This invention is a optical beam intensity control system with a piezoelectric actuator, with advanced control accuracy, dynamic characteristics and extended functionality. The system consists of a piezo actuator (3) rotating a light intensity changing element (5), a light intensity sensor (25) and a controller-generator (10). Beam guiding mirrors (2) and lenses (21) can also be used. The piezoelectric actuator (3) is the symmetrical bimorph type and consists of two thin-walled piezoelectric rings (11) glued concentrically to a wider elastic thin-walled ring-shaped disk (7) with an inner surface perforated with elongated holes (8) where the holes directed at an acute angle to the surface of the cylinder (6). A rotor (4) with the light intensity changing element (5) is resiliently pressed against the outer surface of the cylinder (6). The piezoelectric drive (3) rotates the light intensity changing element (5), deforming the disc (7) in the radial direction. The functionality of the actuator (3) is extended by the possibility of adjusting the beam flux density if an optical lens (21) is attached to the outer part of the disc (7) so that its optical axis coincides with the axis of symmetry of the disc (7). The piezoelectric drive (3) is able to move together with the lens (21) along the optical axis when symmetrical bending deformations are created in the disk (7) along the optical axis (24).