NexBot Drives 341-006 Thermal Camera

NexBot Robotics

SKU: NXB-SNS-341-006 | Category: Sensors & Vision > Temperature & Environment Sensors > Thermal Cameras

Overview

The NexBot Drives 341-006 is a ruggedized thermal imaging camera designed for seamless integration with industrial robotic systems, providing critical non-contact temperature data for process control and quality assurance. This camera equips automated cells with the ability to see and quantify heat, enabling a wide range of applications from electronics inspection to weld monitoring. Key Features & Benefits: The core of the 341-006 is its high-resolution 640x480 uncooled microbolometer, which delivers detailed thermal images for accurate analysis. This high pixel count is crucial for detecting small thermal anomalies and precisely measuring temperature across a wide surface area. With a thermal sensitivity of <50 mK, the camera can distinguish between very subtle temperature differences, which is essential for identifying early-stage defects or process deviations. The camera operates over a broad temperature range of -20°C to 550°C, making it suitable for both low-temperature material handling and high-temperature manufacturing processes. Its 30 Hz frame rate ensures that thermal data is captured effectively even on moving production lines, preventing motion blur and data loss. Applications in Robotics: In robotic applications, this thermal camera is invaluable for tasks such as monitoring the temperature of injection molded parts upon ejection, verifying the integrity of adhesive curing processes, or performing automated quality inspection on circuit boards to find hot spots indicating potential failures. It can also be used in automated welding cells to monitor bead temperature in real-time, ensuring consistent quality and strength. The rugged, IP67-rated aluminum housing protects the internal components from dust, water, and vibration commonly found in industrial environments. Installation & Integration: The 341-006 camera features a standard mounting interface for easy attachment to robot end-of-arm tooling. Communication is handled via the GigE Vision protocol, providing reliable, high-speed data transfer over standard Ethernet cabling. It operates on a common 24VDC power supply, simplifying integration into existing electrical cabinets.

Technical Specifications

Parameter	Value	Unit
Weight	0.45	kg
Material	Anodized Aluminum 6061-T6	
Voltage	24VDC	
IP Rating	IP67	

Parameter	Value	Unit
Country of Origin	CH	
Protocol	GigE Vision	
Dimensions	95 x 55 x 50 mm	

Safety Notice: This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).