



# Technical data IMAGER 5006EX



ATEX certification		I M2 Ex d [ib] I II 2G Ex d [ib] II B T4	
Laser measurement system			
Ambiguity interval:		79 m	
Min. range:		0.4 m	
Resolution range:		0.1 mm	
Data acquisition rate:		≤ 508 000 pxl/sec.	
Linearity error up to 50 m: <sup>1</sup>		≤ 1 mm	
Range noise at 10 m: <sup>1 2</sup>			
> Reflectivity 10% (black):		1.2 mm rms	
> Reflectivity 20% (dark grey):		0.7 mm rms	
> Reflectivity 100% (white):		0.4 mm rms	
Range noise at 25 m: <sup>1 2</sup>			
> Reflectivity 10% (black):		2.6 mm rms	
> Reflectivity 20% (dark grey):		1.5 mm rms	
> Reflectivity 100% (white):		0.7 mm rms	
Range noise at 50 m: <sup>1 2 3</sup>			
> Reflectivity 10% (black):		6.8 mm rms	
> Reflectivity 20% (dark grey):		3.5 mm rms	
> Reflectivity 100% (white):		1.8 mm rms	
Range drift over temp. (0°C – 40°C):		negligible due to internal reference	
Optical transceiver			
Laser:		visible	
Beam divergence:		0.22 mrad	
Beam diameter at 1 m distance:		3 mm circular	
Laser safety class:		3R (ISO EN 60825-1)	
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	
Max. scanning speed vertical:		≤ 50 rps	
Typ. scanning speed vertical:		25 rps	
Resolution			
Resolutions:	Pixel / 360° (vertical, horizontal)	Scanning time / 360°	
“preview”:	1 250	25 sec.	
“middle”:	5 000	1 min 40 sec.	
“high”:	10 000	3 min 22 sec.	
“super high”:	20 000	6 min 44 sec.	
“ultra high”:	40 000	26 min 40 sec.	
Max. resolution for selections:	100 000	-	

<sup>1</sup> detailed explanation on demand – please contact [imager5006@zf-laser.com](mailto:imager5006@zf-laser.com)

<sup>2</sup> data acquisition rate: 127 000 pxl/sec., raw data, in High Power Mode

<sup>3</sup> values extrapolated



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	<b>Miscellaneous</b>	
	Tilt measurement: > Resolution: > Accuracy (zero point): <sup>4</sup>	1/1 000° 1/500°
	Data interface: > Interface:	WLAN / Ethernet
	Data storage:	Internal HDD (≥ 60 GB)
	Communication interface: > Interface:	WLAN / Ethernet
	Integrated operation panel: > Keypad: > Display:	6 Buttons 4 Lines
	Power supply: > Input voltage:	18V DC (Scanner)
	Power consumption:	65 W max.
	Battery life time: > Changeable battery pack:	1 h typ.
	Ambient conditions: > Calibrated temperature: > Storage temperature: > Humidity: > Dust/air humidity > Target reflectivity: > Illumination:	0°C - 40°C -20°C - 50°C non-condensing IP 53 no retro-reflectors all conditions from darkness to daylight
	<b>Dimensions and weights</b>	
	Scanner (w x d x h) / weight:	250 mm x 395 mm x 414 mm   30.6 kg
	Bottom of scanner to horizontal axis	343 mm
	Tripod: > Height: > Diameter:	approx. 80 cm –140 cm approx. 285 cm   12 kg

<sup>4)</sup> zero point determination by two layer measurements



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