

# Z+F IMAGER® 5006EX

The world's first 3D Laserscanner with ATEX-Certification offers a lot of advantages: the ability to swap batteries in explosive environments, a stand alone concept to allow safe operation scanner control of the scanner via control panel onboard or remote 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		
Ambiguity interval	79 m		
Min. range	0.4 m		
Resolution range	0.1 mm		
Data acquisition rate	≤ 508,000 pixel/sec		
Linearity error up to 50 m <sup>1</sup>	≤ 1 mm		
Range noise	black 10 %	grey 20 %	white 100 %
Range noise, 10 m <sup>1,2</sup>	1.2 mm rms	0.7 mm rms	0.4 mm rms
Range noise, 25 m <sup>1,2</sup>	2.6 mm rms	1.5 mm rms	0.7 mm rms
Range noise, 50 m <sup>1,2</sup>	6.8 mm rms	3.5 mm rms	1.8 mm rms
Temperature drift	negligible		

Deflection Unit	
System vertical	rotating mirror
System horizontal	rotating device
Field of view vertical	310°
Field of view horizontal	360°
Resolution vertical	0.0018°
Resolution horizontal	0.0018°
Accuracy vertical <sup>1</sup>	0.007° rms
Accuracy horizontal <sup>1</sup>	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	0:25 min.
„middle“	5,000	1:40 min
„high“	10,000	3:22 min
„super high“	20,000	6:44 min
„ultra high“	40,000	13:38 min

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



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General	
Tilt measurement	Resolution: 0.001° Accuracy (zero point): 0.002°
Data storage	60 GB internal HDD
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 (changeable battery pack)

Ambient conditions	
Calibrated temperature	0°C to +40°C
Storage temperature	-20°C to +50°C
Illumination	all conditions
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
Battery Dimensions (w x d x h) Weight	100 x 100 x 203 mm 3.5 kg
Bottom of scanner to horizontal axis	343 mm
Special Tripod: Height Diameter Weight	approx. 800 - 1,400 mm approx. 2,800 mm 12 kg