



PROGRES GRYPHAX[®] SERIES

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CAMERA DATA OVERVIEW
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PROGRES GRYPHAX[®] SERIES

PROGRES GRYPHAX	SUBRA	ARKTUR	NAOS	KAPELLA	RIGEL	PROKYON
Explore the micro universe ...	in Full HD.	with revolutionary 3 & 8 MPix.	with revolutionary 5 & 20 MPix.	– colored in low light & bright field.	– monochrome in low light.	with the flagship.

SYSTEM REQUIREMENTS

Personal computer	Intel i7 (Quad-Core) processor or comparable / 8 GB RAM					
Operating system	WIN 7 / 8 / 10 MAC El Capitan LINUX Ubuntu 14.04 LTS					
Data interface	USB 3.0 integrated, no extra power supply needed					
Monitor resolution	1920 x 1080 or higher	3840 x 2160 pixel or higher	3840 x 2160 pixel or higher	3840 x 2160 pixel or higher	3840 x 2160 pixel or higher	3840 x 2160 pixel or higher
Software (included in the package)	PROGRES GRYPHAX [®] (64 bit operating systems only)					

IMAGE SENSOR

Type	CMOSIS CMOS	SONY back-illuminated CMOS	SONY back-illuminated CMOS	SONY back-illuminated CMOS	SONY back-illuminated CMOS	SONY back-illuminated CMOS
Square	2/3"	2/3"	1"	1/1.2"	1/1.2"	1/1.2"
Utilised sensor diagonal	12.75 mm	10.58 mm	15.58 mm	13.27 mm	13.27 mm	13.27 mm
Pixel dimensions	5.5 x 5.5 µm	2.4 x 2.4 µm	2.4 x 2.4 µm	5.86 x 5.86 µm	5.86 x 5.86 µm	5.86 x 5.86 µm
Color or monochrome	Color	Color	Color	Color	Monochrome	Color (measured)
Transfer method shutter mode	Progressive scan Global shutter	All pixel scan Rolling shutter	All pixel scan Rolling shutter	All pixel scan Global shutter	All pixel scan Global shutter	All pixel scan Global shutter
Full sensor resolution	2048 x 1084 pixel	3840 x 2160 pixel	5400 x 3600 pixel	1920 x 1200 pixel	1920 x 1200 pixel	1920 x 1200 pixel

CAMERA

Camera resolution in LIVE mode	Full HD 1920 x 1080 pixel up to 2048 x 1084 pixel (30 fps)	1920 x 1080 pixel (50 fps) 2560 x 1440 pixel (30 fps) 3840 x 2160 pixel (30 fps)	1800 x 1200 pixel (50 fps) 2700 x 1800 pixel (30 fps)	1920 x 1200 pixel (60 fps)	1920 x 1200 pixel (60 fps)	1920 x 1200 pixel (60 fps)
Camera resolution in RECORD mode	Full HD 1920 x 1080 pixel up to 2048 x 1084 pixel	1920 x 1080 pixel 2560 x 1440 pixel 3840 x 2160 pixel	1800 x 1200 pixel 2700 x 1800 pixel 5400 x 3600 pixel	1920 x 1200 pixel	1920 x 1200 pixel	1920 x 1200 pixel 3840 x 2400 pixel 5760 x 3600 pixel
Camera resolution in VIDEO mode	Full HD 1920 x 1080 pixel (30 fps)	1920 x 1080 pixel up to 50 fps	1800 x 1200 pixel (30 fps)	1920 x 1080 pixel up to 60 fps	1920 x 1080 pixel up to 60 fps	1920 x 1080 pixel up to 60 fps
Exposure time min. - max.	52 µs - 2 s	51 µs - 10 s	51 µs - 10 s	26 µs - 60 s	26 µs - 120 s	26 µs - 60 s
Gain	Max. 8	Max. 10	Max. 10	Max. 30	Max. 60	Max. 30
A/D conversion	12 bit (4096 grey values)	10 bit (1024 grey values)	12 bit (4096 grey values)	12 bit (4096 grey values)	12 bit (4096 grey values)	12 bit (4096 grey values)
Absolute sensitivity threshold*	13.5 e-	7.2 e-	3.8 e-	7.0 e-	7.0 e-	7.0 e-
Quantum Efficiency @ 532 nm (green)*	0.40 QE (λ)	0.64 QE (λ)	0.64 QE (λ)	0.58 QE (λ)	0.64 QE (λ)	0.58 QE (λ)
Dark Noise [DN / e-]*	6.5 DN / 13 e-	0.4 DN / 6 e-	0.9 DN / 3 e-	0.8 DN / 6 e-	0.8 DN / 6 e-	0.8 DN / 6 e-
Saturation capacity*	8000 e-	15.000 e-	15.000 e-	32.000 e-	32.000 e-	32.000 e-
Dynamic range*	56 dB	66 dB	71.8 dB	73.3 dB	73.3 dB	73.3 dB
Filter	IR cut optional clear-glass	IR cut optional clear-glass	IR cut optional clear-glass	IR cut optional clear-glass	Clear-glass optional IR cut	IR cut optional clear-glass
Power consumption	Appr. 3 W	Appr. 3 W	Appr. 3 W	Appr. 4.5 W	Appr. 4.5 W	Appr. 4.5 W
Weight	Appr. 400 g	Appr. 400 g	Appr. 400 g	Appr. 400 g	Appr. 400 g	Appr. 420 g

*based on EMVA 1288 standard compliance guidelines