



TILO-M20™

07/2026

Technical Data



Front view - illustration similar



Back view - illustration similar

Model	TILO-M20™
Ordernumber	382040
User group	authority only
Microbolometer resolution	640x512px (60Hz)
Temperature resolution	<20mK
Zoom (digital)	0.8x, 1x, 2x, 4x, 8x
Optical magnification	1x
Spectrum / Pixel pitch	7,5 –13,5 µm / 12 µm uncooled microbolometer
FFC (calibration modes)	internal mechanical shutter (can be deactivated) + software calibration (NUC) + manual calibration via front flap
Sunlight sensitivity	harmless
Filter modes	(Boost) White Hot, (Boost) Black Hot, (Boost) Red Hot, (Boost) Cold Red, (Boost) Cold Green, Rainbow, Rainbow HC, Iron Bow, Glow-bow, Hottest
Video output	PAL/NTSC
Display resolution	(Micro-)OLED 873×500 Pixel full color mode
FOV (100m)	horizontal 24° / vertical 19°
Battery 2×CR123 (thermal)	about 1:45 h
Battery 16650 (thermal)	about 8:00 h
Temperature range	operating: – 32°C (–25°F) to +50°C (+122°F) storage: – 40° (–40°F) to +80°C (+176°F)
Water resistance	IP68
Shock resistance	acc. MIL-STD-810G 516.7 I (26 drops out of 1.22m/4ft)
Material	aerospace aluminum; cover eyepiece optics made of sapphire glass
Dimensions (without accessories, e.g. eye cup)	length: 58mm (2.28"); width: 64 mm (2.52"); height: 70 mm (2.76")
Weight (without batteries)	about 152g/5.4oz

TILO-M20™

TILO™ stands for „Thermal Imaging Light Optics“ and „light“ in this case, it has a double meaning. It is not only the world's smallest thermal imaging goggle with a length of 4-6cm and the lightest with 100-150g, but it is also equipped with high-performance LEDs. There is currently no comparable device with such high technical performance in such a small design. The TILO™ was developed from

the beginning as thermal imaging goggles. They can be worn on a helmet as well as on caps and handhelds. Thus both hands remain constantly free. Its performance is comparable to larger hand-held systems.