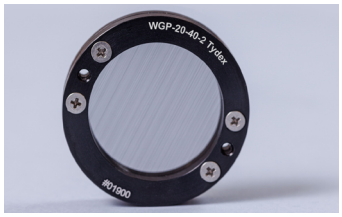
Microwave Wire Grid Polarizers

For microwave range we produce wire grid polarizers intended to polarize radiation from 600 μm to centimeter wavelengths. They are made of 20 μm thick parallel tungsten wires mounted in a holder with no substrate.



Applications:

- Spectroscopy;
- Polarimetry;
- Astronomy;
- Antenna engineering.

Features:

- Can withstand high energies of incident radiation;
- Due to no substrate provide high transmissivity of desired polarization;
- Provide high degree of polarization;
- Made of tungsten wires;
- Mounted in holders (protective rings marked with wire direction).

The advantages of wire grid polarizers over polypropylene grid polarizers:

- Better transmission of desired polarization due to no substrate;
- Can withstand high-intensity radiation.

Specification:

Wavelength range, μm	≥ 600
Wire diameter, μm	20
Distance between wires, μm	40
Holder diameter, mm	≤ 152
Working aperture, mm	≤ 136
Transmission of desired polarization K1, %	> 95
Transmission of non-desired polarization K2, %	< 0,1
Extinction coefficient E=10*Log(K1/K2), dB	> 30

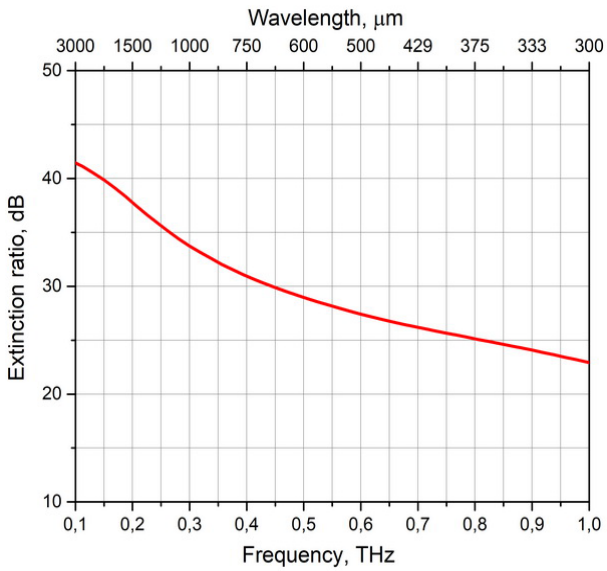


Fig. 1. Extinction coefficient, dB

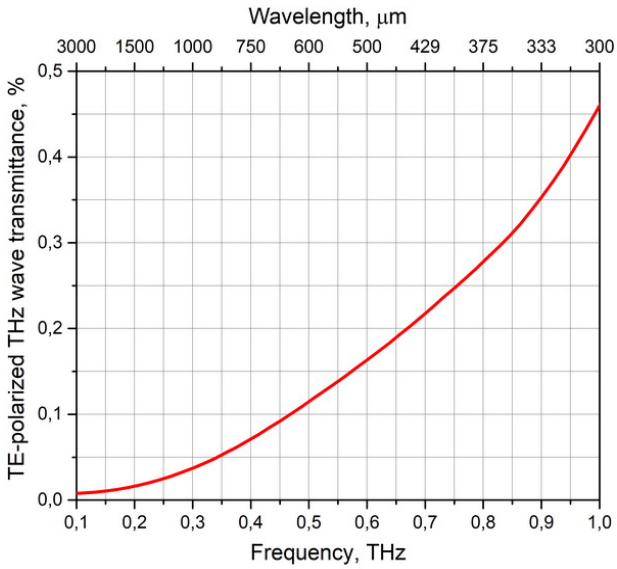


Fig. 2. Transmission of non-desired polarization, %

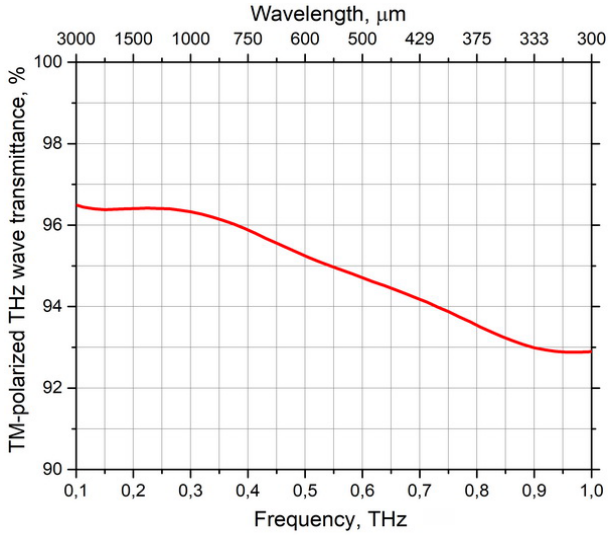


Fig. 3. Transmission of desired polarization, %

As standart, polarizers are supplied in a round (2 - 6 inch diameter) holder. Working aperture is 36 mm for 2-inch and 136 mm for 6-inch polarizer. On customer's request polarizers can be equipped with a rotator.

For price quotation and delivery please send us an e-mail or fill in our web site request form.

16 Domostroitelnaya str.
194292 St. Petersburg, Russia
www.tydex.ru

Phone: 7-812-3318702
Fax: 7-812-3092958
E-mail: optics@tydex.ru

TYDEX®