

A fast-acting valve for pulse gas intake can be used for obtaining beams of accelerated particles, in particular molecular beams, and is intended for obtaining gas targets and jets in vacuum, and gas intake to pulse ion sources. The fast-acting pulse valve has a body with excitation coil, fitting for gas intake, iron core, back spring and flange that is vacuum-tightly connected to the body of the valve. There additionally is a case that is made of magnetoconductive material, pressing screw installed between the core and the nozzle, pressing nut for excitation coil on fitting for gas intake, at that the fitting for gas intake is made of non-magnetic material and is vacuum-tightly connected to the inner part of the body made of non-magnetic material, back spring is made as reed one and is installed between the end of the core and pressing screw end of which is installed over the nozzle and has a cavity with seal, and nozzle and excitation coil can be made removable. Use of the invention proposed makes it possible to increase operation speed and effectiveness of operation of the device, to increase time range of gas pulses obtained, to decrease power consumption, to simplify operational service.