PRESS RELEASE

HSI-H-MTD®: Integrated Hybrid Cable Assembly for the Agricultural and Construction Machinery Industries

Combined power and high-speed data transmission between the towing vehicle and the trailer ECU over distances of up to 40 meters

Fridolfing, Germany, June 24, 2026 – With the HSI-H-MTD® cable assembly, Rosenberger introduces a hybrid connectivity solution that combines the proven HSI (High-Speed Implement Bus) connector system on the towing vehicle side with the compact H-MTD® high-speed data connector on the trailer side. The cable assembly integrates power supply and high-speed data transmission into a single, robust connection, developed specifically for use in the agricultural, construction, and commercial vehicle industries. It enables reliable communication between the towing vehicle and the trailer's electronic control unit (ECU), even under demanding conditions.

Hybrid Solution for Increasing Demands

As digitalization advances in the agricultural and construction machinery industries, requirements for data rates, reliability, system integration, and connectivity between towing vehicles and trailers continue to rise. At the same time, operating environments are defined by dust, moisture, vibrations, and UV radiation.

HSI-H-MTD® addresses these requirements by combining two established interface systems into a single integrated solution.

Consolidating power and data transmission into a single system reduces wiring effort, interface complexity, and installation time. On the towing vehicle side, the rugged HSI connector handles power transmission, while on the trailer side, the compact, waterproof H-MTD® connector provides high-speed data transmission directly on the control unit's printed circuit board (PCB).

Rugged and High-Performance in the Field

The cable assembly enables stable data transmission over cable lengths of up to 40 meters and meets the highest requirements for signal and power integrity. The SI/EMC performance is designed for the 1000BASE-T1 standard, and operation is specified up to 48 V. The connector is waterproof to IPX9K – the most stringent protection class for high-pressure cleaning applications.

Coordinated timing of the power and data contacts protects the electronics during mating and unmating under load. With more than 3,000 mating cycles, the system is built for long-term field use.

Standardized and Versatile

The HSI system was developed in collaboration with the Agricultural Industry Electronics Foundation (AEF) and represents an established industry standard for the interoperability of electronic systems in agricultural machinery. Typical applications include data-driven use cases in precision agriculture, such as GPS-assisted seeding, monitoring systems for soil and environmental conditions, data-based control of fertilizer and seed application, and fill-level and tonnage measurement.

The solution is also well-suited for off-road and construction machinery such as excavators, cranes, trucks, and trailers, where reliable power and data transmission under demanding operating conditions is essential.

PRESS RELEASE

Technical Features at a glance

- Suitable for up to 48 V (depending on cable parameters)
- Cable length up to 40 meters
- SI/EMC performance for 1000BASE-T1
- Coordinated timing of power and data pins (protection during mating and unmating under load)
- More than 3,000 mating cycles
- Waterproof to IPX9K
- Flame-retardant and UV-resistant (HSI side)
- Break-away function for safe disconnection in case of accidental pulling

Further information at: https://www.rosenberger.com/product/hsi-high-speed-implement/

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

	The HSI-H-MTD® hybrid cable assembly seamlessly connects the HSI system on the tractor to the computer on the trailer via an H-MTD® connector.
	The robust HSI connector transmits power via larger cable diameters, while the compact, waterproof H-MTD® interface on the trailer side is designed for high-speed data transmission.
	The fully integrated connection ensures a stable connection over cable lengths of up to 40 meters.
	Rosenberger’s cable assembly is waterproof, flame-retardant, and UV-resistant, making it ideally suited for use between a towing vehicle and a trailer.

PRESS RELEASE



GPS-assisted precision seeding in agriculture: The company logo was sown with pinpoint accuracy on a field near Rosenberger's headquarters in Fridolfing, Bavaria.

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 15,500 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

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