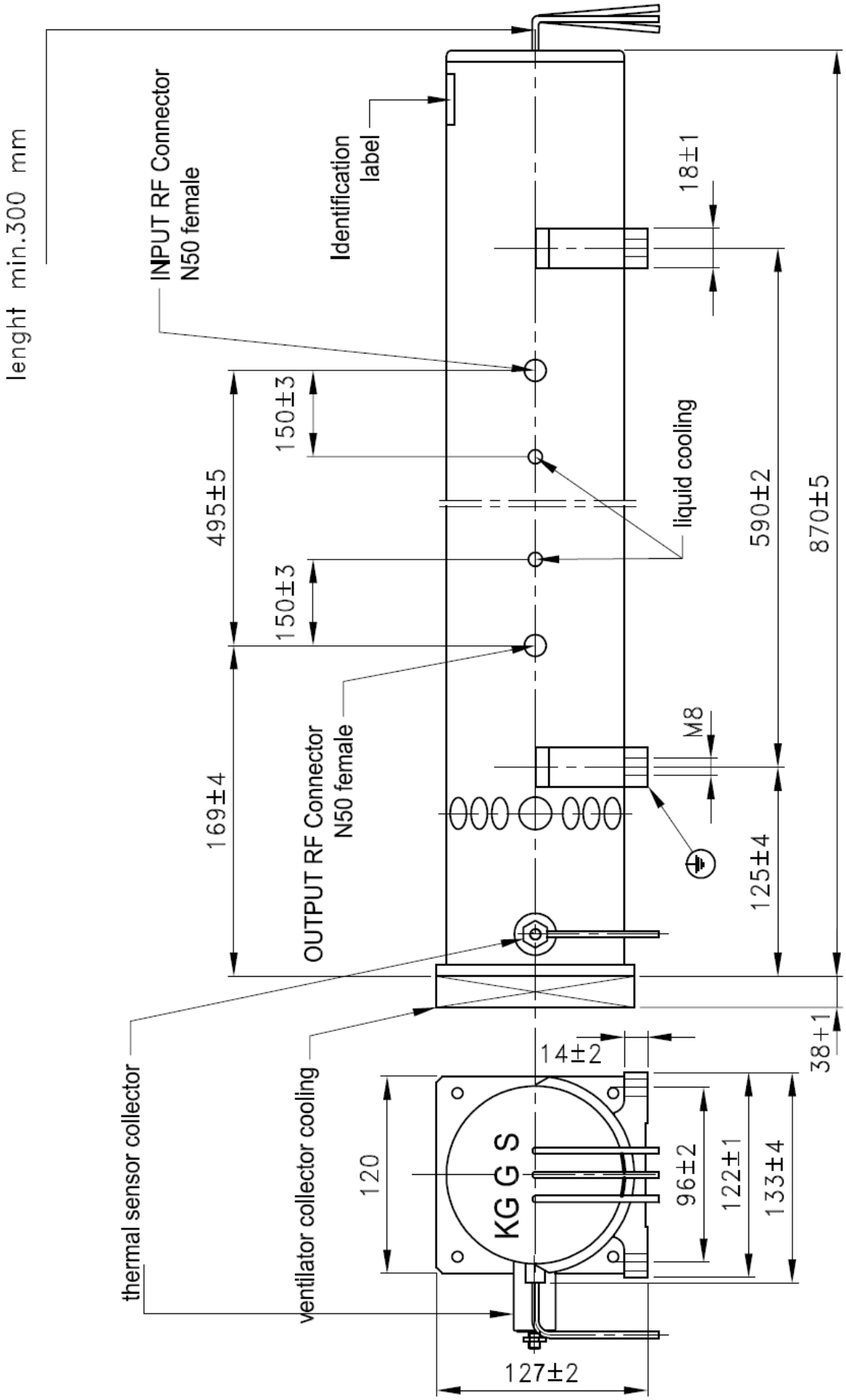

Fig. 2. Dimensions of tube LO-111S