

Measuring method:	Reflection spectroscopy
Light source:	2 Xenon - lamps
Power source:	6 NiMH rechargeable batteries, or 6 normal batteries (alkaline), size 'AA', 'Mignon' or 'LR6' or the 'FRIWO FW7556M/15' mains adapter
Operating temperature / humidity range:	+10 to +40°C; relative humidity 10 to 85%, no condensation
Storage temperature / humidity range:	-10 to +60°C, relative humidity 10 to 95%, no condensation
Dimension:	20,8 cm (W) × 11,5 cm (H) × 4,0 cm (D)
Weight:	544 g (with 6 batteries)
Accessories:	Sensor, calibration holder, calibration plug, main adapter (type 'FRIWO FW7556M/15'), USB cable, rechargeable batteries (6 off), Protective caps for fibre-optic light guide S (set: 1 x large + 3 x small)
Wavelength range:	360 - 800 nm

Reflect your health

**Innovative, non-invasive & quantitative:
measurement of the bilirubin value in the blood**

bilispect®



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Application possibilities

A quick, reliable and gentle detection of bilirubin value in newborns can make a decisive contribution to an optimal therapy.

Not only the time-point, on which a therapy should be started, but also the length of time a baby requires treatment with phototherapy can be managed by bilispect.

In opposition to the existing non-invasive bilirubin analyzers bilispect measures the bilirubin content in the blood as well as not the transcutaneous bilirubin value in the skin!

Advantages:

- high accuracy by measuring the bilirubin value directly in the blood
- a reliable decision to start a therapy and continue with treatment
- long-term monitoring during the phototherapy using a button sensor
- appreciate for all newborns
- no infection risk, no stress for infants
- no disposable materials
- minimization of operating costs



Principle of operation

A sensor head placed on the skin projects a white light into the underlying tissue via a waveguide. Some of the projected light is absorbed by the various components of tissue, while some of it is reflected.

Another waveguide transmits the light reflected as a result of the physical conditions back to the device. A spectrometer breaks the light down into its separate wavelengths and an electronic evaluation unit connected to the system analyses it.

The resulting data is then processed using an algorithm developed by MBR and visualised on the display of the device in the form of quantitative values measured for the parameters described above. Individual measurements and continuous measurements can also be carried out online. The device is powered by batteries. A matching intelligent charger is included, so the batteries will not be overloaded. With fully charged batteries, the device can measure for at least five hours in continuous operation.

