

Space-saving stereo image
processing – versatile,
precise and network-ready

VMT™ TwinCam



Detection and inspection based on the principle of dual control

The TwinCam 145-S from VMT is a compact and easily installed stereo vision sensor for detecting and examining defined object characteristics and visually guiding robots precisely.

Two shutter cameras, CMOS sensor, high-power LEDs as the integrated light source – the TwinCam has everything needed for camera-based characteristic inspection or position recognition in 3D. The robust housing for the sensor and protection class IP66 ensure maximum availability in industrial environments.

Precision scanning of object characteristics

When it comes to picking up fine and subtle characteristics or distinctions from taught-in patterns, the TwinCam is the right choice. The measurement precision of the sensor in all three axes is well within the submillimeter range. This ensures superlative accuracy, –especially since the sensor is equipped with integrated LEDs, ensuring even, shadow-free illumination of the image area.

Robots performing this automatic foaming application (“AFA” for short) are guided to the points on the body where the insulating foam is to be applied with maximum precision with the help of measurement data from the TwinCam. The high-resolution measured values from the stereo vision sensor are used as

3D coordinates for making fine corrections to the robot’s motion control in order to position the robot’s application tool on the body plug with precision in the submillimeter range.

Easy integration into static and dynamic applications

The compact housing, barely 45 mm high, allows countless space-saving integration options – in stationary machines as well as in robots or other moving machine structures. The vibration and impact-resistant installation of the optical and electronic components in the sensor as well as the elimination of moving parts, ensure a long, uninterrupted service life.

Communication and power supply even over Ethernet

The TwinCam offers two power supply options: either via 24 VDC connection or via 48 VDC PoE (Power over Ethernet). PoE enables the simultaneous transmission of data and supply voltage through a common line to transmit the measurement data from the stereo vision sensor to an image processing computer for evaluation so that it can be provided to the application from there. At the same time, the switchable outputs also allow direct triggering of other sensors or actuators.

Highlights

- High-resolution, high-precision stereo vision sensor
- Detection, inspection, robot guidance
- Space-saving options for installation in stationary and moving machine structures
- Enables communication and power supply over Ethernet (PoE)

Example in use: Fine adjustment of robot kinematics

Foam-filled car body cavities reduce noise in vehicle interiors.

Technical data



Technical data TwinCam 145-S		
General data	Dimensions (LxWxH) in mm	175 x 170 x 45
Electrical data	Power consumption	14 W (no load)
	Voltage supply	24 V DC bzw. 48 V (PoE)
Sensor	Working distance	145 mm
	Measurement accuracy	0,2 mm in X/Y/Z
Lighting	Spot	High-Power LEDs
	Light color	White
Mechanical data	Degree of protection	IP64
	Mass	1950 g

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VMT Vision Machine Technic Bildverarbeitungssysteme GmbH is your leading automation partner for machine vision turnkey solutions worldwide. VMT® develops and supplies customized machine vision, robot vision, and laser sensor systems for all industrial sectors using our self-developed state-of-the-art hardware and software products. As a professional consultant, VMT® provides objective solutions tailored to individual applications. Our technical services cover the complete life cycle of your machine vision solution, including planning, commissioning, installation, and system integration as well as training, maintenance, and upgrade services. With more than 30 years of experience in industrial machine vision applications, you can be confident that VMT® will provide proven solutions for your operation that nobody else can match.