2.3.02-00 Diffraction of light at a slit and an edge

What you can learn about ...

- ➔ Intensity
- ➔ Fresnel integrals
- ➔ Fraunhofer diffraction

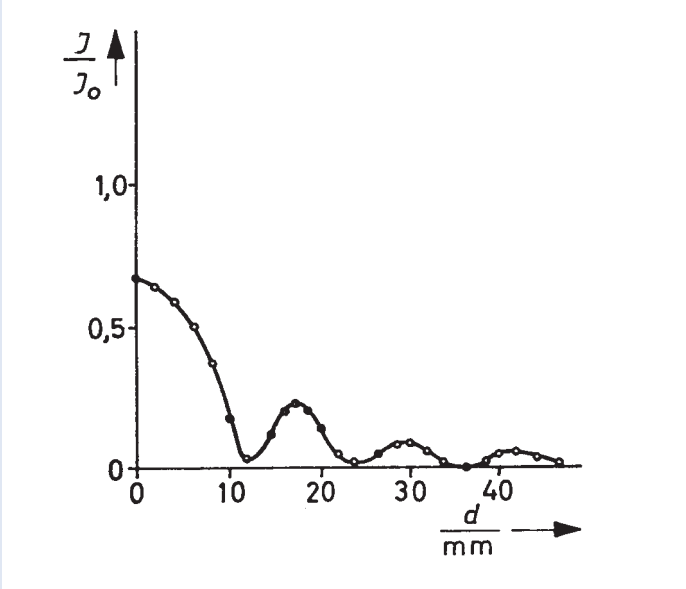
Principle:

Monochromatic light is incident on a slit or an edge. The intensity distribution of the diffraction pattern is determined.

What you need:

Laser, He-Ne 1.0 mW, 230 VAC	08181.93	1
Photoelement for optical base plate	08734.00	1
Lens holder	08012.00	1
Lens, mounted, f = -50 mm	08026.01	1
Slit, adjustable	08049.00	1
Screen, metal, 300 mm x 300 mm	08062.00	1
Barrel base -PASS-	02006.55	4
Meter Scale, l = 1000 x 27 mm	03001.00	1
G-clamp	02014.00	1
Measuring tape, l = 2 m	09936.00	1
Multi-range meter with amplifier	07034.00	1
**Alternative:*		
Universal measuring amplifier	13625.93	1
Digital multimeter 2010	07128.00	1
Connecting cord, l = 75 cm, red	07362.01	1
Connecting cord, l = 75 cm, blue	07362.04	1

Complete Equipment Set, Manual on CD-ROM included
Diffraction of light at a slit and an edge P2230200



Intensity distribution on diffraction at the slit, as a function of the position along a straight line parallel to the plane of the slit, standardised on the intensity without the slit.

Tasks:

1. Measurement of the width of a given slit.
2. Measurement of the intensity distribution of the diffraction pattern of the slit and
3. of the edge.

You can find more advanced optics in this brochure Order No. 00117.02 (see page 121)