

EC1-X



The Hagner Digital Luxmeter is a small, handy and extremely easy-to-use instrument for accurate measurement of illuminance over a range of 0.1-200,000 lux. With both automatic zeroing and on/off switch, the only controls needed are a four-position range selection switch and a hold button for retaining the display value.

The Hagner Digital Luxmeter EC1-X

The EC1-X has been designed for measurement of illuminance levels in places where it is important that the operator does not shade the detector. The EC1-X has the detector connected with a 2 meter long cable. An extension cable can also be connected.

Operation

To open the lid, press the forward part lightly downward with your thumb and at the same time pull the latch upwards with the first two fingers of the same hand. The luxmeter comes on when the cover is opened and turns off when it is closed. Move the range switch to the range which will give the greatest accuracy and read the display. The hold function keeps the reading on the display until the hold button is released. Full instructions can be found on the inside of the cover.

The detector can be connected or disconnected without causing any damage to the instrument. But do not pull on the cable to disconnect the detector. Always pull on the connector. Care should be taken to ensure that the cable is not twisted when replacing the cable. It is recommended that the detector is rotated rather than winding the cable around the detector.

Maintenance

The power source is a standard 9 volt battery. To avoid battery leakage only alkaline batteries should be used. When LOBAT appears on the display, it is time to replace the battery. However the luxmeter can be used for approximately 20 hours longer before replacing is necessary.

Change the battery by removing the screw at the front edge of the cover plate, which permits the plate to be lifted up and removed. When replacing it the lower edge of the plate must fit under the two bosses at the lower edge of the case before it can be closed again. The white plastic disc over the detector may be cleaned when necessary with a light damp cloth.

Calibration

The luxmeter is carefully calibrated when delivered. As the light sensitive silicon diodes are extremely stable over long periods of time recalibration every two-three years should, under normal use of the instrument, be sufficient. If however there is any reason to believe that the instrument is out of calibration, it can be returned to your stockist or the manufacturer for earlier control checks.

Please note

The detector is individually calibrated to the respective instrument and can not be interchanged with other detectors. Check carefully that the instrument number in the cover corresponds with the number of the detector.

Instrument data for EC1-X

Detector:	Silicon photodiode V_{λ} -filtered and cosine corrected
Measuring range:	0.1-200,000 lux
Accuracy:	Better than $\pm 3\%$ (± 1 in last digit)
Power supply:	9 volt battery type PP3 alkaline (lifetime approx. 350 hrs)
Temperature drift:	$<10^{\circ}\text{C}$ $+0.35\%$ / $^{\circ}\text{C}$ $>30^{\circ}\text{C}$ -0.35% / $^{\circ}\text{C}$
Dimensions:	135 x 75 x 35 mm
Weight:	0.22 Kg (0.48 Kg with carrying case)

The Hagner Photometer, modell EC1-X, can be made in several variants in the respect of sensitivity and spectral response. For instance: EC1-X UV-A ultra violet 315 - 380 nm. EC1-X IR infra-red 700-1150 nm.

