

# Coaxial impedance transformer

## Description and purpose

TI1 impedance transformer is designed to match coaxial microwave paths with 50 Ohm and 75 Ohm impedances. Impedance transformer provides measurement of device parameters in 50 Ohm coaxial path, using vector and scalar network analyzers with 75 Ohm measuring ports and vice versa. Impedance transformers operate at frequencies between 0 and 3 GHz and temperatures between -60 °C and +85 °C. Their bodies and nuts are made of stainless steel. Their central conductors are made of tempered beryllium bronze plated with wear-proof gold, which provides at least 5000 connect/disconnect cycles.



## Specifications

Model	Connector	Frequency range, GHz	50 Ohm port VSWR, max.		75 Ohm port VSWR, max.		Insertion loss, dB	P <sub>in</sub> **, W	Fig.
			0 ... 2 GHz	2 ... 3 GHz	0 ... 2 GHz	2 ... 3 GHz			
TI1-04-01R-01.75	Type III (female) – type N 75 ohm (male)	0 ... 3*	1.06	1.13	1.04	1.06	5.6 ± 0.2	2***	1, 3
TI1-04-11R-01.75	Type N (female) – type N 75 ohm (male)								
TI-04-01R.75-01	Type N 75 ohm (female) – type III (male)								2, 4
TI-04-01R.75-11	Type N 75 ohm (female) – type N (male)								

## REMARKS

\* The transformers are operable at frequency up to 4 GHz, but their VSWR over 3 GHz is not regulated.

\*\* Maximum long-term dissipated power of direct current at normal climatic conditions.

\*\*\* The value is given for normal climatic conditions. For increased ambient temperature, reduction of input power is recommended.

## Circuit diagram

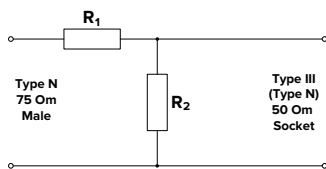


Fig. 1

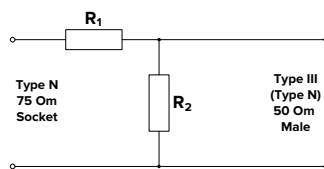


Fig. 2

## Dimensions

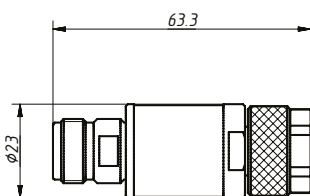


Fig. 3

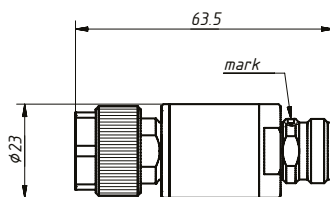


Fig. 4