



# WORKSWELL GIS - 320

## DRONE INSPECTION GAS IMAGING CAMERA

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### Datasheet

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**Release date:** 17<sup>th</sup> of March 2020

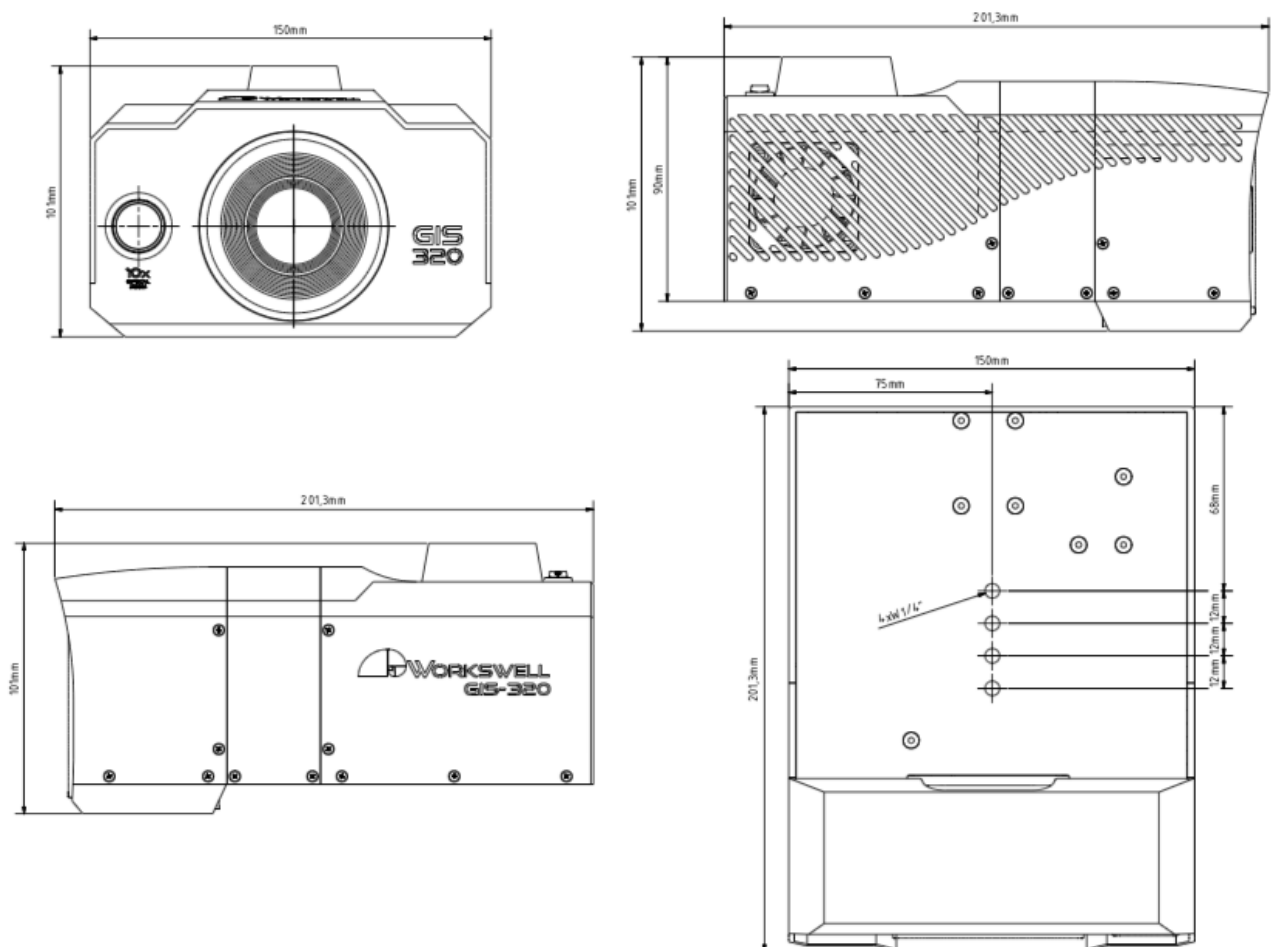
**Revision Number:** 1.3

# Workswell GIS-320 technical specification

Infrared Cooled Camera (MWIR) with operating system (GIS OS) onboard	
Resolution	320 x 240 pixels
Temperature ranges	Calibrated temperature range between -20 °C...+350 °C
Temperature sensitivity	0.015 °C (15 mK)
Frequency	30 Hz
Spectral range	3.2 – 3.4 µm, Cooled InSb FPA detector (MWIR)
Lens	24° x 18° or 14,5° x 10,8°
Focus	Automatic Motorized focusing, minimum focus distance 0.5 m
Zoom	Digital zoom 1 – 4x in infrared image
Special GAS detection mode	Yes, real-time as well as software visualization
Temperature level adjustments	Yes, automatic, manual or moving span
Digital Visual Camera	
Resolution	1 920 x 1 080 pixels (Full HD), 1/3" sensor, Auto white balance, Wide dynamic range, Blacklight compensation, Exposure and Gamma control
Focus	Autofocus with Direct Focus Zoom synchronization
Optical Zoom	10x optical zoom with vibration compensation
View angle	Ultra zoom 6.9° - extra wide 58.2°, focal 33.0 mm – 3.3 mm
Remote control & Video output	
10-pin digital port	S.BUS CAN bus (compatible with DJI M600 and A3 controllers) MavLink External GPS connectivity & External trigger
Ethernet port (RJ-45)	Video streaming and camera control, API included & adjustable
USB 2.0 port	Keyboard connection for in-house or stationary camera control
Video output	Digital HDMI 720p (1280 x 720px), Aspect ratio 16:9, Micro HDMI
Memory and data recording	
Image and video formats	Radiometric JPEG images and Digital camera JPEG Full HD Radiometric TIFF (Pix4D and Agisoft compatible for 3D modeling) Digital camera h.264 encode video HD recording Radiometric full-frame IR recording (raw data recording in 30 Hz)
GPS tagging	MavLink External GPS A3 DJI compatible via CAN bus interface
Memory	Internal high-speed SSD 256GB for image and video recording External slot for Micro SD card & USB 2.0 for USB stick for taking images



Camera functions	
<b>Multi camera modes</b>	Full screen mode, IR only, VIS only, Picture in Picture with optical zoom
<b>Measurement functions</b>	Max temperature, Min temperature, Centre temperature
<b>Temperature range settings</b>	Automatic, manual or span mode (NUC control adjustable)
Following gases are detected	
<b>Gases (400+ gases detectable)</b>	Benzene, Ethanol, Ethyl-benzene, Heptane, Hexane, Isoprene, Methanol, MEK, MIBK, Octane, Pentane, 1-Pentene, Toluene, m-xylene, Butane, Methane, Propane, Ethylene and Propylene.
Software and SDK	
<b>Desktop software</b>	Advanced thermal analysis and reporting SW including in the package
Environmental data, Power supply & dimensions	
<b>Input supply voltage</b>	9 – 36 VDC, Coaxial 2 x 6.4mm, outer shell - GND
<b>Power dissipation (avg.)</b>	18 W
<b>Operating temperature</b>	-15°C to +50°C
<b>Mounting</b>	4 x 1/4-20 UNC thread
<b>Dimensions and weight</b>	201 x 150 x 101 mm, <1.6kg





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