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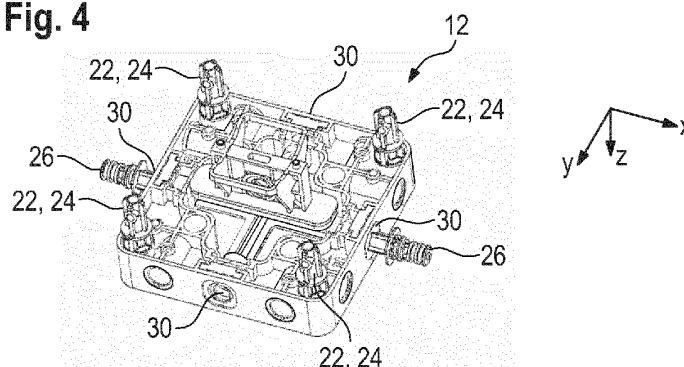
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(54) Title: MODULAR SYSTEM FOR PROVIDING A BIOPROCESS DEVICE ASSEMBLY

Fig. 4



(57) Abstract: A modular system for providing a bioprocess device assembly comprises a rigid skid (10) and a plurality of grid-modules (12). The skid (10) includes a plurality of identical plug-in structures (14) being arranged in a regular two-dimensional grid. The grid arrangement of the plug-in structures (14) defines two-dimensional plug-in fields (20) of an identical standard shape and size. At least some of the grid-modules (12) have a matching counterpart plug-in structure (22) adapted to fix the respective grid-module (12) to any of the plug-in structures (14) of the skid (10). At least some of the grid-modules (12), in an installed state when fixed to a plug-in structure (14) of the skid (10) and/or to a neighboring grid-module (12), have a two-dimensional extension in the plane of the grid that is not greater than the standard size of the plug-in fields (20). At least some of the grid-modules (12) include at least one connection port (30) adapted to receive a rigid universal flow connector (26; 34) of standard shape and size in a standard position and orientation. The universal flow connector (26; 34) establishes a flow connection between two neighboring grid-modules (12). The connection port (30) of each grid-module (12) defines the standard position and orientation of the universal flow connector (26; 34) such that, in its installed state, the grid-module (12) can be connected via the universal flow connector (26; 34) either directly to the connection port (30) or to another universal flow connector (34) received in the connection port (30) of an opposing grid-module (12) fixed to the grid-module (12) and/or to a neighboring plug-in structure (14). At least some of the grid-modules (12) have at least one integrated fluid line (32) through, or into, which a medium to be processed or analyzed can flow. The integrated fluid line (32) is in flow communication with the connection port (30) of the grid-module (12). The plurality of grid-modules (12) includes at least one flow control grid-module having means for actively changing flow properties of the medium, and/or at least one interaction grid-module having means for sensing, detecting or measuring a property of the medium.

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