

ABSTRACT

Detection and measurement of transient pressure events in a water (or other fluid) supply system are described herein. A water meter may have upstream and downstream piezo transducers that measure flowrate and overall water consumption. The transducers operate for very short periods (e.g., milliseconds) at intervals (e.g., a second). During the substantial periods during which the piezo transducers are not measuring flowrate, one of the transducers may be used to detect transient pressure events. An output signal of the transducer is compared to a pressure threshold to determine if a transient pressure event has occurred. The comparison may include either a number of times that the threshold was exceeded during a time period, or the time that the threshold was exceeded during the time period. If a transient pressure event was detected, a dedicated transient event sensor can be turned on to better assess the situation.

FIG. 1