

VMX-250-CS6 Camera System



The VMX-250-CS6 Camera System complements the RIEGL VMX-250 Mobile Laser Scanning System by supporting up to six individually selectable and fully calibrated digital color cameras.

The recommended industrial camera types allow a flexible configuration complying with the requirements, e.g. collection of high-resolution images of road surfaces, buildings, facades, overhead constructions, industrial sites, mining sites, or just for coloring point clouds.

Further flexibility is offered by choosing orientation and position of each camera on the rigid but lightweight aluminum frame. A sealed protection housing for each camera allows reliable operation even under demanding environmental conditions. Cameras are connected to a common camera control box, which is part of the mounting frame.

The VMX-250-CS6 system is precisely mounted to the VMX-250-RM Roof Mount platform beneath the VMX-250-MH Measuring Head. A single cable connects the digital camera system with the measuring head.

RiACQUIRE manages acquisition of precisely time stamped images by the VMX-250-CS6 in addition to acquisition of laser scanner data. Furthermore it controls the camera's parameters (e.g. camera trigger with fixed time interval or depending on vehicle speed, exposure time, white balance, and more) and enables image monitoring during acquisition.

Intrinsic calibration is offered as a RIEGL factory service. Mounting calibration can be carried out easily by RiPROCESS. The georeferenced metric photos are stored in the RiACQUIRE project structure which can be accessed and processed with RiPROCESS thanks to the seamless processing workflow between the RIEGL software products.

- **support of up to 6 industrial digital cameras with scalable performance**
- **precisely time-stamped images**
- **wide temperature range, sealed camera housings**
- **cameras individually mountable and tiltable on a rigid frame**
- **single cable connection to Measuring Head VMX-250-MH**
- **camera control and data acquisition with RiACQUIRE**



Technical Data VMX-250-CS6

Recommended Camera Types

	1.4 MPx	2.0 MPx	5.0 MPx
Resolution	1360 x 1024	1920 x 1080	2448 x 2050
Max. Frame Rate ¹⁾	20 fps	32 fps	15 fps
Sensor	----- 2/3" color CCD -----		
Shutter	----- global / progressive scan -----		
Pixel Size	6.45 x 6.45 μm^2	5.5 x 5.5 μm^2	3.45 x 3.45 μm^2
Lens Type	----- 5 mm, C-mount -----		
Field of View	----- approx. 80°x65° -----		

1) Max. frame rate of all cameras limited by bandwidth. Up to 4 fps in a typical configuration with four 5Mpx cameras.

Other camera types (e.g. 10MPx, 16MPx) and lenses on request.

Camera System

Protection Class	IP65
Temperature Range	-10°C to +40°C (operation)
Interfaces	single cable with HARTING® connector to VMX-250-MH
Power Consumption	typ. 30 W (max. 130 W) ²⁾
Main Dimensions (L x W x H)	approx. 650 x 890 x 200 mm ²⁾
Weight	approx. 14 kg ^{2) 3)}

2) Typical configuration with 4 cameras

3) The camera system involves changed weight for VMX-250-MH (+1kg) and VMX-250-CU (+6kg) compared to the specifications given in the VMX-250 data sheet.

RIEGL VMX-250 System Components with VMX-250-CS6 Camera System

