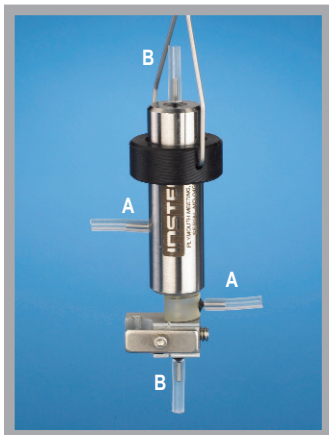


# Instructions for Use: Low-Torque Microdialysis Swivel

375/D/22QM




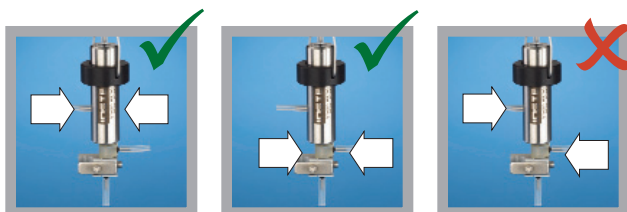
## Intended Use

To prevent tangling of two independent fluid channels during awake-animal microdialysis. Both channels are quartz-lined for low dead volume and to minimize reactivity with neurotransmitters. Can be used with rats or mice. To be used in combination with a [spring tether](#).

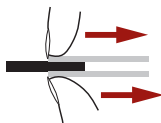
## Warnings

Please take extra care with model 375/D/22QM swivels. Note the warnings below. These swivels are delicate and often cannot be repaired if damaged or clogged.

- Do not autoclave. Sterilize by EtO or cold sterilant.
- Pull water then air through swivel channel immediately every use to prevent clogs.
- Do not force fluid through swivel manually with a syringe.
- To connect to FEP tubing, use silicone tubing connectors (part no. [MC015/10](#)) instead of traditional “blue widgets” to avoid damage to swivel when removing lines. 
- Support swivel directly opposite when installing tubing on side channels to avoid loads that can damage seals.



- Slide tubing off swivel using fingernails; do not pull.
- Do not disassemble.



- If using in a CMA120 balance arm, you must use of the [GIMBAL/CMA](#) adapter to add an additional axis of movement and prevent damage to the swivel.



## Use

1. Sterilize fluid path prior to use with EtO or liquid sterilant.
2. Hold swivel above the cage in a counter-balanced arm. [MCLA](#) recommended for rat microdialysis, [SMCLA](#) for mice. Tighten mount to swivel body, not cap.
3. Attach spring tether to V-block of universal clamp using included 0.050” allen wrench.
4. Attach fluid lines, noting connection of side channel (A) and center channel (B). For microdialysis, artificial CSF is typically infused on the side channel and the sample is removed on the center channel. For more general purpose infusion or sampling, be aware that the inner diameters of both channels are very small – equivalent to 30ga – and therefore rates will be limited.
5. Clean after every use to prevent built up of salt crystals or particulate that can clog the small diameter channels. Use a syringe to suck water or sterilizing solution back through the swivel. Alcohol will not dissolve salts. Never force fluids through a swivel with a syringe or pump as the pressures this generates can damage the seals. Next, dry the insides by using the syringe to pull air through the swivel.

## Troubleshooting and Repair

If a ‘QM swivel is blocked, leaking or does not rotate freely, it must be returned to Instech for repair or, more likely, replacement. In no case will the cost of repair exceed the price of a new swivel. ‘QM swivels cannot be repaired by users. Disassembly can cause irreparable damage.

Before returning any swivels, please request an RA number at: <http://www.instechlabs.com/Support/returns/>

## Specifications

See <http://www.instechlabs.com/downloads/swivels.pdf>.