

Technical Data



The world's first 3D Laserscanner offers a lot of advantages: the ability to swap batteries in explosive environments, a unique 'stand alone' concept to allow an easy operation and quick setup of the instrument, direct control of the scanner via an integrated control panel and display and wireless operation via W-LAN.

Lasersystem			
Laser safety class	3R (ISO EN 60825-1)		
Beam divergence	0.22 mrad		
Beam diameter	3 mm circular (1 m Ddistance)		
Ambiguity interval	79 m		
Min. range	0.4 m		
Resolution range	0.1 mm		
Data aquisition rate	≤ 508,000 pixel/sec		
Linearity error up to 50 m ¹	≤ 1 mm		
Range noise	black 10 %	grey 20 %	white 100 %
Range noise, 10 m ^{1 2}	1.2 mm rms	0.7 mm rms	0.4 mm rms
Range noise, 25 m ^{1 2}	2.6 mm rms	1.5 mm rms	0.7 mm rms
Range noise, 50 m ^{1 2}	6.8 mm rms	3.5 mm rms	1.8 mm rms
Temperature drift (0°C to 40°C)	negligible due to internal reference		

Deflection Unit	
System vertical	rotating mirror
System horizontal	rotating device
Field of view vertical	310°
Field of viewhorizontal	360°
Resolution vertical	0.0018°
Resolution horizontal	0.0018°
Accuracy vertical ¹	0.007° rms
Accuracy horizontal ¹	0.007° rms
Scanning speed	≤ 50 r/s (3,000 r/min) max.

Resolution	Pixel/360° horizontal & vertical	Scanning time for 360°
Resolutions		
„preview“	1,250	25 sec..
„middle“	5,000	1:40 min
„high“	10,000	3:22 min
„super high“	20,000	6:44 min
„ultra high“	40,000	26:40 min
„max. resolutions for selections“	100,000	---



IMAGER 5006EX

General	
Tilt measurement	Resolution: 1/1,000° Accuracy (zero point): 1/500°
Data storage	internal HDD (60 GB)
Integrated operation panel	> Keypad: 6 Buttons ; > Display: 4 Lines
Data & Communication interface	Ethernet /W-LAN

Power supply	
Input voltage	18V DC (scanner)
Power consumption	65 W max.
Battery life time	1.h typ. (changeable battery pack)

Ambient conditions	
Calibrated temperature	0°C to +40°C
Storage temperature	-20°C to +50°C
Illumination	all conditions from complete darkness to bright daylight
Humidity; Dust/air humidity	non-condensing
Protection class	IP 53
Explosion protection	ATEX 94/9/EG, class I and II
Target reflectivity	no retro-reflectors

Dimensions and weights	
Scanner: (w x d x h) weight	250 x 395 x 414 mm 30.6 kg
Bottom of scanner to horizontal axis	343 mm
Tripod: Height Diameter Weight	approx. 800 - 1,400 mm approx. 2,800 mm 12 kg



1. detailed explanation on demand – please contact info@zf-laser.com
2. data acquisition rate: 127,000 pxl/sec

