Comparison of pre-response potential and instantaneous preceding burst and single spike noise recordings at resting potential. (a) Spike triggered averages (STA) of 857 single spike (black traces) and 134 grey traces) of membrane potential (Vm, left panel), inhibitory conductances (gi, middle panel) and excitatory background conductances (ge, right panel). 50-150 ms before burst responses the potential was hyperpolarized and gi increased compared to control responses, while ge was similar. Several ms before and during the single spike responses gi was strongly decreased and ge increased in comparison to the single spike responses. (b) Quantification and observations as in (a). Averages of STAs were extracted from 0 to -10 ms, -40 to -50 ms, -90 to -100 ms, -190 to -200 ms and 0 to +10 ms for ge and gi. Bars indicate the range across which a difference was detected. Plots point to two mechanisms of bursting during depolarizations due to increased gi preceding the burst compared to the time course of observed ge, bars indicate the range across which a difference was detected. Bars indicate the range across which a difference was detected. Plots point to two mechanisms of bursting during depolarizations due to increased gi preceding the burst.