

VSI AC-21 (automated Minirhizotron camera)



Vienna Scientific Instruments GmbH
Heiligenkreuzer Strasse 466, 2534 Alland, AT
Email: office@vienna-scientific.com

Specifications

Camera	
Length, protruding out of the installed tube [L1]	260mm
Length, of tube [L2]	500-1000mm
Diameter, housing [D1]	110 mm
Weight	Depending on length ca. 5 kg
Power	24V DC
Movement resolution (calculated values)	Rotation: 10,125 arcsec (0,0028125°) Translation: 0,00125mm
Storage	128GB removeable flash drive
Camera resolution	8Mp UHD camera sensor – 3280pixels x 2464pixels
Image size	2cm x 2cm (after distortion correction, maximum size: 4x3cm)
Lighting	2 x 3W LED strip with 330lm at 6500K (cold white)
Power consumption	72W (max rating), <1W (sleep mode)
Feedback	RGB LED for status feedback
Temperature	-10°C to 50°C
Weather protection	Fully sealed enclosure (when installed) with pressure and temperature valve, to prevent condensation
Rainshadow	Groove design on bottom to transport rainwater underneath the system, reduces rainshadow effect
Controller	
Model	Microsoft Surface Go 3 Tablet
RAM	4GB
Storage	64GB SSD
Display	10inch touchscreen
Keyboard	QWERTY keyboard that doubles as cover
Processor	Intel Pentium Gold
Operating system	Windows 11
Software	
User interface	Preinstalled configuration software to set up experiments including repetition intervals
Experimental	Preinstalled automatic root tracing software – Beta Version (Preview on future root tracing and annotation services)
Accessories	
Drill guide	This drill guide makes positioning of guidance hole in tubes easier, this guidance hole is needed to ensure the camera is inserted in the same position every time
Transport tube	Covers the camera carrier and the entire motion system for transport to protect against rain and dust. Comes with carrying handle and shoulder strap.
Tubes	70mm outer diameter acrylic tube with sealed bottom plug that also aligns the entire system in the tube via a bearing for rotational movement. Top cover is also included, to seal installed tubes if not in use.