



ELECTRONIC TUBE REFERENCE

TH91

Specialized - Sensor Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

SENSOR

Indirectly heated subminiature vacuum thermocouple for very low-current measurement. It converts electrical heating into a small thermoelectric voltage for precision instrumentation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	SUBMINIATURE	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Sensor

No fixed ratings recorded.

Vacuum thermocouple; heater/thermocouple measuring characteristics retained as parameters.

Indirectly heated vacuum thermocouple; TH91 is covered or explicitly cross-referenced on the TH71/TH73/TH75 family sheet. The supplied Philips source was read for heater or filament data, ratings, characteristics, capacitances, and representative operating conditions.

SOURCE OPERATING CONDITIONS

1999 Philips E-Z

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS E-Z

Section 1 · Sensor

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current range	0-15 mA	—
Approximate square-law proportional range	0-5 mA	—
Heater current at 12 mV output	10 mA	—
Heater resistance	6.8 ohm	—
Thermocouple resistance	6 ohm	—
Response time	10 sec	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum heater current for 1 minute	20 mA	—
Maximum heater-to-thermocouple voltage	100 V	—