Symmetric spaces defined over a field $k$ of characteristic not 2 are completely characterized by the $k$-involution of the corresponding reductive group. A first characterization of the isomorphism classes of $k$-involutions for reductive algebraic groups defined over a a field $k$ of characteristic not 2 was given by Helminck in 2000 using 3 invariants. Two of these 3 invariants are difficult to classify. In this paper we consider the group $\text{SP}(n, k)$ and give a different and much more detailed characterization of the isomorphism classes of $k$-involutions for this group. For this we first show that each involution of $\text{SP}(n, k)$ is the restriction of an involution of $\text{SL}(n, k)$. Next we determine which involutions of $\text{SL}(2n, k)$ remain involutions when restricted to $\text{SP}(2n, k)$. To complete the classification for a specific base field it remains to determine in how many $\text{SP}(2n, k)$-isomorphy classes one $\text{SP}(2n, k)$-isomorphy class of such a $k$-involution of $\text{SL}(2n, k)$ splits. (Received September 27, 2005)