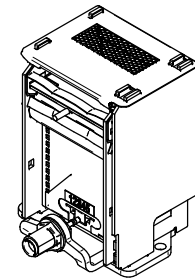
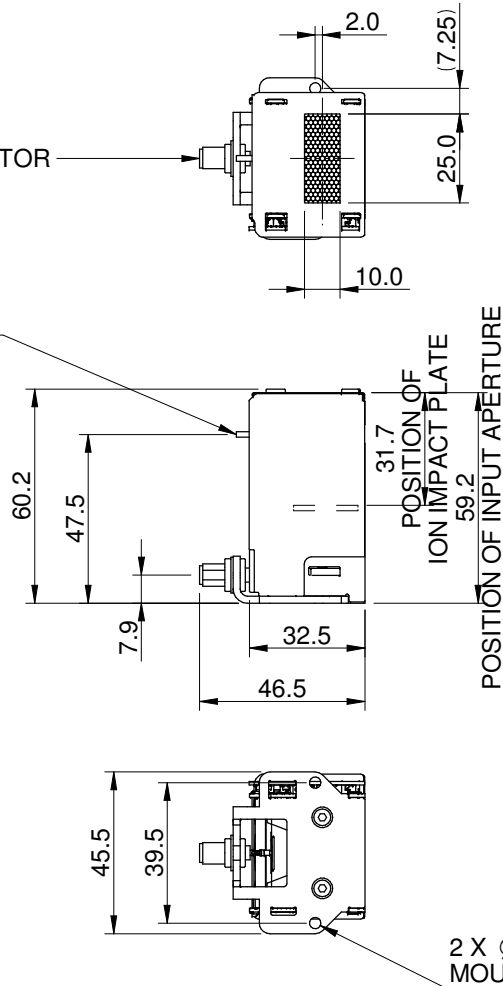


SIGNAL CONNECTOR  
SMA FEMALE


-HV CONNECTION  
Ø1.5mm PIN



NOTE:

1. MULTIPLIERS ARE SHIPPED WITH A COVER OVER THE INPUT APERTURE
2. CAREFULLY REMOVE THE COVER DURING INSTALLATION AND AVOID CONTACT WITH THE DELICATE APERTURE MESH
3. EARTH VIA MOUNTING SURFACE

PRODUCTION APPROVAL				DATE		ENGINEERING APPROVAL				DATE		 8 MARTHA ST CLYDE NSW 2142, AUSTRALIA PH: +61(0)2 8876 0100 ACN NO. 078 955 521 FAX: +61(0)28876 0199 ABN: 35 078 955 521	
REV		DESCRIPTION		ECR #	BY	DATE	TOLERANCE (UNLESS SPECIFIED)		MATERIAL DESCRIPTION		TITLE		
								LINEAR		GENERAL FINISH		MATERIAL TOLERANCE	
								WHOLE MILLIMETRES ±0.5		FREE FROM TOOLING MARKS, BURRS AND SCRATCHES		MACHINED FINISH 1.6/ UNLESS OTHERWISE MENTIONED	
								ONE DECIMAL PLACE ±0.2		SOLID MODEL 4		DRAWN	
								TWO DECIMAL PLACES ±0.1		DATE		SHEET	
4.1		MOUNTING HOLE DETAIL UPDATED		-	PR	10-07-2020	DIAMETER		MACHINED FINISH 1.6/ UNLESS OTHERWISE MENTIONED		PRIOR DRAWING REF.		
4.0		INITIAL RELEASE		-	PR	02-07-2020	WHOLE MILLIMETRES ±0.5		MACHINED FINISH 1.6/ UNLESS OTHERWISE MENTIONED		MSDM599 Rev 3.0		
								ONE DECIMAL PLACE ±0.2		SCALE:		DRAWING No.	
								TWO DECIMAL PLACES ±0.1		DO NOT SCALE		MS148006	
								ANGULAR		ALL DIMENSIONS ARE IN MILLIMETERS		REVISION	
								WHOLE DEGREES ±1°				4.1	
								ONE DECIMAL PLACE ±0.5°					

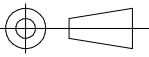
Specifications	
Multiplier Part Number	148006
Number of Dynodes	25
Typical voltage for gain of $10^6$ (new multiplier)	approximately 2500 V
Pulse width for single ion event (FWHM)	< 2.5 ns
Maximum sustained output current for linear operation	30 $\mu$ A
Peak output current for linear operation	10 mA, 500 mV into 50 $\Omega$
Maximum multiplier -HV bias voltage (at end of life)  Note: Operating a new detector at maximum voltage ay result in damage to the detector	4500V
Internal multiplier resistance to ground (nominal)	19.1 M $\Omega$ + zener diode voltage of 1270V
Maximum Dark Counts @ Gain $\sim 10^8$ (measured after 24 hr vacuum soak @ $6 \times 10^{-6}$ Torr)	20 counts per minute
Maximum Dark Counts @ Gain $\sim 10^8$ (measured @ $6 \times 10^{-6}$ Torr immediately after pumpdown)	500 counts per minute
Maximum Dark Current @ Gain $\sim 10^8$ (measured @ $6 \times 10^{-6}$ Torr immediately after pumpdown)	1 pA
Maximum operating pressure	$10^{-4}$ Torr
Long/ short term storage requirements	Protect from dust and humidity
Power supply current required	170 $\mu$ A at 4500V (min)
Ambient temperature range for normal operation	+ 5°C to + 40°C
Maximum storage temperature	70° C
RoHS Compliance	With exemptions 6C-1, 7C-1

PRODUCTION APPROVAL	DATE	ENGINEERING APPROVAL	DATE
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**ETP** ion detect 8 MARTHA ST CLYDE  
NSW 2142, AUSTRALIA  
PH: +61(0)2 8876 0100 ACN NO. 078 955 521  
FAX: +61(0)28876 0199 ABN: 35 078 955 521

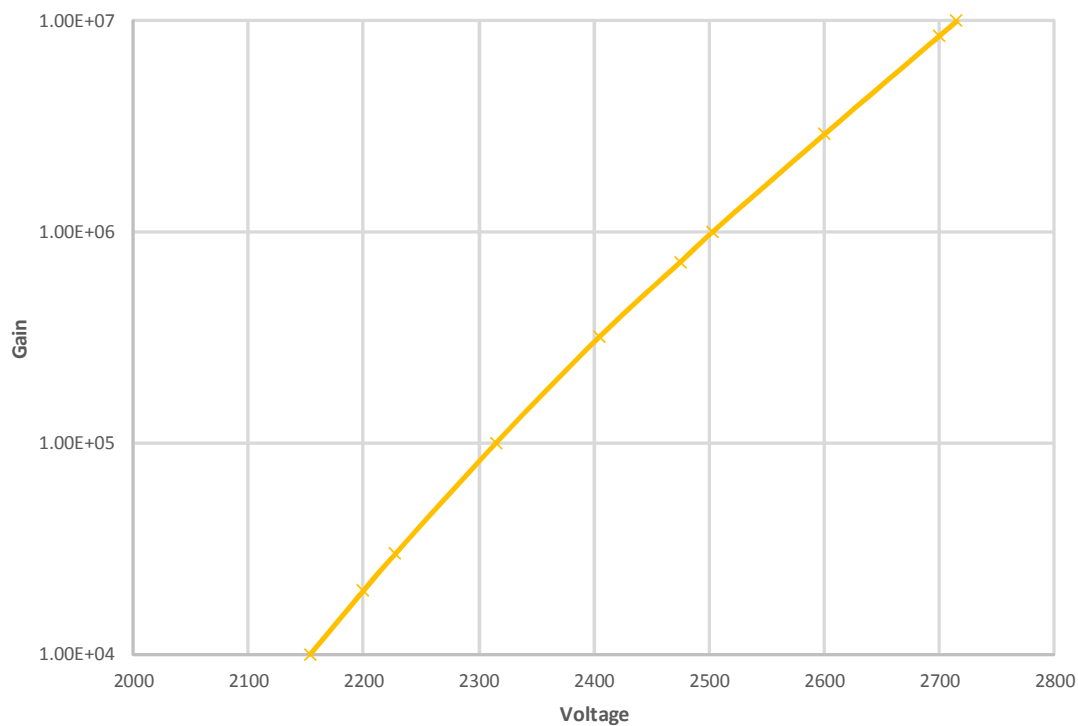
REV	DESCRIPTION	ECR #	BY	DATE	TOLERANCE (UNLESS SPECIFIED)		MATERIAL DESCRIPTION	GENERAL FINISH	SHEET	PRIOR DRAWING REF.	SCALE:	DRAWING No.	REVISION
					LINEAR	ANGULAR							
4.1	MOUNTING HOLE DETAIL UPDATED	-	PR	10-07-2020	WHOLE MILLIMETERS +0.5	ANGULAR +1°	MATERIAL TOLERANCE	FREE FROM TOOLING MARKS, BURRS AND SCRATCHES	4	MSDM599 Rev 3.0	DO NOT SCALE	MS148006	4.1
4.0	INITIAL RELEASE	-	PR	02-07-2020	ONE DECIMAL PLACE +0.2	ANGULAR +0.5°	MATERIAL TOLERANCE	MACHINED FINISH 1.6/ UNLESS OTHERWISE MENTIONED					
					TWO DECIMAL PLACES +0.1	ANGULAR +0.5°	MATERIAL TOLERANCE	GENERAL FINISH					
					DIAMETER	ANGULAR	SOLID MODEL						
					WHOLE MILLIMETRES +0.5	ANGULAR							
					ONE DECIMAL PLACE +0.2	ANGULAR							
					TWO DECIMAL PLACES +0.1	ANGULAR							

**MECHANICAL SPECIFICATION**  
SCALE: DO NOT SCALE  
DRAWING No. **MS148006**  
REVISION **4.1**



DRAWN: PR DATE: 02-07-2020 SHEET: 2 OF 3 PRIOR DRAWING REF.: MSDM599 Rev 3.0  
ALL DIMENSIONS ARE IN MILLIMETERS

### 148006 Typical Gain Curve



PRODUCTION APPROVAL

DATE

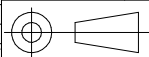
ENGINEERING APPROVAL

DATE

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NSW 2142, AUSTRALIA

PH: +61(0)2 8876 0100 ACN NO. 078 955 521  
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REV	DESCRIPTION	ECR #	BY	DATE	TOLERANCE (UNLESS SPECIFIED)	LINEAR	MATERIAL DESCRIPTION	GENERAL FINISH	TITLE
4.1	MOUNTING HOLE DETAIL UPDATED	-	PR	10-07-2020	WHOLE MILLIMETERS	± 0.5	MATERIAL TOLERANCE	FREE FROM TOOLING MARKS, BURRS AND SCRATCHES	MECHANICAL SPECIFICATION
4.0	INITIAL RELEASE	-	PR	02-07-2020	ONE DECIMAL PLACE	+ 0.2			
					TWO DECIMAL PLACES	+ 0.1			
					DIAMETER		SOLID MODEL	4	
					WHOLE MILLIMETRES	± 0.5		MACHINED FINISH 1.6/ UNLESS OTHERWISE MENTIONED	
					ONE DECIMAL PLACE	+ 0.2			
					TWO DECIMAL PLACES	+ 0.1			
					ANGULAR				
					WHOLE DEGREES	+ 1°			
					ONE DECIMAL PLACE	+ 0.5°			



DRAWN	DATE	SHEET	PRIOR DRAWING REF.
PR	02-07-2020	3 OF 3	MSDM599 Rev 3.0

SCALE:	DRAWING No.	REVISION
DO NOT SCALE	MS148006	4.1

ALL DIMENSIONS ARE IN MILLIMETERS