

The present invention can be used in control systems of ballistic rockets and spacecrafts. The proposed method for measuring inertial or gravitational acceleration acting on a ballistic rocket consists in sensing the linear acceleration by two accelerometers that are arranged along the same sensitivity axis. The output signals of both the accelerometers, which are proportional to the displacements of the sensitive elements of the corresponding accelerometers, are added, and as the result, the signal is generated that is proportional to the sum of the displacements of the sensitive elements of the accelerometers. Additionally, the output signals of both the accelerometers are subtracted, and as the result, the signal is generated that is proportional to the difference of the displacements of the sensitive elements of the accelerometers. So the measuring circuit is created that consists of two parametrically dependant measuring channels. For summing and subtracting the output signals of the accelerometers, electromechanical devices are used.