retentate or feed, as is conventional. Port 17A is in fluid communication with the one or more sub-ports 17C. Port 17A is in fluid ~~commujnication~~ communication with 17C and with the sensor port closest to it. Port 17A also is in fluid communication with the feed port of the cassette, e.g., a PELLICON® cassette. Port 17B is in fluid communication with the one or more sub-ports 17D. Port 17B is only in communication with 17D and the permeate drain port of the cassette. The ports 17A and 17B may be located on opposite sides of the liner in order to provide adequate spacing and avoid interferences with other components. However, where spacing is sufficient or no interference occurs, they may be located on the same side. Each port 17A, 17B is in fluid communication with flow paths or passageways in the liner body that communicate with respective apertures to accommodate flow of feed, retentate or permeate as is conventional, thereby defining multiple flow paths for the filtration stream within the device.

The passageways can be tapered, narrowing as they proceed away from their respective port, to normalize pressure at each of the sub-ports 17C and 17D.

In certain embodiments, one side of one or both of the liners 16, 22 can include a plurality of inter-engaging ribs. The ribs provide added rigidity to the liners, and can be formed in the molding process. The ribs, when present, are positioned

What is claimed is:

1. Filtration apparatus, comprising:

a top plate;

a bottom plate spaced from said top plate;

a filtration member positioned between said top plate and said bottom plate;

at least one disposable liner positioned between said top plate and said filtration member, said liner having a fluid inlet, a fluid outlet, at least one fluid path within said liner, and ~~at least one~~ a sensor port in fluid communication with said fluid path;

a diaphragm sealed to said ~~at least one~~ sensor port; and

a sensor removably connected to said sensor port for sensing pressure in said at least one fluid path through said diaphragm without contacting fluid in said fluid path.

2. The filter assembly of claim 1, wherein said liner further comprises at least a second fluid path, a second sensor port, and a second diaphragm sealed to said second sensor port, said filter assembly further comprising a second sensor removably connected to said second sensor port for sensing pressure in said second fluid path through said second diaphragm without contacting fluid in said second fluid path.

3. The filtration apparatus of claim 1, wherein said diaphragm comprises PVDF or polyethylene.

4. The filtration apparatus of claim 1, wherein said diaphragm is semi-permeable.

~~3~~5. A liner for a filtration apparatus and adapted to seal between a holder plate and a filter element, said liner comprising a flat face adapted to abut said filter element and an opposite face adapted to abut said holder plate, said liner having a fluid inlet, a fluid outlet, at least one fluid path within said liner, and ~~at least one~~ a sensor port in fluid communication with said fluid path;

a diaphragm sealed to said ~~at least one~~ sensor port; and

a sensor removably connected to said sensor port for sensing pressure in said at least one fluid path through said diaphragm without contacting fluid in said fluid path.

~~4~~6. The liner of claim ~~3~~5, further comprising at least a second fluid path, a second sensor port, a second diaphragm sealed to said second sensor port, and a second sensor removably connected to said second sensor port for sensing pressure in said second fluid path through said second diaphragm without contacting fluid in said second fluid path.