

18 mm HIGH-TEMPERATURE TIME-OF-FLIGHT DETECTOR

- High Performance, Fast Timing Detectors for TOF Mass Spectrometry
- Bakeable to 300 °C
- Improved Mass Resolution
- Sub-Nanosecond Pulse Widths
- 18 mm Collection Diameter
- Low Profile Conical Anode
- Replaceable MCP Cartridge

The BURLE **Advanced Performance Time-of-Flight Detector** offers previously unobtainable levels of mass resolution, dynamic range, and detection sensitivity in a high temperature tolerant package for Time-of-Flight Mass Spectrometry.

This new TOF detector may be operated at up to 150 °C and vacuum baked up to 300 °C. This allows rapid chamber degassing and ultra quiet instrument operation.

BURLE's exclusive small pore (5-micron diameter) MCPs offer one of the highest channel densities of any MCP available. This channel density provides **dynamic range improvements** of ten times that of conventional microchannel plates. The combination of the microchannel plate technology and the low profile, 50 ohm impedance matched anode extends the dynamic range far beyond previously attainable levels.



These MCPs also give the Time-of-Flight detector **superior sensitivity and excellent temporal resolution**. The flat input surface provides uniform ion conversion and the higher aspect ratio of the MCPs provides gains in excess of 5×10^6 .

Installation is a snap with BURLE's replaceable MCP cartridge. Each cartridge includes a Chevron™ set of two Long-Life™ small pore Extended Dynamic Range MCPs, and a high transmission grid mounted in a rugged module. This module can be purchased separately and allows the operator to replace MCPs quickly and easily.

High mass resolution, dynamic range improvements, and superior sensitivity, all from the world's largest supplier of standard, retrofit and custom detectors for mass spectrometry.



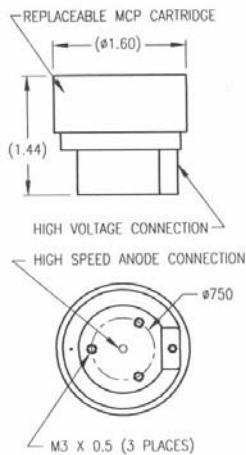
BURLE

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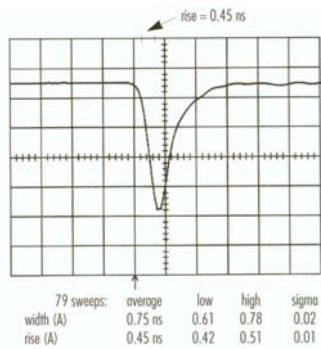
SPECIFICATIONS

Application:	Time-of-Flight Mass Spectrometry
Microchannel Plate:	Long-Life™ Extended Dynamic Range
Gain (Minimum):	5×10^6 at 2400 V
Dark Count (Maximum):	5 cps/cm ² at 2400 V
Resistance (Reference):	66-400 MΩ
Detection Diameter:	18 mm
Operating Temperature Range:	-50° to 150 °C
Bake out temperature (Maximum)	300 °C
Operating Pressure (Maximum)	1.0×10^{-6} torr
Vacuum Flange:	4.5" and 6" conflat available
Electrical Connections:	High Voltage: SHV available with flange Output Signal: BNC available with flange
Maximum DC Offset Voltage On Output Signal:	500 V

DETECTOR CONFIGURATION



TYPICAL PULSE WIDTH MEASUREMENTS



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For additional information in the U.S.A. and Canada, telephone +1-800-648-1800 and for international calls, use +1-508-347-4000, or FAX request to +1-508-347-3849. BURLE Electro-Optics, Inc., Sturbridge Business Park, P.O. Box 1159, Sturbridge, MA 01566-1159 USA