

Instructions

IG-5G IONISATION GAUGE HEAD

(D029-31-000)

(D029-32-000)

OPERATING CHARACTERISTICS

PRELIMINARY DATA

Pressure range	10^{-3} - 10^{-10} torr
Sensitivity, for nitrogen	12/torr
Filament rating, for pressure measurement mode	3.2A at 4.2V DC for 1 mA emission
Grid Degas Power, maximum	30W
Grid Degas temperature at 30W	900°C
Filament rating for 30W, i.e. 50 mA at 600V	4.0A at 6.2V DC.

Electrode potentials for typical operating conditions
using the Edwards Ion 7 control units:-

Pressure measurement:

Collector	0V
Filament	100V
Grid	250V

Degassing:

Filament	0V
Grid and collector	600V



Edwards Instruments

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OPERATING CHARACTERISTICS

PRELIMINARY DATA

Typical insulation resistance,
for bulb temperature $\leq 100^{\circ}\text{C}$

Collector to other electrodes 10^{14} ohm

Grid to other electrodes 10^{12} ohm

Maximum continuous operation
pressure 10^{-3} torr

Gauge Head Materials:

grid, wirewound, notched backbone	molybdenum
filaments, two, coiled	tungsten
basepins	Ni K, 1.2 mm O.D.
collector	Tungsten
envelope	Kovar sealing glass

Dimensions:

a) D029-31-000

Envelope, outside diameter	34-36 mm
Envelope length	75mm - 90 mm
Overall length	200 mm minimum
Vacuum Termination	Graded seal of dial 643 glass Terminating in 12 = 13 mm O.D. B37 Pyrex tube

b) D029-32-000

Envelope outside diameter	34-36 mm
Envelope length	75-90 mm
Overall length	150-160 mm
Vacuum Termination	Glass tube, 27-29 mm O.D. to fit Edwards 1" coupling.

Base Connections:

Clockwise from glass pip,	1. Filament 1
external view	2. Grid
	3. Filament 2
	4. Filament 2
	5. Grid
	6. Filament 1

Central pin, Collector

Gauge Head Electrical Connections:

In order to make positive and reliable connection to the electrode leadthrough pins it is recommended that Hypertac connectors should be used. A packet of 10 Hypertac connectors, 1.2 mm I.D., is available as an accessory, ordering number D029-31-012.