

NexBot Robotics 341-004

Thermal Camera 160x120

Resolution

NexBot
Robotics

SKU: NXB-SNS-341-004 | Category: Sensors & Vision
> Temperature & Environment Sensors > Thermal
Cameras

Overview

The NexBot Robotics 341-004 is a compact, high-performance thermal camera designed for integration with robotic systems for advanced inspection and process monitoring applications. This camera provides real-time, non-contact temperature measurement, enabling automated systems to identify thermal anomalies, verify process parameters, and ensure product quality without physical interaction. Its robust construction and reliable performance make it suitable for demanding industrial environments. The core of the 341-004 is a sensitive microbolometer sensor with a 160x120 pixel resolution, capable of detecting minute temperature differences. This level of detail is critical for applications such as monitoring the thermal profile of welds, inspecting the integrity of seals on packaging, or verifying the temperature of components during electronics assembly. The camera features a wide measurement range of -20°C to 400°C, accommodating a broad spectrum of industrial processes from cold-chain logistics to moderate-heat manufacturing operations. The high thermal sensitivity (NETD <50 mK) ensures that even subtle temperature variations are captured, providing a clear picture of the thermal landscape. Built for industrial reliability, the camera is housed in a durable anodized aluminum body with an IP67 rating, offering complete protection against dust ingress and temporary water immersion. This resilience ensures consistent operation in environments with coolants, washdowns, or airborne particulates. Data communication is handled via the GigE Vision protocol, a standard for high-performance industrial imaging that provides high-speed, reliable data transfer over standard Ethernet cables. This simplifies integration with robot controllers and industrial PCs, allowing for seamless incorporation into existing automation cells. As an end-of-arm-tooling (EOAT) component, its lightweight and compact design minimizes impact on robot payload and maneuverability, making it compatible with a wide range of NexBot Robotics arms. Installation is straightforward, typically involving a standard EOAT mounting flange and connection to the robot's auxiliary power and data ports.

Technical Specifications

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

Parameter	Value	Unit
IP Rating	IP67	
Country of Origin	DE	
Protocol	GigE Vision	
Dimensions	75 x 50 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).