



## Product Specification

### Response Time for Hiden QIC Inlet

#### Summary

A standard Hiden QIC-20 Gas Analysis system was used to analyse Argon, to obtain data to accurately determine the response time of the QIC inlet / data acquisition system. The results give a response time of 120ms for a QIC-20 system configured with a 1m capillary and 300ms for a QIC system configured with a 2m capillary.

Manufactured in England by:

HIDEN ANALYTICAL LTD  
420 Europa Boulevard, Warrington, WA5 7UN, England  
t: +44 (0) 1925 445225 f: +44 (0) 1925 416518  
e: [info@hiden.co.uk](mailto:info@hiden.co.uk) w: [www.HidenAnalytical.com](http://www.HidenAnalytical.com)

## Introduction

Hidden's Quartz Inlet Capillary (*QIC*) was specifically designed for fast response. It uses a molecular orifice, quartz and platinum wetted surfaces, minimised dead volume and heating control to provide no condensation effects, reduced memory effects and no cold spots; a significant improvement over leak valves or unheated capillaries. The *QIC* inlet is available in two standard lengths, 1 metre and 2 metres.

The data for the 1 metre *QIC* is shown in Figure 1.

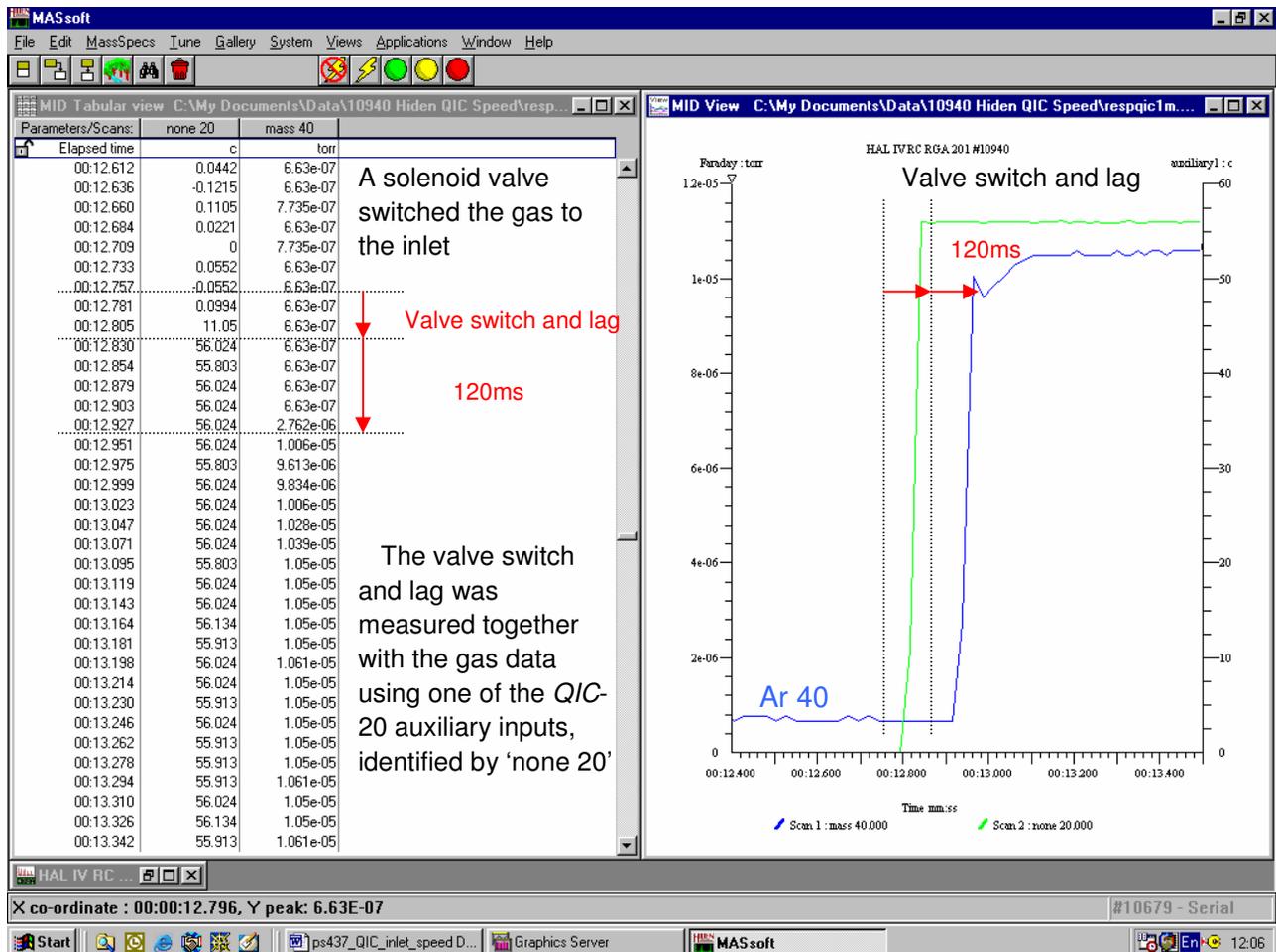


Figure 1: Response speed for 1m length QIC

The time for the gas to travel along the *QIC*, be ionised, travel down the quadrupole mass filter (QMS) and for the data to be acquired is 120ms. Figure 2 shows the data when the longer 2 meter *QIC* is fitted to the same QMS. A similar fast response is seen, 300ms.

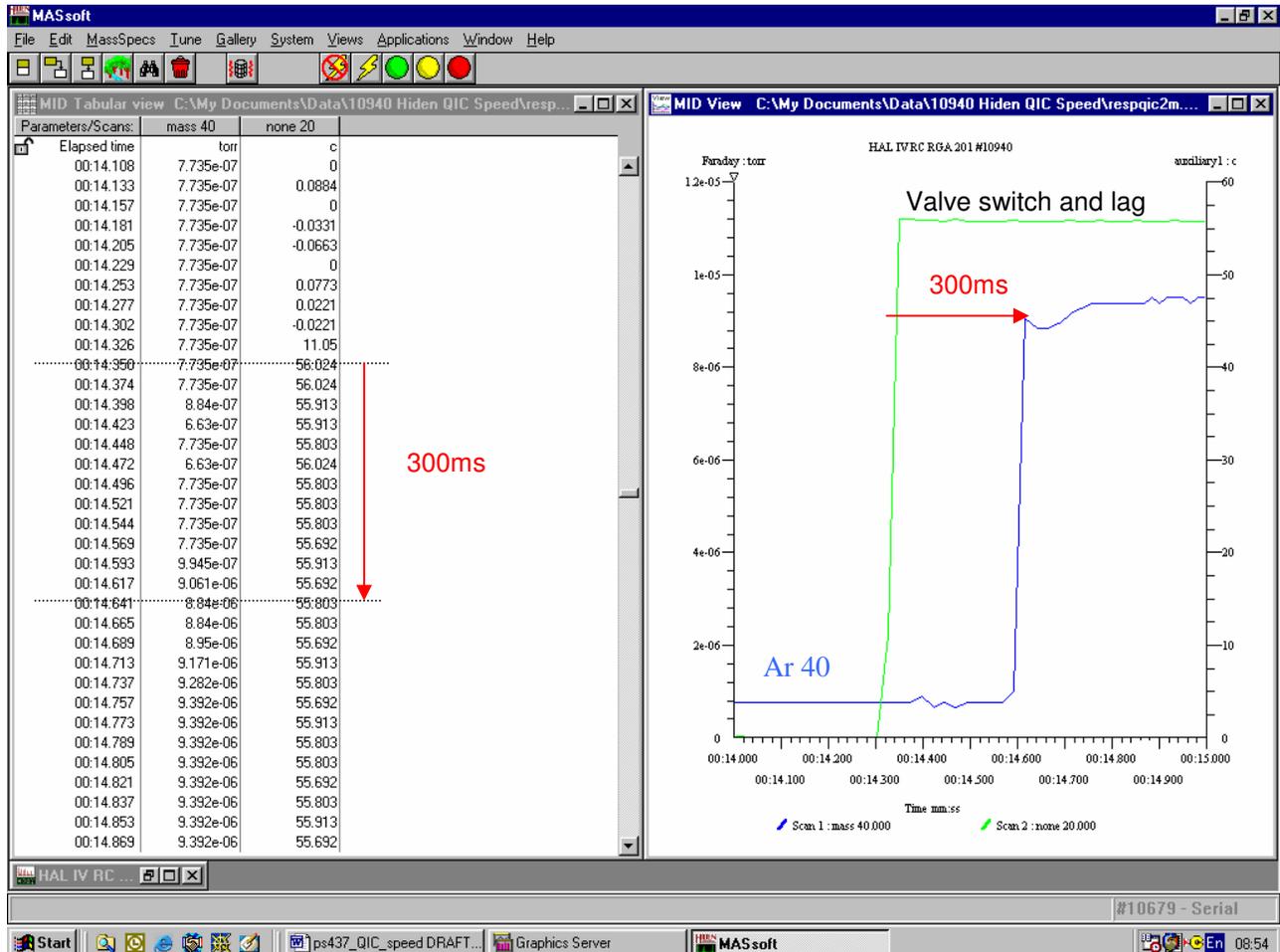


Figure 2: Response speed for 2m length *QIC*

## Conclusion

The *QIC* capillary inlet has extremely fast response, **120ms**. The data is applicable to Hiden *QIC-20* laboratory-style gas analyser and Hiden's research grade HPR-20 *QIC* and *QIC-100* gas analysers.