PRESS RELEASE

HySpeedVision: Hybrid connector solution for machine vision systems in automation and robotics

Single-cable technology for data and power – up to 12 Gbps over distances of up to 12 meters

Fridolfing, Germany, May 5, 2026 – Rosenberger is expanding its portfolio with HySpeedVision (HYV), a hybrid connector solution for machine vision systems in automation and robotics. The system combines power and data transmission in a single interface and is available as a PCB connector and as a cable assembly. Typical application areas for the hybrid connection solution include robotics, automation, quality control, safety, and medical technology.

At the heart of this approach is the consistent reduction of interfaces. Instead of separate cables for power supply and data transmission, HySpeedVision enables a single-cable solution. This reduces cabling effort, saves space, simplifies integration, and simultaneously increases system reliability—especially in dynamic applications.

High data rates with minimal latency

HySpeedVision supports serial high-speed protocols such as GMSL™ (versions 1–3), FPD-Link™, APIX®, ASA Motion Link, and USB. Additional protocols can be implemented upon request. With GMSL3, data transfer rates of up to 12 Gbps are achieved over distances of up to 12 m. Unlike Ethernet-based solutions, these technologies utilize deterministic point-to-point connections that ensure minimal latency and high process reliability. These characteristics are particularly relevant for applications in which image data is used directly to control machines and robots.

Optimized for dynamic applications

Mechanical resilience plays a central role, particularly in industrial robotics and moving systems. HySpeedVision is designed for use under demanding conditions and meets requirements such as drag chain compatibility and torsional strength. The system complies with the M12 standard per EN 61076-2-010, achieves IP67 protection, and is specified for a temperature range of –20 °C to +70 °C. The shielded version, with a frequency range from DC to 3.5 GHz, ensures electromagnetic compatibility even in environments with high levels of interference. Four power pins transmit up to 1.5 A at 24 V; two signal pins are provided for data transmission.

Holistic Approach to High-Frequency Design

Rosenberger supports customers as early as the development phase with design-in consulting, PCB footprint calculations, and simulation tools to ensure signal integrity. The goal is to optimize the entire transmission path—from the connector through the cable to the printed circuit board.

Further information at: https://www.rosenberger.com/product/hyspeedvision-hyv/

PRESS RELEASE

Image material: (free of charge when credited as “Image: Rosenberger”):

	With HySpeedVision, Rosenberger offers an all-in-one connection technology specifically developed for machine vision.
	The connectors feature 4 power pins rated at 1.5 A at 24 V and 2 signal pins
	HySpeedVision cable assemblies are specifically designed for dynamic movements and tight bending radii

About Rosenberger

Rosenberger is a globally renowned manufacturer of electronic components and systems, recognized for cutting-edge technologies, engineering excellence, and uncompromising quality. Headquartered in Germany, the Rosenberger Group operates worldwide with numerous sales and production locations, offering a broad range of standardized and customized connectivity solutions in RF, high-voltage, and fiber optic technologies.

Rosenberger ensures the reliable transmission of signals, data, and power in the most demanding application areas. Leading high-tech companies across sectors such as mobile communications and telecommunications, industrial measurement technology, automotive electronics, medical and industrial electronics, data centers, and aerospace rely on Rosenberger products for their precision and outstanding reliability.

The company’s CNC machining division produces precision parts for various industries, including the automotive and commercial vehicle sectors, shipbuilding, and classic mechanical and plant engineering.

Since its founding in 1958, Rosenberger has been family-owned and currently employs around 15,000 people worldwide. The company’s employees are known for their dedication, innovative spirit, and commitment to quality, all firmly rooted in the values of a traditional family business.

For more information, please visit: www.rosenberger.com

PRESS RELEASE

Media Contacts

Rosenberger Hochfrequenztechnik GmbH & Co. KG
Aldo Croci Torti
Marketing Services
Hauptstraße 1
83413 Fridolfing, Germany
Tel. +49 8684 18 1707
aldo.crocitorti@rosenberger.com
www.rosenberger.com

Profil PR oHG
Jan Lauer
Husarenstraße 74
38102 Braunschweig, Germany
Tel. +49 531 387 33 18
j.lauer@profil-pr.com
www.profil-pr.com