



## WHAT

A swivel is a simple way to deliver and sample fluids from awake freely moving animals.

A commutator is used to relay electrical signals between an animal and the data collection device.

The Raturn provides direct connection of multiple sampling lines or cables to an awake, freely moving animal.

## HOW

The swivel has internal seals that maintain the connection from top to bottom.

Commutators have multiple contact points to transfer electrical signal throughout the full range of motion.

Tethered animals activate a sensor that rotates the cage when needed, maintaining direct connection.

## PROS

Relatively low cost, great for single fluid lines, relatively good for two fluid lines.

Great for applications involving only wired leads. Often provided as option from instrument supplier.

Flexible, low-stress system for combining fluid, electrical leads, and optical cables in a single rat or mouse.

## CONS

Cannot combine with electrical leads. Limited number of channels. Must be cleaned. Frequent leaks.

Cannot combine with fluid lines. Typically only transfer specific types of electrical signals. Expensive.

Not necessary for simple infusion studies (single line). Cost is high when used only for this application.

## BEST FOR

Single or dual infusion/sampling Can be used for microdialysis & QFM. Cannot be used with simultaneous electrical lines or cables.

Wired leads for EEG, E-phys, and biosensors. Can usually be combined with bolus dose experiments (no catheter).

This is the most flexible system for any type of study. Combine fluid optic, electrical, and other lines. Also able to add in animal activity monitoring.

## LEARN MORE

SEE BASI'S AVAILABLE SWIVEL SYSTEMS

BASI DOESN'T OFFER COMMUTATORS AT THIS TIME. TRY THE RATURN!

REQUEST A DEMO