



## A new dimension for cell monitoring

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# Improved BioConnect design and connectivity

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OVIZIO's BioConnect is a disposable, single-use fluidic interface between the bioreactor in which cells are cultivated and the iLine F microscope where they are imaged.



The previous version of the BioConnect used to be plugged directly onto the headplate of a benchtop, glass and steel bioreactor using a compression fitting. However, with the emergence of new cultivation methods, the BioConnect has evolved in order to accommodate not only benchtop bioreactors, but any type of cell cultivation vessel.

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Previous version of BioConnect with a non-disposable benchtop vessel.

The updated BioConnect is available with 2 types of endings: C-flex (ID: 0.125, OD: 0.250 inches) and PVC (ID: 0.118, OD: 0.164 inches), for easy and sterile welding. It always comes with a Male Luer lock to fit with any custom, lab-made vessels. All that is required is a deep line, from where the cells can be conveyed to the microscope, and a return line to bring the cells back to the vessel. BioConnects are delivered gamma-sterilized. If needed, BioConnects with C-flex endings can be assembled with the bioreactor in non-sterile conditions and be sterilized with the vessel afterward by autoclave. The PVC version is not autoclavable due to the properties of PVC.



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Picture of a gamma-irradiated BioConnect, with C-flex and dead plugs instead of Male Luer locks.

The pump comes with its own stand, so that the whole assembly, pump and BioConnect can be placed next to the culture vessel with only two lines connected to the vessel.



BioConnect pump and stand.

BioConnect with C-flex ending  
and Male Luer locks plugged into  
the pump.



The following table shows the possible interfaces depending on the bioreactor type.

	Rocking motion bag with C-flex tubing	Xuri (GE Healthcare)	Benchtop bioreactor sterilized by autoclave	Benchtop disposable Bioreactor
C-flex welding	Yes	No	Yes*	Yes
PVC welding	No	Yes	No	Yes**
Male Luer	Yes	Yes	Yes*	Yes

\* *Connection may be possible, depending on the vessel setup. For instance, for a benchtop bioreactor sterilized by autoclave, the user can decide to either add C-flex tubing to his vessel during assembly or Male Luer locks.*

\*\* *Connection depends on the brand of the vessel. Some products may have PVC tubing available for welding.*

BioConnect function is not affected by the size of the vessel, it can be connected to anything from small-scale vessels (200mL) through to large vessels (1000L or larger).

Given the possibility of sterilizing the BioConnect by autoclave, the endings can be modified with different types of connectors to accommodate specific setups/processes. Consequently, a BioConnect can easily be connected to a stainless-steel vessel after *Sterilization-in-Place*.

In conclusion, the BioConnect is a disposable, single use, autoclavable fluidic interface that enables movement of cells from any type of vessel to our iLine F for holographic imaging. It is suitable for all types of bioreactors and provides a sterile, closed-loop system for real-time cell monitoring.



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