



## Extreme Performance

The Arqus is designed as the industry's highest performing motion capture camera platform, engineered by the team behind the proven Miqus camera platform. The Arqus line of cameras includes the highest resolution camera in the industry as well as the industry's highest full-FOV frame rate camera.

Advanced marker detection algorithms provide exceptional accuracy. The combined effect of high-resolution image sensors, powerful illumination, and sophisticated algorithms means that small markers can be detected from an impressive distance without sacrificing accuracy.

The unique daisy-chaining of Qualisys systems means a lot less cabling to worry about. The protected line of Arqus cameras is built to withstand any type of weather it may encounter. They are designed to be natively waterproof and dustproof, meaning that no compromise is required.

The Arqus is available in four different models: A5, A9, A12, and A26.

## FEATURES

- High-speed motion capture
- Resolution up to 26 MP
- Low latency for real-time applications
- Sun filter<sup>1</sup> and active filtering for outdoor captures
- Water and dust protected housing<sup>1</sup>
- Arqus can detect passive markers as far as 50 m (164ft)<sup>2</sup>
- Passive & active marker support
- Daisy-chaining (no switch required)
- Quick release tripod mount

<sup>1</sup> Optional accessory/feature, not available for all camera models

<sup>2</sup> Measured with A12 standard, maximum exposure and 19 mm markers

## HIGH RESOLUTION-HIGH SPEED-HIGH ACCURACY

The Arqus motion capture camera provides easy to use operation and sports a collection of industry-leading specifications that makes it the highest performing camera in the industry. Performance boils down to resolution, speed and accuracy, all areas where the Arqus excels.

Arqus provides the highest resolution camera in the industry as well as the industry's highest full-FOV frame rate camera. Capture with resolutions ranging from 5MP to 26 MP or with full field-of-view at 1400 fps - surpassing the resolution of any other motion capture camera in the market!

High-resolution image sensors, powerful illumination and sophisticated algorithms renders the Arqus to be the most accurate motion capture camera available, capable of detecting passive markers at up to 50m (164ft)<sup>2</sup>.



*Arqus' display shows camera ID and an LED ring provides clear visual communication on camera status.*

## UP TO 80% LESS CABLING

The unique daisy-chaining of Qualisys camera systems means a lot less cabling to worry about. As an example, a 24-camera Qualisys system covering 30 x 10m (100 x 33ft) will use combined data and power cable, which connects to the next camera in line instead of long cables to connect each camera all the way back to its hub. The end result is 80% less cables!

For portable systems – you will not want anything else. For permanent installation – the cable mess is a thing you won't see in Qualisys labs and studios.



# A camera made for outdoor tracking

Qualisys offers cameras built to withstand any weather it may encounter. Protected Arqus models are natively waterproof and dustproof, able to operate in any environments and conditions that you need it to.

Weather protection, combined with embedded active filtering technology, the Sun Filter, and a high-power strobe, which is 50% more powerful than previous models, allows the camera to distinguish markers from the background even in the brightest of sunshine.

## Protected models include:

- Weatherproof housing
- Industrial connectors
- Extended temperature range
- Sun filters (with standard and narrow lenses)

## All models include:

- Active filtering
- Powerful strobe
- Active marker support



## Motorized lens

Control focus and aperture on the Arqus A12 with motorized lenses. The motorized lens is controlled from QTM, our motion capture software.

## Low latency

The Arqus platform is engineered for minimum latency & exceptional real-time performance, with camera and full software pipeline latency down to 3ms.

## 3D video overlay

Native video camera for the Arqus is the Miquis video, allowing for video overlay which makes analysis results much more intuitive and easy to interpret.

## High-speed mode

Full field-of-view, high-speed mode is available on all camera models providing frame rates up to 1400 fps with full field-of-view.

## External synchronization

Sync with external hardware and any Qualisys camera using the Camera Sync Unit, which supports Trig in, Sync in/out, Video Genlock, PTP, SMPTE and IRIG

## Field of view

Get horizontal field of view of up to 82° with our wide angle lenses or choose from a number of other available field of views for your Arqus selection.

## TECHNICAL SPECIFICATIONS

<b>Camera output modes</b>	Marker coordinates / streaming video for preview
<b>Built-in camera display</b>	Graphical high contrast OLED
<b>Marker support</b>	Passive and active
<b>Camera body</b>	Die-cast aluminum, polycarbonate & thermoplastic polyurethane
<b>External Sync</b>	Camera Sync Unit for triggering, hardware sync, Video Genlock, PTP, SMPTE and IRIG
<b>Strobe</b>	24 High power NIR LEDs @ 850nm
<b>Connection</b>	1-connector daisy-chained Gigabit Ethernet and power
<b>Power</b>	Daisy-chained, 36-58 VDC @ 40W maximum
<b>Operating temperature</b>	Standard housing: 0-35°C, (32-95°F) Protected housing: -15-45°C (5-113°F)
<b>Camera size</b>	132 × 143 × 126 mm (5.2 × 5.6 × 5 in)
<b>Camera weight</b>	1.9 kg (4.2 lbs)
<b>Available housing</b>	Standard / Weatherproof housing (IP67/ NEMA 6)
<b>Security attachment</b>	Kensington Lock
<b>Mounting features</b>	Quick release for Manfrotto & Arca swiss, two ¼" camera mounts



Besides the standard 1/4" tripod mounts, Arqus housing has an integrated quick-release plate

## GOOD THINGS COME IN FOURS

Four models. Four impressive takes on motion capture. The Arqus platform provides superior resolution, maxed out frame rates and anything in-between.



ARQUS		A5	A9	A12	A26
Normal mode (full FOV)	<b>Pixels</b>	5 MP	9 MP	12 MP	26 MP
	<b>Resolution</b>	2560 × 1920	4224 × 2160	4096 × 3072	5120 × 5120
	<b>Frame rate</b>	700 fps	300fps	300 fps	150 fps
	<b>Camera latency</b>	1,4 ms	3,3 ms	3,3 ms	6,7 ms
High-speed mode (full FOV)	<b>Pixels</b>	1 MP	2.5 MP	3 MP	6.5 MP
	<b>Resolution</b>	1280 × 960	2112 × 1080	2048 × 1536	2560 × 2560
	<b>Frame rate</b>	1400 fps	590 fps	1040 fps	290 fps
	<b>Camera latency</b>	0,7 ms	1,7 ms	1 ms	3,4 ms
Field of View (FOV)	<b>Standard</b>	56° × 44°	67° × 37°	54° × 42°	56° × 56°
	<b>Wide angle FOV</b>	77° × 62°	82° × 48°	70° × 56°	77° × 77°
	<b>Narrow angle FOV</b>	29° × 22°	47° × 25°	31° × 24°	29° × 29°
<b>Max frame rate (reduced FOV)</b>		10 000 fps	10 000 fps	10 000 fps	10 000 fps
<b>Measurement distances with 16 mm markers</b>		26m (85ft)	28m (91ft)	40m (130ft)	32m (104ft)
<b>Active filtering (improved outdoor support)</b>		Yes	Yes	Yes	Yes
<b>Motorized lens</b>		No	No	Yes	No
<b>Lens mount</b>		C	C	EF-M	C

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