

New functions for wireless AGV network

02/20/2020

At the LogiMAT 2020, the steute Technologies "Wireless" business unit will be presenting the latest version of its wireless network solution "nexy", developed specifically for applications such as AGV systems. This wireless system is able to reduce the amount of power required by individual automated guided vehicles (AGV) and thus increase the flexibility of the entire fleet, a function which to date is unique.

Via the wireless network, based on the sWave.NET® LPWAN technology developed by steute, individual AGV which are temporarily not in use are put into a "deep sleep" mode. In this mode they consume only a minimum of power. When the AGV is needed again, it is reactivated via the nexy network by a "wake up" signal with a short reaction time and can then once again be put to productive work by the AGV management system. The resting phases are thus facilitated by the low-power nexy technology.



Manufacturers of automated guided vehicles use the nexy wireless network to increase the energy efficiency and flexibility of AGV fleets (Photo: dpm Daum & Partner Maschinenbau GmbH)

At the LogiMAT 2020, the steute Technologies "Wireless" business unit will be presenting the

latest version of its wireless network solution "nexy", developed specifically for applications such as AGV systems. This wireless system is able to reduce the amount of power required by individual automated guided vehicles (AGV) and thus increase the flexibility of the entire fleet, a function which to date is unique.

Via the wireless network, based on the sWave.NET® LPWAN technology developed by steute, individual AGV which are temporarily not in use are put into a "deep sleep" mode. In this mode they consume only a minimum of power. When the AGV is needed again, it is reactivated via the nexy network by a "wake up" signal with a short reaction time and can then once again be put to productive work by the AGV management system. The resting phases are thus facilitated by the low-power nexy technology.

In practice, this has the advantage that the AGV at rest do not have to be connected to a charging station. In addition, manufacturers are usually able to opt for a smaller and lighter battery without having to sacrifice any operational time – also reducing the costs. At the same time, they have the guarantee that the vehicles can be reactivated at very short notice – within seconds – and at any time.

In the latest version of the system, which steute will be presenting at the LogiMAT, integrated nexy field devices receive firmware updates "live", i.e. by remote control. These updates are made available on the Sensor Bridge and then distributed throughout the local network. This is a simple way to ensure that all end devices have the latest software at all times. Also new are an OPC-UA interface and an SAP connector for cross-platform data exchange.

These features are particularly beneficial when a nexy wireless network is used not only for the AGV "wake up" function, but also for other tasks, such as the supply of materials via mobile, AGV-based eKanban systems.

At the LogiMAT 2020, in Hall 5 Booth D 45, steute Technologies will be demonstrating an example of a nexy application which replenishes workstations with supplies via a mobile eKanban system.