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Georg Schlegel GmbH & Co. KG

One solution for many options

*The modular bus system of SCHLEGEL - connected in an innovative way!*

One solution for many options: With its modular bus system (MBS), SCHLEGEL offers one solution that can be integrated easily into several communication and bus systems. A compact module that is equipped with additional components like an RFID interface adds to the MBS.

Advanced fieldbus and communication systems are already part of the industrialised field. The flexibility and reliability, as well as the minor wiring effort are the main advantages of an advanced network technology, compared to the conventional parallel wiring. The introduction of IO-Link and IIOT to the market, opened new possibilities to design and to use industrial networks even more purposely and effectively.

Therefore, components and services for industrial networks became an important part in SCHLEGEL's portfolio. As the customers' requirements are quite special and individual, customised solutions are required - one of SCHLEGEL's primal services.

However, is it possible to create a solution that can be used independently from the fieldbus and communication systems? SCHLEGEL's R&D team pursued a solution and found it: the SCHLEGEL modular bus system (MBS).

The MBS is a proprietary bus system that can be easily integrated into different communication systems. An integration into the following fieldbus systems is possible: Profibus DP, AS-Interface or CANopen, as well as Industrial Ethernet Networks like Profinet, Ethernet/IP, EtherCAT or Powerlink, and from now on IO-Link as well. The integration of the MBS itself is surprisingly easy. It just has to be connected to the bus node of the basic module of the corresponding communication system. Every communication of the basic module is made via the internal proprietary data bus regardless of the external system.

There is also an expansion module that offers additional inputs and outputs. With an additional cable, up to 128 units like pushbuttons, selector/key switches, pilot lights etc. can be added and operated.

Each module type has 8 inputs and 8 outputs and is designed in a 25x25mm, 27x27mm or 30x30mm mounting grid for installation into front panels. The technology of the modular bus system, however, is as flexible and adaptable as the customer's requirements. The design can also be adapted individually.

The newest products for the Industrial Ethernet system are a gateway with internal 2-port switch and an expansion module. The gateway comes with an RFID interface and an AD converter. The expansion module also includes an RFID interface and additionally has 8 I/Os.

Compact gateway with additional function

The four variants of the gateway can be connected to Profinet, Ethernet/IP, EtherCAT or Powerlink network via the RJ45 connector of the 2-port switch. The M12 connector (or alternatively cage clamp) is used to connect the additional expansion modules to the MBS.

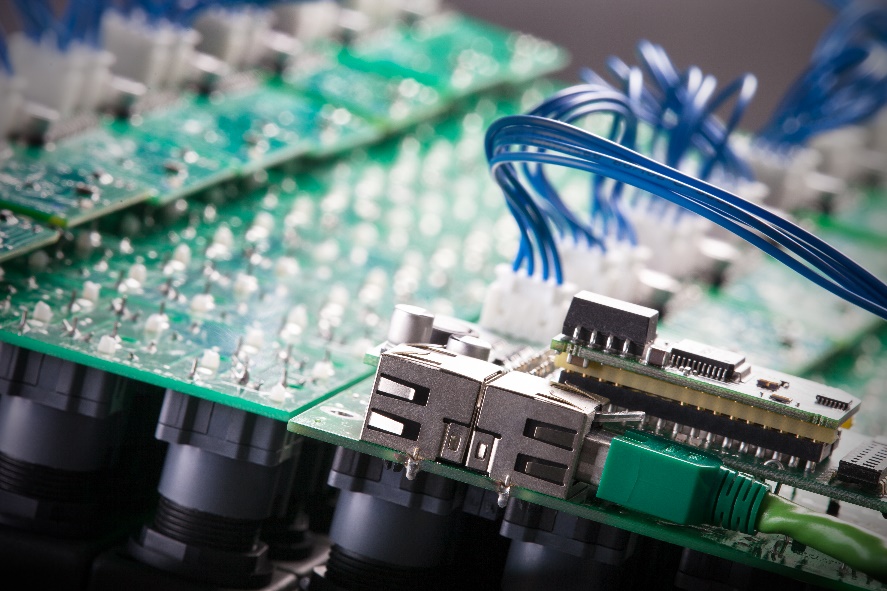
The advantage of the gateway over the basic module is that it is very compact and therefore can be placed wherever it suits to fulfil functions like RFID user management or to connect a potentiometer.

The RFID control inside the gateway bases on SCHLEGEL's TMS\_TCA system. This means that the tags can be programmed easily on every computer and used right away with the TMS management software. The RFID module directly transfers the read information to the bus.

Expansion module with RFID interface

The expansion module is also equipped with a TMS\_TCA system that works similarly to the gateway. The 8 I/Os can be used to add further control elements. 2 I/Os are for the control of the illumination ring of the RFID reader, 6 I/Os for high loads up to 1A.

The MBS is an easy and quick to install system and ideal for the use with SCHLEGEL's pushbuttons and switches. The MBS is a reliable and cost-effective solution. The advantage: It is not a rigid concept, but is adaptable according to the customer's requirements.

Photo

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| *Caption:*  The modular bus system is flexible and universal and therefore can be connected to different communication systems. The new gateway is a compact module, expanding SCHLEGEL's MBS range. Photo: SCHLEGEL |
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About Georg Schlegel GmbH & Co. KG

Schlegel stands for innovation, quality and design. Founded in 1945, SCHLEGEL is today a globally operating company with headquarters in Germany, sales offices in Austria and Singapore, and sales partners in more than 80 countries on all five continents. The core competences: Development and production of control units, pilot lights and terminal blocks. The product portfolio further includes bus systems, enclosures, limit switches, control panels and functional components. When developing new products, Schlegel sets high standards as to the design. 100 national and international design awards confirm the company's high level of design expertise, among these prizes are the iF Design Award, the Red Dot Award, the Good Design Award and the German Design Award.