8. The fluid monitoring assembly of claim 1, wherein the sensor comprises pH sensor.

9. The fluid monitoring assembly of claim 1, wherein the male projection comprises a barbed end.

10. The fluid monitoring assembly of claim 1, further comprising at least one valve mounted on the housing and configured to pinch the conduit.

11. The fluid monitoring assembly of claim 1, wherein the conduit comprises at least one of silicone, thermoplastic elastomer, or thermoplastic rubber.

12. The fluid monitoring assembly of claim 1, wherein the sensor comprises a memory configured to store calibration data therein.

13. A fluid monitoring assembly comprising:

a conduit comprising a wall defining a lumen through which the fluid passes;

a sensor mount integrally formed with the wall of the conduit and extending generally transverse with respect to a longitudinal axis of the conduit, the sensor mount including an aperture extending through the sensor mount and into the lumen of the conduit, the aperture defining an inner surface;

a sensor configured to be removably secured within the sensor mount, the sensor having an elongate body terminating at one end thereof in a sensing portion, the elongate body having a male projection on a portion thereof and configured to rest within the inner recess when secured within the sensor mount;

a housing having first and second portions connected to one another at a hinge, wherein an interior portion of the first and second portions are configured to encapsulate the conduit, at least a portion of the elongate body of the sensor, and the sensor mount; and

one or more pinch valves disposed on the housing and configured to pinch the conduit.

14. The fluid monitoring assembly of claim 13, wherein the sensor comprises a conductivity sensor.