

Suitable for Secondary Standard calibration, the NE 2670 Farmer Dosemeter offers excellent stability and easy operation via large, clear menus.

NE 2670

Farmer Dosemeter



Intrinsically stable
Head Amplifier

Repeatability: $\pm 0.05\%$ of
reading

Temp. Stability: <100
ppm per $^{\circ}\text{C}$

Short warm-up and
settling times

Fast Auto-zero

E²PROM data store
- no RAM battery

Complies with IEC-731
& BS EN 61010-1



Precise measurements of radiological beams

The NE 2670's proprietary head amplifier design is unique and intrinsically stable. With advanced digital control, the user is assured of precise measurements, virtually unaffected by time or temperature changes. NE 2670 performs to the standard acceptable for calibration as Secondary Standard dosimeters when used with a suitable chamber such as the 0.6 cm³ NE 2571A. The measurement type can be set to Dose, Dose Rate (hours, minutes or seconds), Charge or Current.

A choice of operational software

The NE 2670 is available in two versions, NE 2670A and NE 2670B. NE 2670A is a

versatile instrument with manual start, stop and reset and the facility for remote computer control via RS232 link. NE 2670B has a higher level of automation, with selectable automatic start/stop and a continuous auto zero feature. Common to both models is the ability to set up and store a library of chambers with their sensitivities, voltages and correction factors, facilitating easy chamber changeover and setup. Another common feature is key-switch selected Measure and Calibrate modes, thereby controlling access to certain setup parameters. Dose units and temperature and pressure units can be selected from a wide range to suit local preferences.

NE 2670A and NE 2670B Specifications

Specification	Description
Measured Quantity:	dose, dose rate, charge or current
Input current ranges:	0 to 500 pA and 0 to 50 nA.
Main Display:	5 digit floating point
Input resolution:	0.001% of range full scale input
Input response time:	<3 s (to within 90% of final reading)
Non-linearity:	within $\pm 0.03\%$ of range full scale input
Repeatability:	$\pm 0.05\%$ of reading
Leakage current:	1×10^{-15} A (typ)
Long term stability:	$\pm 0.2\%$ per year
Temperature stability:	<100 ppm per °C
Units:	Gy, Sv, R, rad, rem, C/kg, A, C prefixed by p, n, μ , m, c, k, M, G, T
Calibration Accuracy:	Charge, $\pm 0.5\%$ of uncorrected indicated value Dose (with 2571A 0.6 cm ³ Chamber), $\pm 0.5\%$ against an NPL Secondary Standard
Autozero:	NE 2670A: 60 s manual Autozero. NE 2670B: continuous Autozero after initial 60 s wait period.
Display:	LCD, 320 x 240 graphics panel
Timer:	range 999999.9 s, resolution 0.1 s, accuracy, 0.01%
Polarizing voltage:	± 30 V to ± 1000 V, resolution ± 0.1 V, Accuracy $\pm 1\%$ of reading, or ± 1 V (whichever is greater)
Temperature stability:	<100 ppm per °C
Trip output:	changeover relay contacts for Start, Stop and Trip Connector, 9-way D socket
Serial link:	RS-232 9-way D socket, 9600 baud, 0 start bits, 8 data bits, 1 stop bit, no parity
Temperature:	10 to 40 °C (50 to 104 °F) operational, -15 to 40 °C (5 to 104 °F) storage
Humidity:	up to 95% non-condensing
Power requirements:	85 to 264 VAC, 47 to 440 Hz
Weight:	6 kg (13 lbs) net
Corrections Ranges:	Temperature: 10 to 40 °C (50 to 104 °F) Pressure: 500 mbar to 1100 mbar Energy Correction Factor: 0.700 to 1.300 User Correction Factor: 0.700 to 1.300.
Electrometer corrections:	Range 1 Correction Factor: 0.5000 to 1.5000 Range 2 Correction Factor: 0.5000 to 1.5000 HV: is controlled by the library value of the selected chamber HV Correction Factor: 0.500 to 1.500.
Chamber sensitivity:	Can be calibrated for volumes ranging from 0.01 cm ³ to 10,000 cm ³

Associated Equipment

Order Code 2671 A: Carrying Case for the 2670, two chambers and cables.

Full range of radiological dosimeters and accessories. Details available on request.

Order Codes

NE 2670A or NE 2670B: respectively define the Dosimeter with TNC chamber connector, complete with AC supply cable and operator's manual.

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