

## CLAIMS

1. Vehicle seat with passenger detecting system, comprising a plurality of force sensors (11) superficially arranged on at least one substrate (1), supported by a frame (F) of the seat, or being self-bearing by lacking any external frame or support, in reply to the stress of the weight of the person occupying the seat and the induced loads when driving, a wiring (12) electrically connected to each of said plurality of force sensors (11), and at least one junction box (2), the wiring (12) electrically connected to said at least one junction box (2), a common wiring (21) electrically connected to said at least one junction box (2), the common wiring (21) adapted to be connected to a controller of a vehicle seat with passenger detecting system characterized in that it comprises a plurality of rigid supporting portions (4), each rigid portion of said plurality of rigid supporting portions (4) interposed between the plurality of force sensors (11) and at least one padding layer (5).
2. Seat according to the previous claim,

characterized in that the sensors of said plurality of force sensors (11), in reply to the stress of the weight of the person occupying the seat and the loads induced when driving, through a respective rigid portion of said plurality of rigid supporting portions (4), are connected through their respective wiring (12) to a respective junction box (2).

3. Seat according to the previous claim, characterized in that said padding layer (5) is divided into a plurality of independent padding portions, each independent padding portion of said padding layer (5) adapted to cover a respective rigid portion of said plurality of rigid supporting portions (4).

4. Seat according to the previous claim, characterized in that the independent padding portions composing said padding layer (5) are arranged in order to form the complete geometry of a normal seat.

5. Seat according to the previous claim, characterized in that each sensor of said plurality of force sensors (11) has three output wires for data signals, supply, earth, connected to the junction box (2), obtaining an analogue

signal converted into a load value.

6. Seat according to the previous claim,  
characterized in that each rigid portion of said  
plurality of rigid supporting portions (4) has  
5 an amount equal to four sensors of said  
plurality of force sensors (11) according to a  
suitable electric connection through the wiring  
(12).

7. Seat according to any one of the previous  
10 claims, characterized in that each rigid portion  
of said plurality of supporting portions (4) is  
made of a rigid material.