The KE-Problem: Description of Diagonal Elements

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The authors continue their investigation. An affine f.l.m. $\mathcal{F}_A : \mathcal{K} \to \mathcal{K}$ of the unit operator-valued ball is considered in the case where the fixed point C of the continuation of $\mathcal{F}_A$ to $\overline{\mathcal{K}}$ is either an isometry or a coisometry. For the case in which one of the diagonal elements (for example, A_{11}) of the operator matrix A is identical, the structure of the other diagonal element (A_{22}) is studied completely. It is shown that, in all these reasonings, C cannot be replaced by an arbitrary point of the unit sphere; some special cases in which this is still possible are studied. In conclusion, the KE-property of the mapping $\mathcal{F}_A$ is proved.