$$\begin{array}{c|c} a & b \\ \hline b & -a \end{array} \in {}^2\mathbb{C}_2^{\mathsf{U}} \text{ self-adj symm} \\ a & \in \mathbb{R} \\ b & \in \mathbb{C} \\ a^2 + \overline{b^2} & = 1 \\ \hline a & b & \alpha & \beta \\ \hline b & -a & \beta & -\alpha \end{array}$$