

MAXAC

PULSE QUALITY MANAGEMENT SYSTEM

Improves the accuracy at low flows by increasing the pulse output

DESCRIPTION

The MAXAC Pulse Quality Management interface unit is used with Building Management Systems or Automated Reading units.

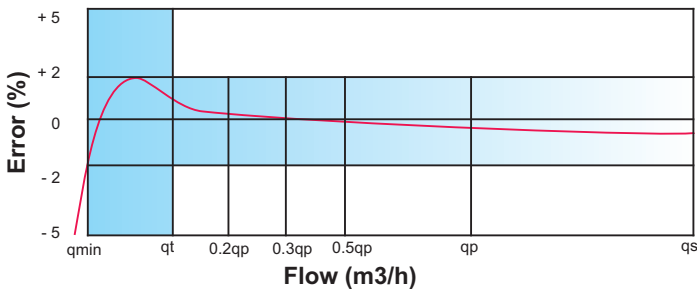
The MAXAC maximises accuracy and resolution of Water Flow Meters at lower flow levels. The MAXAC is used in conjunction with a High Pulsed output flow meter, in the commercial sector.



KEY FEATURES

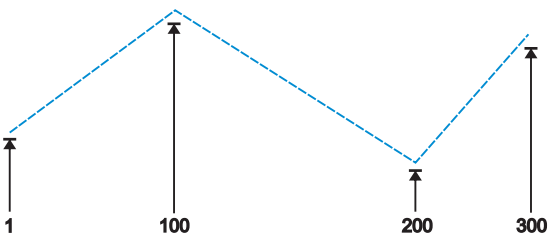
- Improved the reading of both accuracy and resolution of flow meters, especially at lower flows
- It increases the pulse output (consumption monitor) from the meter, so that more accurate readings can be collected
- By increasing the pulsed output, problems such as electrical bounce (vibration) can be difficult to read on building management systems.
- MAXAC removes the bounce and smooths signals into a castellated format

Flow Meter Accuracy Profile

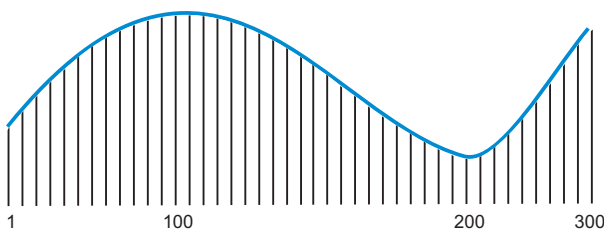


Flow meters which record accuracy at low flows can be improved by increasing the pulsed output, ie. reducing the gap between communicated pulsed outputs.

Flow Meter Standard Format Reading



Flow Meter Reading with MAXAC installed



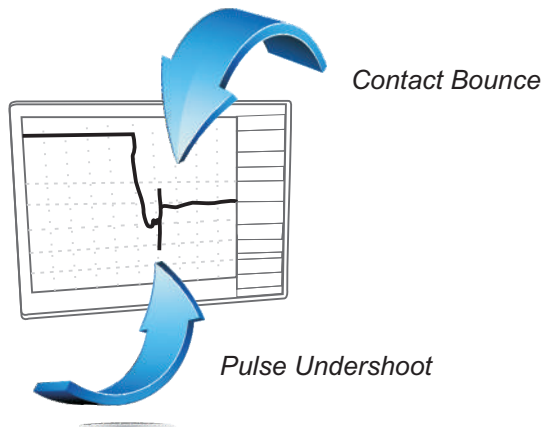
Electrical Bounce

All mechanical switches exhibit some form of 'contact bounce'. As two metallic contacts are pressed together, usually by a lever or spring, there will be a finite amount of time*, before a stable electrical contact is made.

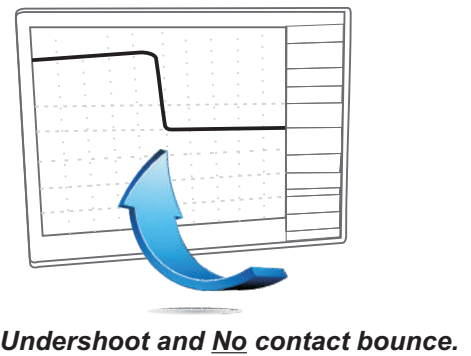
In this period, the switch contacts will rapidly open and close, generating many on - off transitions. This is not seen in electrical circuits such as lamps, doorbells or audio circuits, but can be seen in digital circuitry and can cause disruption.

Switch contacts will open and close rapidly before finally closing. Mis-operation is caused by a fast digital circuit responding to each contact, a switch debouncer circuit eliminates the false impulses, giving a smoother readout. * upto 20 milliseconds

Oscilloscope WITHOUT a MAXAC installed



Oscilloscope WITH a MAXAC installed



Meter Chart Suggested Maximum flow of the MAXAC - 2 pulses per second

Flow Meter Pipe Size	Standard Pulse Rate Litres per pulse	MAXAC Pulse Rate	Minimum Flow of Standard Meter	Maximum Flow of MAXAC
30mm	10	1	12	12
40mm	10	1	20	20
50mm	100	10	30	30
65mm	100	10	50	50
80mm	100	10	80	72
100mm	100	10	120	72
125mm	100	10	200	72
150mm	100	10	300	300
200mm	1000	100	500	500

FREQUENTLY ASKED QUESTIONS

Q: What does MAXAC actually do?

A: It improves the reading accuracy/resolution of Flow meters particularly at lower flows

Q: How does it do this?

A: It increases the pulse output (consumption monitor) from the meter so more accurate readings can be collected

Q: Why do we need the MAXAC interface?

A: Increasing the pulsed output created potential other problems such as Electrical Bounce (vibration) which building management systems etc can find difficult to read. The MAXAC stands for maximum accuracy. It removes the bounce and smooths the signals into a castellated format.

