Abstract. A classification of simple weight modules over the Schrödinger algebra is given. The Krull and the global dimensions are found for the centralizer $C_S(H)$ (and some of its prime factor algebras) of the Cartan element $H$ in the universal enveloping algebra $S$ of the Schrödinger (Lie) algebra. The simple $C_S(H)$-modules are classified. The Krull and the global dimensions are found for some (prime) factor algebras of the algebra $S$ (over the centre). It is proved that some (prime) factor algebras of $S$ and $C_S(H)$ are tensor homological/Krull minimal.