



The Intelligent Gate Controller (IGC) provides a range of gating facilities including pulse width, pulse delay and an internal clock generator.

FEATURES

- PC Interface and Software
- Calibrated Intensifier Gain
- Variable Delay in 250 ps or 10 ns Steps
- Internal Clock 6 Hz – 1MHz

APPLICATIONS

- High Speed Photography
- Luminescence Studies
- Lidar

Description

The IGC-2 is a universal a.c. mains powered digital control unit designed to apply gating pulses to an imaging or particle detector system where a specific duration of pulse width and delay are required.

The IGC-2 unit incorporates two gating controllers to provide a short and a long gate pulse width generating system. The gating controller selection is automatically performed within the IGC-2 to provide the optimum jitter for the selected and width values. The two gating controllers are:

1. The NSPG gating controller which has a 250 ps incremental pulse width and delay. This controller is capable of pulse widths from 3 ns to 1 μ s and delays from 113 ns to 1 μ s with a jitter of <1 ns.
2. The standard IGC gating controller which has a 10 ns incremental pulse width and delay mechanism. This controller is capable of gating pulse widths from 10 ns to 40 ms and delays from 110 ns to 10 ms with a jitter of ± 5 ns

IGC-2 SPECIFICATIONS – Mechanical				
IGC-2 Size IGC-2 Weight	258 x 265 x 110 mm (Maximum Extents) ~ 2 KG			
Panel Colour Case Colour Bezel Colour	Umbra Grey (RAL 7022) Pebble Grey (RAL 7032) Stone Grey (RAL 7030)			
ELECTRICAL – Mains Supply				
Supply Voltage Fuse Rating Required	Universal 90-260 V 50/60 Hz 110 V/120 V 1 Amp 220 V/240 V 0.5			
OUTPUT PULSE CHARACTERISTICS				
	GM1kV	GM10-50	GM150-20	GM15-4
Output Pulse Characteristics				
A	+ 400V	+50 V/-200 V	+250 V/0 V	+50 V /-200V
B	-400 V	-	+50 V/-200 V	-
C	-	-	0 V/-250 V	-
Dual	± 400 V	-	-	-
Maximum Cathode Pulse Width	100 ns	50 ns	20 ns	3 ns
Minimum Pulse Propagation Delay	60 ns	60 ns	60 ns	60 ns
Maximum Repetition Rate	20 kHz	20 kHz	150 kHz	20 kHz

DETECTOR HIGH VOLTAGE MODULE OPERATION

IGC-2 PART NO.	SYSTEM TYPE	NONE	FLATPACK Internal to IGC-2	WRAP- AROUND Potted with Detector	BPS-1	BPS-2
IGC-2 Basic	User Defined	•				
IGC2-FP-50	MCP		•			
IGC2-FP-50A	MCP		•			
IGC2-FP-50B	MCP		•			
IGC2-FP-20B	MCP		•			
IGC2-FP-4	MCP		•			
IGC2-WA-50	MCP			•		
IGC2-WA-50A	MCP			•		
IGC2-WA-50B	MCP			•		
IGC2-WA-20B	MCP			•		
IGC2-WA-4	MCP			•		
IGC-20A or C	PMT				•	
IGC2-1kVA or B	VCD					•
IGC2-D1kV	VCD					•

DETECTOR GATE MODULE OPERATION

IGC-2 PART NO.	SYSTEM TYPE	NONE	GM1kV Case Module	Dual GM1kV Cased Module	GM10-50 Basic Internal to IGC-2	GM10- 50A Potted with De- tector	GM10- 50B Cased Module	GM150- 20 Internal to IGC-2	GM150- 20 Cased Module	GM15-4 Case Module
IGC-2 Basic	User Defined	•								
IGC2-FP-50	MCP				•					
IGC2-FP-50A	MCP					•				
IGC2-FP-50B	MCP						•			
IGC2-FP-20B	MCP							•		
IGC2-FP-4	MCP									•
IGC2-WA-50	MCP				•					
IGC2-WA-50A	MCP					•				
IGC2-WA-50B	MCP						•			
IGC2-WA-20B	MCP							•		
IGC2-WA-4	MCP									•
IGC-20A or C	PMT								•	
IGC2-1kVA or B	VCD		•							
IGC2-D1kV	VCD			•						

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