



## Digital Luxmeter



For measurement of illuminance

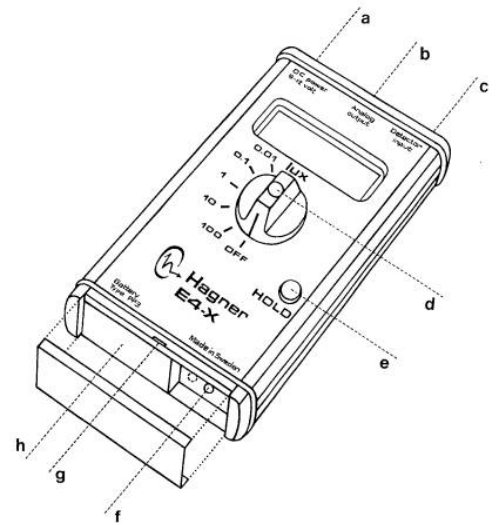
# Hagner Digital Luxmeter, model E4-X

The E4-X Hagner Digital Luxmeter is a precision instrument for measuring illuminance over a range of 0.01 - 200,000 lux, in the field as well as in the laboratory. The detector, connected to the instrument by a 2 metres flexible lead, is fully cosine corrected for the angular incidence of light and carefully filtered to the spectral sensitivity of the human eye in accordance with the CIE standard. The light sensitive device used in the detector is a very stable, long-life silicon photo diode which performs to a high reliability and minimizes the necessity of recalibration. The instrument has built-in temperature compensation. A "hold" function enables the display value to be retained. A DC-input is provided for battery eliminator, and an output for external instruments such as loggers, computers, recorders and oscilloscopes.

The standard connector used for the detector allows all Hagner Special Detectors (Fibre optic, UV-A, UV-B & UV-C, IR, Hemi-cylindrical etc) to be used with the E4-X. The remote detector also makes it possible to use the Light Intensity Adaptor SA-1 (for measurement of light intensity and angular light distribution from lamps etc) and SA-2 (for measurements on image screens, light tables etc) with this instrument.

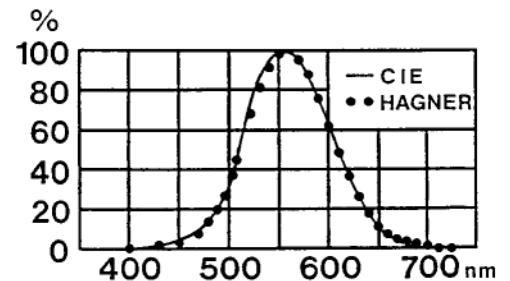
## Outputs and controls

- a. Plug for battery eliminator.
- b. Output for external instruments.
- c. Detector input.
- d. Range switch.
- e. Hold button.
- f. Offset potentiometer
- g. Slot for removing lower end plate.
- h. Battery compartment.

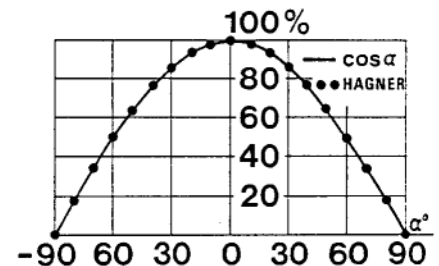


## Instrument data:

Detector	$V_{\lambda}$ -filtered and cosine corrected silicon photo diode.
Measurement range	0.01 – 199,900 lux
Accuracy	Better than +/- 3% (+/- 1 in the last digit on the display)
Display	3 ½ digits
Temperature range	-5°C - +55°C
Output	0 - 2V in steps of 1mV per displayed unit. Load impedance min 1,000 ohm.
Power	1 pc 9V type PP3 or battery eliminator.
Weight	0.42 kg (0.91 with carrying case)
Measurements	150 x 85 x 50mm



The spectral sensitivity of the Hagner luxmeter closely relates to the visibility curve of the CIE standard observer.



The cosine correction compensates for measuring errors owing to oblique incident light.