

**VISATEC®**  
Belichtungsmesser  
Exposure meter  
Flashmètre / posemètre

**FM 2000**

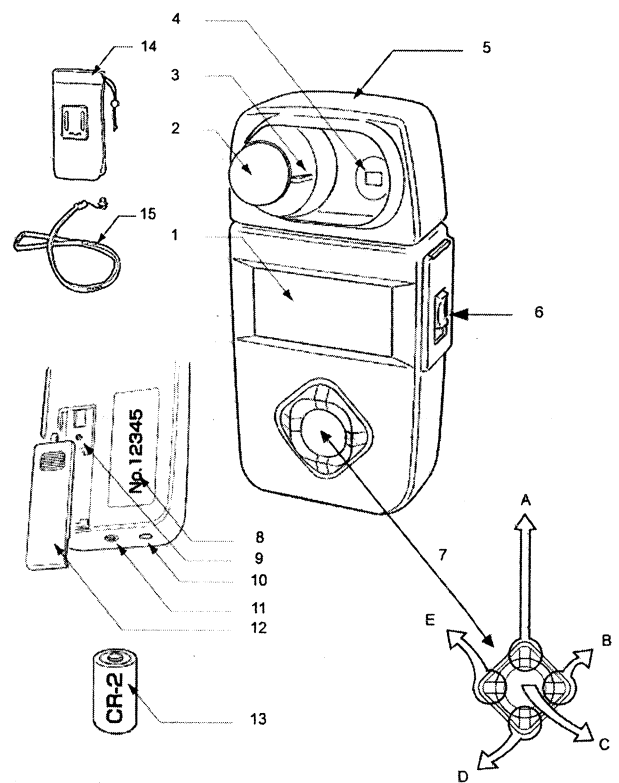
**Bedienungsanleitung**  
**Operating instructions**  
**Mode d'emploi**



1	LCD Display Flüssigkristallanzeige Affichage à cristaux liquides
2	Sphere Diffuser Kugeldiffuser Diffuseur sphérique
3	Select Knob Sphere Diffuser Bedienknopf Kugeldiffuser Bouton de commande du diffuseur sphérique
4	Measuring Sensor Messsensor Capteur
5	Measuring Head Messkopf Tête de mesure
6	Power Switch Ein-/Ausschalter Interrupteur
7	Multi-function button Multifunktions Taste Touche multifonctions
8	Serial Number Seriennummer Numéro de série
9	Adjustment screw Feineinstellschraube Vis de réglage
10	Tripod screw thread Stativgewinde Ecrou de pied
11	Synchro connection Anschluss Synchrokabel Raccord pour le câble synchro
12	Battery compartment Batteriefach Compartiment pour la pile
13	CR-2 Lithium Battery CR-2 Lithium-Batterie Pile lithium CR-2
14	Bag Tasche Etui
15	Neck Strap Nackenriemen Bretelle

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## FM 2000



### 1. Battery

Place a CR-2 lithium battery (3 V) into the battery compartment.

### 2. Switch on / off

To switch on the unit, move the sliding switch to position "I". Shortly after switching on, the battery-state indication appears and immediately afterwards the selected film speed. If the battery indication is flashing, the battery must be replaced.

Automatic switch off:

The meter will switch off automatically, if it is not in use for 10 minutes. To return back to operation, slide the switch down to "off" position (O) and then back to "on" position (I).

### 3. Setting the film speed

To set the film speed, press the multi-function button ISO for approximately 2 s, then select the corresponding value by means of „▲/▼“-buttons.

Return to the former operating mode by pressing the ISO-button again.

If there is a change of film speed after the measurement, the indication adapts to the new input.

### 4. Setting the operating mode

- a) Basic setting (after switching on) of the unit to measure continuous light

Light measuring is effected by pressing the measuring button and determines the f-stop value in 1/10 f-stop steps corresponding to the set shutter time. This can be extended (▼) or reduced (▲) by pressing (several times) the multi-function button. The measured f-stop value adapts to the newly set time.

b) Flash measurement without synchronization

Starting from the basic setting, this operating mode is selected by pressing once the multi-function button (mode). The desired time in a range of 1 to 1/1000 s is set by pressing (several times) the buttons (▲) and (▼). Special shutter times (1/75; 1/80; 1/90; 1/100; 1/200; 1/400) follow the setting for 1/1000 s.

The unit is activated by pressing the measuring button (the flash symbol is blinking) and ready for several minutes to measure a manually released flash.

c) Flash measurement with synchronization

Starting from the basic setting, this operating mode is selected by pressing twice the multi-function button (mode). The desired time in a range of 1 to 1/1000 s is set by pressing (several times) the buttons (▲) and (▼). Special shutter times (1/75; 1/80; 1/90; 1/100; 1/200; 1/400) follow the setting for 1/1000 s.

Synchronization cable or, possibly, infrared transmitter is connected underneath the unit. By pressing the measuring button, the connected flash units are released and, at the same time, light measuring is effected.

d) Mixed light (operating modes b) and c))

If continuous as well as flash light are relevant for the lighting, the unit shows the value to be set, taking all light sources into account.

- Bsp.: Only flash light → f 8.0 (eg. flash light measurement with 1/1000 s)  
 Only ambient light → f 8.0 with 1/30 s  
 Mixed light measuring → f 11.0 with 1/30 s

e) Film mode / Cine

Starting from the basic setting, this operating mode is selected by pressing three times the multi-function button (mode). Setting of the desired frames per second (F/S) in a range from 8 F/S to 128 F/S by pressing (several times) the multi-function button (▲/▼).

Measuring is effected by pressing the measuring button.

f) Basic setting

Pressing once more the multi-function button (mode) leads back to the basic setting.

## 5. Measuring techniques

a) with protruded sphere diffuser

Practically the whole incident light of the subject is measured, including lateral lights and backlights. It is recommended to hold the exposure meter in front of the subject, approximately on the bisector between main light and camera.

b) with retracted sphere diffuser

Strong lateral incident light and backlights do not have any influence on the measurement. It is recommended to take a measurement in front of the subject in the direction of the camera.

c) measuring the subject

Retract the sphere diffuser, for its protection, and slide it aside. Now measuring is effected from the camera in the direction of the subject. Inaccessible subjects can be measured with this method or the contrast range on the subject determined.

The measuring angle covered amounts to 55°.

- The measuring head swivels horizontally about 270°.
- The unit is calibrated ex work. If a fine-adjustment is necessary nevertheless, it can be carried out by +/- 2.1 f-stops with the adjustment screw in the battery compartment.

#### 6. Hints for maintenance

To ensure maximum service life of the unit, store it in a dry and cool place and protect it from dust and humidity.

Keep the sphere diffuser and the measuring sensor clean and free from damage and scratches. For transport or storage in the bag, turn the sphere diffuser down in the retracted position.

Turn the unit off when it is not in use. If it is stored and out of use for a longer time, remove the battery.

Do not try to open or repair the unit. If it does not work correctly or must be repaired, consult the next customer service or the distributor where you bought the unit.

Opening the unit forfeits the guarantee obligations.

#### 7. Technical data

Measuring system	Incident Light: sphere diffuser, retractable Reflected light: angle of incidence 55°
Measuring range ,ambient light' (with 100 ISO) ,flash light' (with 100 ISO)	f: 1.0 ~ f: 90 9/10 (Ev - 1 ~ 19.9) f: 4.0 ~ f: 90 9/10
Measuring sensor	Silicone photo diode
Repeatable accuracy	± 0.1 Ev (≈ 1/10 f-stop value)
Measuring head	Swivelling about 270°
Operating modes: Continuous light:	- exposure value measurement

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Flash light: Cine:	- f-stop measurement (t-priority) with or without synchronization - exposure value measurement - f-stop measurement (frame rate pre selection)
Film speed	3 to 8000 ISO in 1/3 f-stop increments
Shutter speed 'flash light'	1/1000 s ~ 1 s plus 1/75 s; 1/80 s; 1/90 s; 1/100 s; 1/200 s and 1/400 s
Shutter speed 'continuous light'	1/8000 s ~ 30 min plus 1/200 s and 1/400 s
Frame rates	8, 12, 16, 18, 24, 25, 30, 32, 64, 128
Warning signs	E = overexposure E = underexposure
Fine adjustment brightness	Adjustment of exposure values from 2.1 Ev ~ + 2.1 Ev in 0.3 f-stop increments
Power source	CR-2 lithium battery (3 V)
Synchronization	Sync cable
Operating temperature	-10° to ~ 50° celsius
Dimensions (LxHxB)	114 x 60 x 36 mm
Weight	102 g (without battery)
Standard accessories	Neck strap, bag, CR-2 lithium battery

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