



AS-Interface | Development

03/2023

ASi-5 AND ASi HIGHLIGHTS FROM BIHL+WIEDEMANN

Self-configuring I/O modules now available in the new cable duct housing

Self-configuring I/O modules are modules in which each digital signal can be used bi-directionally either as in- or output as needed with no prior configuration. This allows one and the same module to be used in many different applications, which among other things simplifies spare parts management. Bihl+Wiedemann offers such modules which in addition provide channel-specific diagnostics, with current models available for 4, 8 and 16 digital signals in various types and form factors with IP67 and IP20 housing.

The product family now also includes two new self-configuring I/O modules for controlling motors in an IP54 housing especially developed for installation in a cable duct: one module with 16 I/Os (BWU4977) and one with 8 I/Os (BWU4979). Connection of periphery is realized using 8 or 4 M12 sockets, the connection to ASi and the supply of sensors and actuators is realized out of AUX via profile cable.



Wide range of ASi-5 and ASi-3 drive solutions for motorized rollers, DC motors and frequency inverters

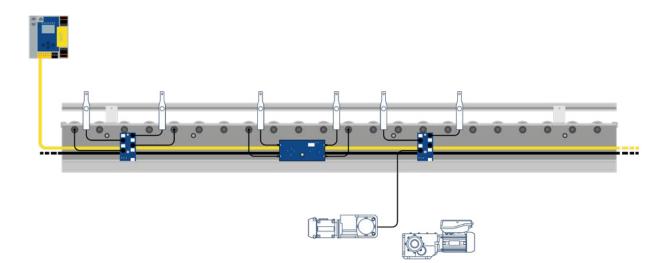
With their wide range of motor modules, Bihl+Wiedemann offers a variety of drive solutions with ASi-5 and ASi-3. This applies both to controlling motorized rollers as well as to DC motors and frequency inverters. The specially designed ASi-5 motor modules in the IP54 housing for installation in cable ducts can control up to four 48 V or 24 V motorized rollers from Interroll or two 24 V motorized rollers from Itoh Denki.

Also available are various ASi-3 modules of this type for up to two 24 V motorized rollers from these same two manufacturers. When two 48 V or 24 V Interroll EC5000 Al rollers need to be controlled in the field using ASi-5, Bihl+Wiedemann also offers the corresponding motor

modules in IP67 housing. These field modules are also supplemented by a variety of ASi-3 versions, including for manufacturers such as Itoh Denki, Rollex and RULMECA.

The same applies for DC motors and frequency inverters made by leading OEMs: when performance parameters like speed, acceleration and braking as well as expanded diagnostics are important, this is efficiently accomplished using ASi-5 as well. Currently available are solutions for SEW MOVIMOT, SEW MOVI-C, NORD NORDAC frequency inverters, ebm-papst K4, Rockwell PF525, Bonfiglioli DGM/DGM-R as well as for Lenze Smart Motors and Lenze i550.

And again: when less complex functions like start/stop, left-right or open/ close need to be implemented cost-efficiently, Bihl+Wiedemann offers a variety of ASi-3 motor modules for many drives in various versions.





ASi-5/ASi-3 Address Programming Device BW4925 from Bihl+Wiedemann with new functions

The modern ASi-5/ASi-3 Address Programming Device from Bihl+Wiedemann is a compact, ergonomic tool for addressing ASi-5 and ASi-3 modules. Featuring an OLED color display, six robust buttons for simple operation and a built-in supercapacitor for power energy storage and fast charging even while in use, this device BW4925 is continuously undergoing advanced development. New functions are made available to the user via the field update function through the integrated USB-C interface.

Immediately apparent are the newly designed menu structure and the unambiguous icon symbols. The standby mode for example is displayed by a crescent moon. The times for standby and turning the device off can now be set in an expanded mode, accessed using the #-key, where you can also set options such as the display language.

Also available in expanded mode is direct access to connected ASi modules for checking and changing their I/O data and basic settings or performing a factory reset of ASi-5 participants. And finally it is also possible now to use the Address Programming Device and a module in the ASi network to access the display of the corresponding gateway, which can significantly simplify and speed up service and maintenance work. The clear representation of operating and entry functions as well as the display of error messages in plain text makes operation of the ASi-5/ASi-3 Address Programming Device self-explanatory

IO-Link integration with ASi-5: simple, flexible, cost-effective



Connecting IO-Link devices to the control level or cloud using ASi-5 and ASi-5 Modules with integrated IO-Link Master from Bihl+Wiedemann brings with it a number of benefits. Users of this fieldbus-neutral solution profit not only from the perfect integration of IO-Link into ASi-5 and into the user-friendly configuration tools ASIMON360 and Control Tools360, but also from the freedom to choose any desired topology, the ability to reduce wiring effort without the use of assembled plugs and switches, low IP management effort as well as a smart energy supply concept.

Another key benefit: you reduce costs. Because ASi-5 Modules with integrated IO-Link Master are in general not only significantly less expensive than Ethernet fieldbus modules or IO-Link hubs, they are also available on demand. For use in the field there is a finely graduated range of versions with 1, 2 and 4 IO-Link ports Class A and Class B as well as for 8 IO-Link ports Class A.

These are complemented by control cabinet modules and an OEM module with configurable terminals for 4 IO-Link ports. Thus, the user gets and pays for only the connection module equipped the way he actually needs it.



ASi-5 Module with eight integrated IO-Link Master Ports

With its eight IO-Link master ports Class A the ASi-5 Module BWU4386 from Bihl+Wiedemann is not only an economical alternative to comparable Ethernet-based fieldbus modules or IO hubs, but also significantly more flexible in its application. For one thing each of the eight IO-Link master ports Class A also provides a standard I/O signal. Pin 2 on the 5-pin, M12 socket can be used to configure an additional in- or output – easily and conveniently using the company's software suite. For another, this ASi-5 module can also send 255 bytes of process data with variable data length.