

Organization	Technical University of Moldova
Patent / patent application title	DEVICE FOR MEASUREMENT OF THE MICROWIRE CORE DIAMETER AND THE GLASS COATING THICKNESS BY USING THE OPTICAL TRANSPARENCY PHENOMENA.
Authors	DOROGAN VALERIAN; ZAPOROJAN SERGIU; MUNTEANU EUGENIU; LARIN VLADIMIR; PAVEL VICTOR.
Patent / patent application N°	MD 941 Z/ 2016.03.31, MD 942 Z. / 2016.03.31
Description	<p>The device include using two collimating sets with visible light and two collimating sets with of ultraviolet light, which include: light-emitting lens, collimating lens, optical shutters of rectangular or oval shapes, focusing lens for the light photo-detectors. The measuring method is based on light flows attenuation by microwire in the way as there are generated photocurrents ofvarious values, depending on the microwire coat thickness and core diameter. The device include blocks of differential amplification which amplifies and filter the photocurrents, creates electrical signals with various voltage values, are converted into digital values used by the calculation unit for calculation of the core diameter and the microwire coat thickness.</p> <p>Dispozitivul constă în utilizarea a două ansambluri de colimare pentru lumină vizibilă și două ansambluri de colimare pentru lumină ultravioletă, care includ: emițătoare de lumină, lentile colimatoare, obturatoare optice de formă dreptunghiulară sau ovală, lentile de focalizare a luminii pe foto-detector.</p>
Domain	Electricity and electronics.