Building on earlier work of Birch on forms in many variables, Schmidt has shown that any system of $r$ rational quadratic forms has a non-trivial rational zero, providing that each form in the rational pencil has rank exceeding $2r^2 + 3r$, and providing that there are non-singular real and $p$-adic zeros. One of the main ingredients in his work is a form of Weyl’s inequality from Birch’s paper, which we can use more efficiently for systems of forms. This way we are able to replace the bound $2r^2 + 3r$ to $2r^2 + 2r$. In particular, for $r = 1$ one recovers Minkowski’s classical result on isotropy of indefinite rational quadratic forms in at least five variables. (Received September 21, 2010)