AS-INTERFACE MASTER **NEWS**
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ASi and ASi-5 highlights from Bihl+Wiedemann

ASi-5 Counter Module now also available as active distributor

The range of ASi-5 Counter Modules from Bihl+Wiedemann currently consists of different variants in protection class IP20 and IP67, each with four digital counter inputs that can be individually configured and parameterized. The ASi-5 Counter Module BWU4996 is a new addition to the range. As an active distributor, its flat design (35 mm deep) makes it perfect for installation in the cable duct. The module is equipped with two digital counter inputs that can be individually configured and parameterized as two two-channel or two single-channel inputs.

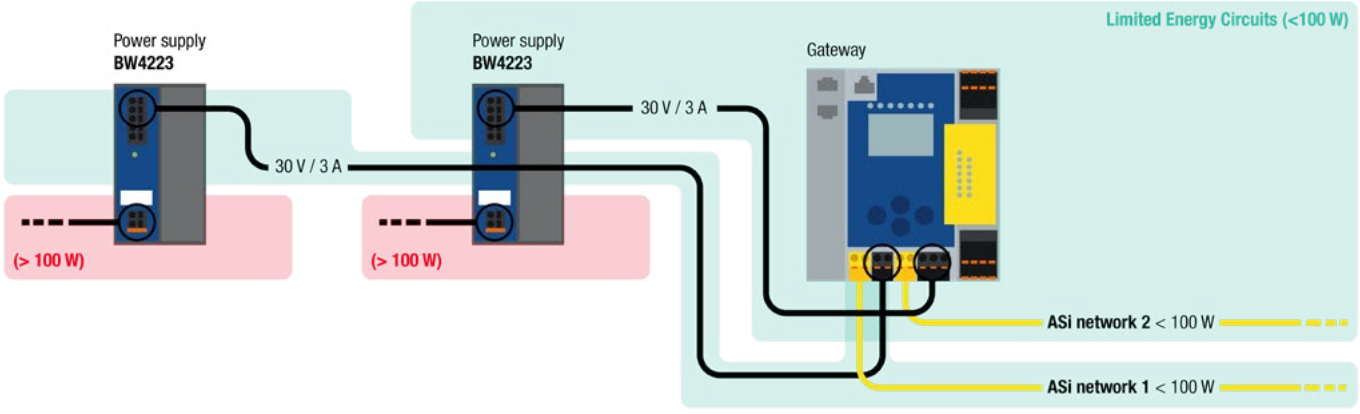
All ASi-5 Counter Modules in the range work with counter frequencies up to a maximum of 250 kHz and also enable the connection of pulse counters and encoders (24 V). In addition to the flexibility in the use of the modules thanks to the individual parameterization and the drastically reduced wiring effort in the field typical of ASi, additional functions ensure that many different applications can be solved cost-effectively with the ASi-5 Counter Modules. The user can now choose between a 32-bit value range and fast transmission of two or four independent 16-bit counter values in just 1.27 ms. And in addition to various counter functions, frequency and period duration measurements with and without filtering can now also be performed, enabling simple piece goods counting, positioning tasks or speed measurements.

UL solutions from Bihl+Wiedemann

Manufacturers from other countries exporting systems to the North American market must comply with local regulations that differ fundamentally from the European IEC standards. In practice, UL certification of the system on-site is essential. Ideally, all components used should already have UL certification.

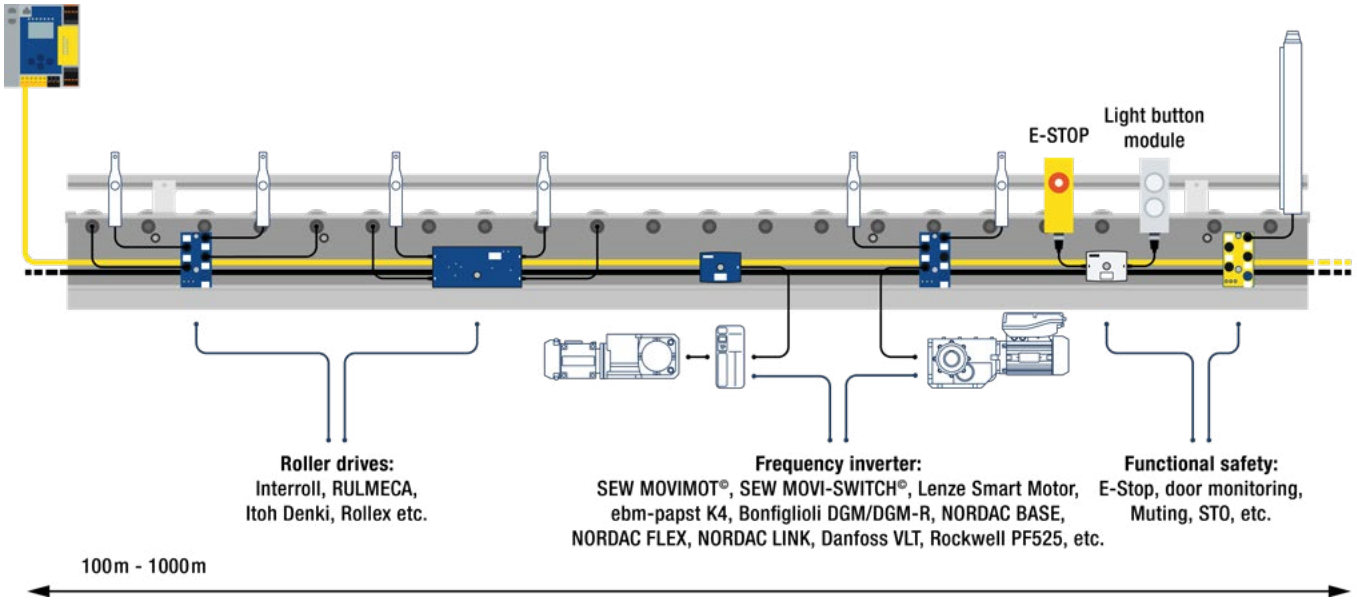
It is often necessary to ensure compliance with the power restrictions associated with NEC Class 2/Limited Energy Circuit in accordance with the standard. The modern ASi solutions from Bihl+Wiedemann – consisting of ASi-5/ASi-3 Gateways and 30 V power supply units – are all UL-certified. NEC Class 2 power supply units or UL-certified power limitation modules are also available to meet the power limitation requirements.

Small applications with only one ASi network and a maximum of 4 A can be easily implemented in compliance with UL by using a 30 V power supply unit BW4223 (UL-certified, NEC Class 2) limited to 100W – in addition to the ASi-5/ASi-3 Fieldbus Gateway – for the power supply. If more than one ASi network is required, we recommend using an ASi-5/ASi-3 Gateway with two ASi networks and integrated decoupling, optimized for 2x Limited Energy Circuit – e.g. BWU3830 for PROFINET or BWU3947 for EtherNet/IP – as well as two 30 V power supply units BW4223. The use of a power limitation module is not required.



Range of ASi-5 and ASi-3 drive solutions for motorized rollers, DC motors and frequency inverters continues to grow

Bihl+Wiedemann already offers an extensive range of motor modules for a variety of drive solutions with ASi-5 for the control of motorized rollers, DC motors and frequency inverters. And the range continues to grow. A SEW MOVIMOT drive can be controlled with the ASi-5 Motor Module BWU4416 in IP67. The module is equipped with four M12 sockets each plus six digital inputs for connecting sensors. The inputs and the motor are supplied out of AUX, which results in higher input performance. For applications where less complex functions need to be implemented cost-effectively, Bihl+Wiedemann also offers a variety of ASi-3 Motor Modules for many drives in different versions.



ASi-5 Safety Muting Module BWU4411

The ASi-5 Safety Muting Module BWU4411 in IP67 from Bihl+ Wiedemann enables different Muting solutions up to SIL3/ PLe to be implemented simply, efficiently and significantly more cost-effectively than with comparable Ethernet-based solutions. Whether cross Muting or sequential Muting, all required sensors and safety components can be flexibly connected to the ASi-5 Safety Muting Module BWU4411.

This means that all signals required for Muting are available in one module under a single ASi-5 address. Unused in- and outputs can be used, for example, to control Muting lights or integrate push-button modules. As an alternative to processing in the ASi Safety Monitor, all relevant signals can also be forwarded via safe fieldbuses such as PROFIsafe, CIP Safety, FSoE or openSAFETY.

The software suite ASIMON360 contains ready-certified Muting blocks for convenient parameterization for many applications. Complex programming in the control system is not required. The ASi-5 Muting solution from Bihl+Wiedemann is also impressive from a cost perspective. The ASi-5 Muting Module BWU4411 is not only a good 60% cheaper than comparable Ethernet-based fieldbus solutions on the market, the user also saves installation and material costs thanks to the simple, fast and fail-safe installation using piercing technology.

ASi-5 Safety Modules in IP20 and IP67

In addition to the ASi-5 Safety Muting Module BWU4411, 12 variants of ASi-5 Safety Input Modules can cover almost all industry-relevant integration and application scenarios thanks to the combination of safe signals and standard signals in one module. To complement the currently available ASi-5 Safety Input Modules in IP67 and IP20, each with 12 standard signals and two safe inputs for floating contacts, for OSSDs or for the combination of floating contact/OSSD, Bihl+Wiedemann is working on comparable solutions for space-saving installation as circuit board modules, for example in a machine control panel, and on slightly more compact field modules with four standard signals in IP67. Further ASi-5 Safety Modules are also in preparation.

ASi-5 Safety Gateways with ASi-5/ASi-3 Safety Monitor

ASi-5 Safety is the perfect complement to ASi Safety at Work whenever safe and standard signals need to be collected in the field, safe high-end sensors need to be connected, more complex safety applications need to be solved, a large number of safe bits need to be transmitted from different nodes or diagnostic and additional information needs to be used. With the ASi-5/ASi-3 Safety Gateways, Bihl+Wiedemann offers the perfect solution for integrating the new safety generation of AS-Interface, which is compatible with all previous ASi devices and components, runs in parallel on the same infrastructure and can therefore be easily integrated into existing applications.

The ASi-5/ASi-3 Fieldbus Gateways with integrated ASi-5/ASi-3 Safety Monitor are already available in different versions for PROFINET and EtherNet/IP, some with safe fieldbus and local I/Os.

At the Hanover Fair, the existing range will be expanded to include ASi-5/ASi-3 Gateways with integrated ASi-5/ASi-3 Safety Monitor, Safe Link, OPC UA and webserver for Safety over EtherCAT (FSoE) for two ASi networks (BWU3962) and for EtherNet/IP+Modbus TCP, CIP Safetyover EtherNet/IP, for one network (BWU4006) and for two networks (BWU4007).

Even aside from ASi-5 safety applications, users benefit directly from the new gateways, which have the same price level as comparable models with ASi-3 safety monitor: in addition to the functional improvements, in particular the modern 16 gigabyte chip card, which can hold the data for an entire project – including safety and hardware configuration, parameter data of connected devices and user comments from ASIMON360.

Simple, flexible, needs-based, cost-effective: IO-Link integration with ASi-5

Connecting IO-Link devices to the control level or cloud offers a range of advantages when using ASi-5 and the ASi-5 Modules with integrated IO-Link Master from Bihl+Wiedemann. With this fieldbus-independent solution, users benefit not only from the perfect embedding of IO-Link into ASi-5 and the user-friendly configuration tools ASIMON360 and ASi Control Tools360, but also from freedom in the choice of topology, reduced wiring effort without pre-assembled plugs and switches, low IP management effort and a smart power supply concept.

And perhaps most importantly: they save costs. This is because ASi-5 Modules with an integrated IO-Link Master are generally not only significantly less costly than Ethernet fieldbus modules or IO-Link hubs, they are also available in just the configuration needed. A finely graduated range of variants with one, two and four Class A and Class B IO-Link ports as well as eight Class A IO-Link ports are available for use in the field. These are supplemented by an OEM module and control cabinet modules with configurable connections for four IO-Link ports, with the ASi-5 control cabinet module BWU4775 also providing four analog inputs (4 ... 20 mA). This means that the user always gets and pays for exactly the connection module with the equipment that they really need.