

The invention relates to the measurement technology, in particular to devices for measurement by an optical method and may be used for measuring the diameter of the core and the thickness of the microwire glass cladding.

The device for measuring the diameter of the core and the thickness of the microwire glass cladding comprises a carcass, on which are fixed two collimating units for measuring the diameter of the core for the visible light (2 and 3) and two collimating units for measuring the thickness of the cladding for the ultraviolet light (4 and 5), the units being made in the form of tubular bodies, placed in parallel. On the middle part of the bodies of the collimating units (2, 3, 4, 5) is made a cutout for positioning therein the microwire (1). In the body of each of the collimating units (2, 3, 4, 5) is mounted a light emitter (9), an optical chopper (10) of rectangular or oval shape to define the shape of the light beam, a photodetector (13), a collimating lens (11) for the light emitter (9) and a collimating lens (12) for the photodetector (13). The outputs of the photodetectors (13) of the collimating units for the visible light (2 and 3) and of the collimating units for the ultraviolet light (4 and 5) are connected to the inputs of the differential gain units (6) and (7) respectively, the outputs of which are connected to the input of a calculation unit (8) for processing the measurement data.

Claims: 1

Fig.: 2

