**Computation of sensory activity**

Activity of muscle spindle group Ia afferents:

where is the firing rate of muscle spindle group Ia afferents (in Hz); is muscle-tendon unit velocity (in mm/s); and are muscle-tendon unit length and optimal muscle-tendon unit length, respectively (in mm); *A* is relative muscle activation (0 ≤ *A* ≤ 1); is the mean firing rate of muscle spindle group Ia afferents over the cycle (in Hz).

Note: During computations of the first term, the absolute velocity values should be raised to power 0.6 (i.e. ) and then the velocity sign should be returned to the result.

Activity of muscle spindle group II afferents:

where is the firing rate of muscle spindle group II afferents (in Hz); is the mean firing rate of muscle spindle group II afferents over the cycle (in Hz).

Activity of Golgi tendon organ group Ib afferents:

where is the firing rate of Golgi tendon organ group Ib afferents (in Hz); is the firing rate of group Ib afferents per unit of normalized muscle force (; and are muscle-tendon unit force and maximum isometric muscle-tendon unit force, respectively (in N).