

## Partially full pipe flow measurement

There are countless numbers of pipes across water districts and wastewater networks that do not run full all the time. Whilst from a measurement perspective it is preferable to measure flow in a full pipe, from a practical viewpoint it is often either difficult to achieve full flow under all conditions or just not economic to change.

A major problem with measuring flow in partially full pipes is access to the inside of these pipes in which to measure the flow. Traditionally, these flows have gone un-monitored as no monitoring point/s are accessible or, alternatively, costly civil works have been required to make access points.

With the use of a MACE FloPro XCi in conjunction with a MACE insertion velocity sensor and a MACE EchoFlo ultrasonic depth sensor, the monitoring of partially full pipes without the need for costly pipework alterations is a reality.

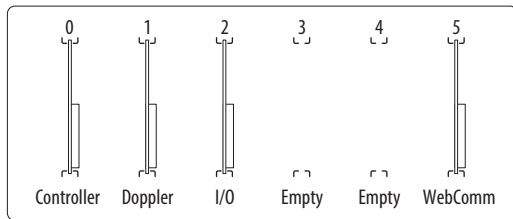
In the example shown here, a FloPro XCi is being used to measure & display velocity/depth and the resultant flow rate, as well as provide a cumulative total. With a MACE WebComm card installed, these readings are available 24/7 on the MACE website, as well as having the ability to be alarmed via SMS/email to any mobile phone.



### FLOPRO XCi



### CARD SLOT CONFIGURATION



### SENSORS/PERIPHERALS



MACE EchoFlo Ultrasonic Depth Sensor



MACE Doppler Ultrasonic Insert Velocity Sensor