schleicher

wieland

System solut

System components

Components

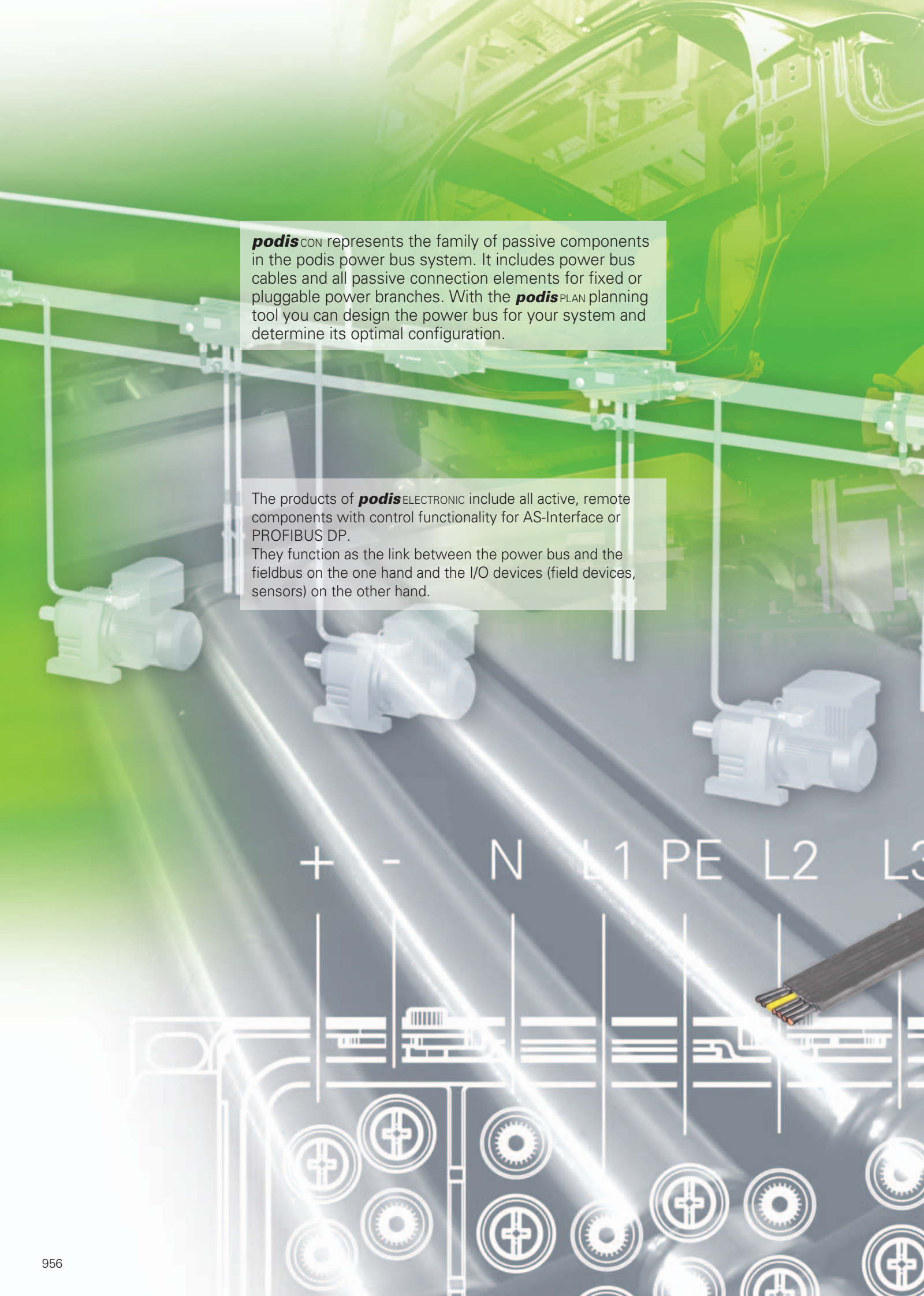## Components and System Components for Field Applications

Remote automation

The power bus system for remote installation and fieldbus interfaces for applications in the automotive industry, conveyor technology and system engineering.

RST

A complete connector system with IP68 protection that fulfills all the requirements of an economical electrical installation, both in plant engineering and device engineering.

Industrial multipole connectors

Specially designed for applications in rough environmental conditions. The main areas of application are the automotive industry, mechanical engineering and system engineering as well as measuring and control technology.

*podis*CON represents the family of passive components in the podis power bus system. It includes power bus cables and all passive connection elements for fixed or pluggable power branches. With the *podis*PLAN planning tool you can design the power bus for your system and determine its optimal configuration.

The products of *podis*ELECTRONIC include all active, remote components with control functionality for AS-Interface or PROFIBUS DP.
They function as the link between the power bus and the fieldbus on the one hand and the I/O devices (field devices, sensors) on the other hand.

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podis®*dis*

Decentralization in automation

Until a few years ago almost all industrial systems were supplied with power and control signals from a central control cabinet. Drive elements were then switched, controlled, regulated and monitored through contactors, circuit breakers or frequency converters within the central control cabinet. All drives as well as sensors and actuators were started individually through cables connected to the control cabinet. As the drive units became increasingly complex with their optional components such as brakes, special fans or position sensors or encoders, additional cable connections to the central control system were required.

Central installation
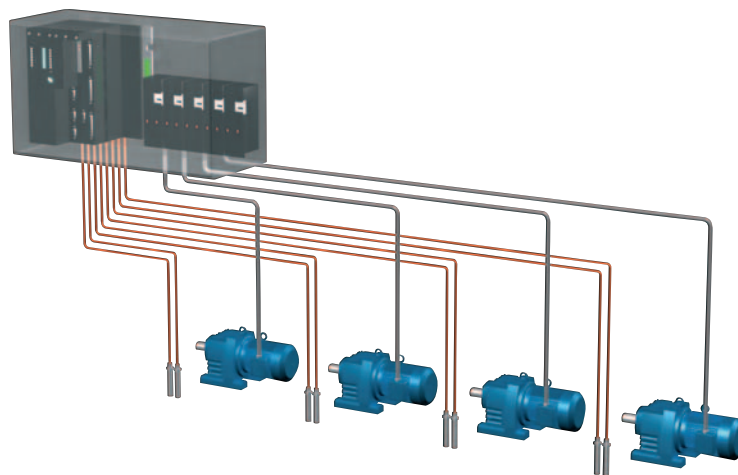
Remote automation has greatly expanded, particularly in wide-area industrial systems, as the amount of cabling material required causes considerable installation costs. Remote installation has established itself even in systems with only a few I/O points, but many drives spread over a wider area. As a result the number of central control cabinets has fallen to a minimum. Their task is limited to power supply via circuit breakers and possibly the control of signal processing and diagnostics. Distribution of the power and signals in the field, however, is performed within a remote system through a power and data bus, where the power of control signals can ideally be tapped off in any required position close to the field device.

Remote installation

Remote automation
podis
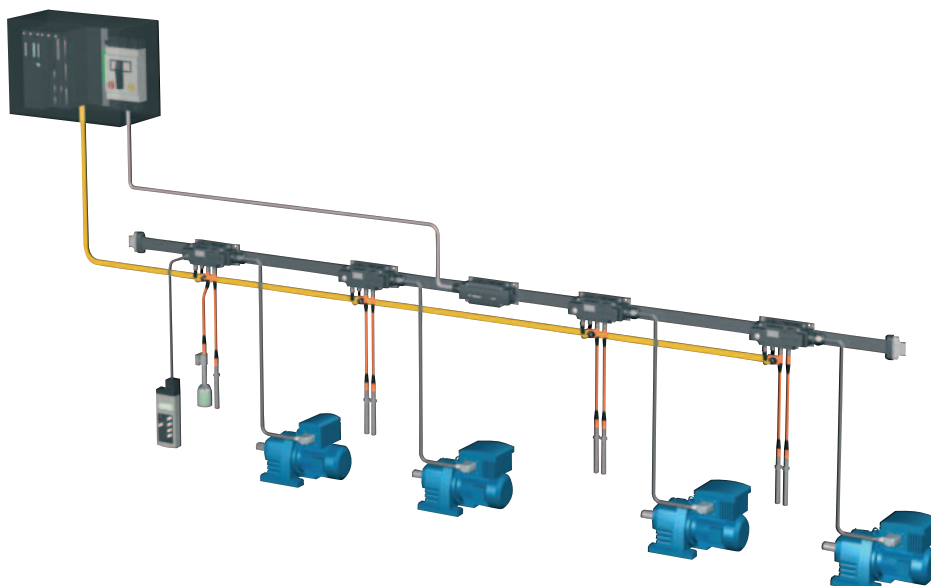
Power bus for remote installation: *podis*® CON

The **podis** power bus is a remote system. Power is distributed in the field through 7 pole flexible flat cables in 2.5 mm² or 4 mm². Fixed or pluggable power outputs for the drives are installed quickly, easily and close to the field device in any position required without interruption of the power bus line. The **podis** system is based on the 7 pole flexible flat cable and an interruption-free connection technology with insulation-piercing termination. This is a new concept of power transmission and distribution in protection degree IP 65 for

automation technology in industrial environments. Wieland Electric introduced the system to the market in 2000, and regularly has been able to prove its reliability and potential for efficiency since then.

Regarding its safety, the system operates stably according to EN 60 947-7-1 over extended periods of time.

What are the outstanding features of the **podis** power bus?

- Simple and fast installation
- Prevention of wiring errors due to coded power outputs
- Contacting without stripping the sheath or insulation
- Flexible addition of branch lines
- Connection of power outputs – pluggable or fixed
- Optimal design of the power bus by means of the planning tool **podis** PLAN
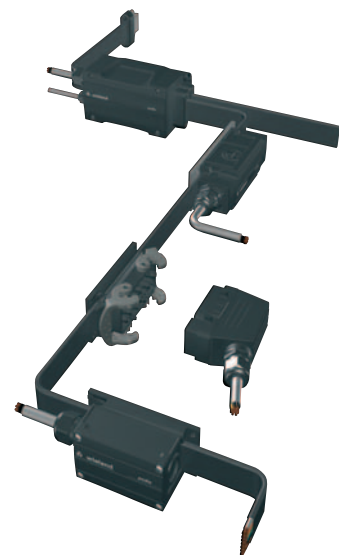
podis CON

Field components for remote automation: *podis*® ELECTRONIC

A power bus can, in principal, be constructed with all fieldbus systems that have a common cable and connection technology for data and auxiliary power. These include, for example, AS-Interface or PROFIBUS DP. A tailor-made solution for the power bus is the AS-Interface that harmonically completes the flexible power rail with its typical features such

as tree structure, unscreened two-wire cable and integrated auxiliary power. The data volume per address meets the requirements for simple sensors and actuators such as motor starters. The available address space with a maximum of 62 addresses provides sufficient options for additional AS-i components.

The **podis** CON power bus can be combined with the **podis** ELECTRONIC interface modules to transfer not only the data, but also serially from module to module the power required for the drives. Very heavy drive cables are replaced by one single power cable. This is also a benefit in view of electromagnetic compatibility, as the interference spectrum is omitted that would build within the system over several hundred meters when the drives are switched in a central control cabinet. Induced interferences are now limited to the connection cable from the remote motor starter to the drive – mostly only a few meters – and are omitted completely in case of motor-integrated starters. As there are only a few different modules, specifying and ordering is extremely simplified.
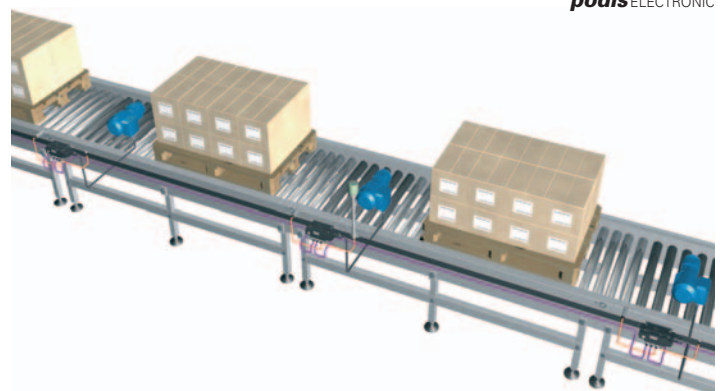
podis ELECTRONIC

Remote installation with the *podis*® power bus – *podis*®CON

podis®

Supply and distribution

Power and auxiliary voltage are supplied through the connection module, the distribution module or directly inside the control cabinet through the control cabinet bushing. Another possibility is provided with the **revos**POWER connectors with flat cable bushings. The AS-Interface signal can also be transmitted instead of the auxiliary power through a 7 pole flat cable wire pair. With connection clips with integrated suppressor circuit, the AS-Interface signals are coupled into the power bus or decoupled from it.
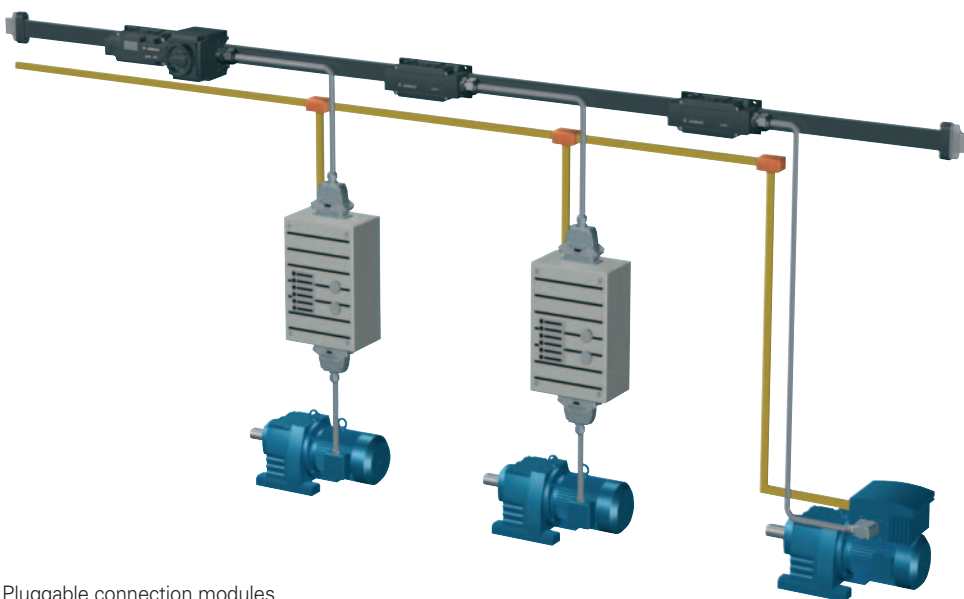
Output without Interruption

Connection modules with firmly connected cables or pluggable cable outputs are connected to the power bus quickly and error-free in any position required by using the integrated insulation-piercing termination. Mechanical preparation such as stripping of the sheath or insulation is not required. The coded flat cable ensures an error-free connection.

Supply, distribution, connection

Fixed connection modules

Pluggable connection modules
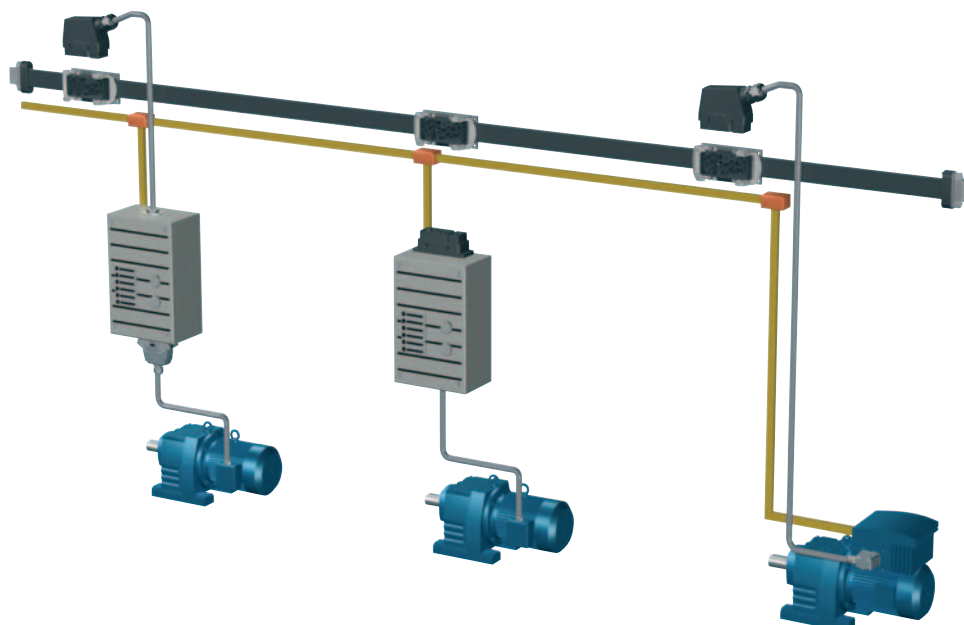
Remote automation with the *podis*® power bus – *podis*®ELECTRONIC

podis
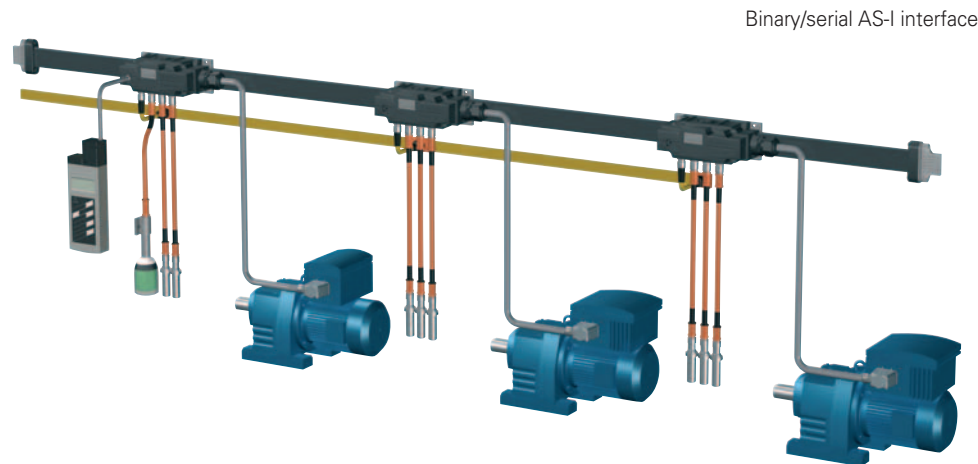
Binary/serial AS-I interface

The power bus can be constructed, in principal, with all fieldbus systems.

AS-Interface external

- AS-i interfaces with power supply from remote motor starters or frequency converters through binary or serial protocols.
- Switching of single-phase field devices such as valves, magnetic valves or solenoids.
- Connection of up to three sensors/actuators through M12 connectors.
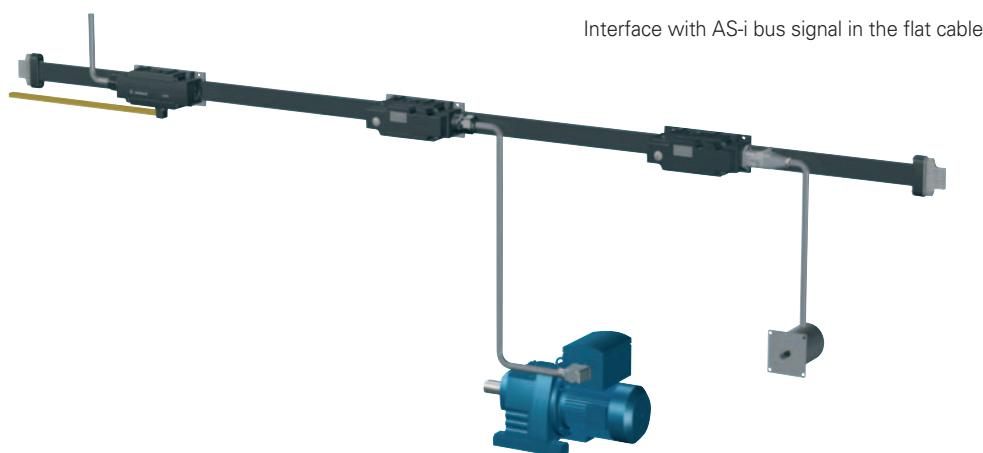
Interface with AS-i bus signal in the flat cable

AS-Interface integrated

Remote field devices that separate their auxiliary power from the AS-Interface, alternatively can also be controlled through interfaces with AS-Interface integrated in the flat cable.
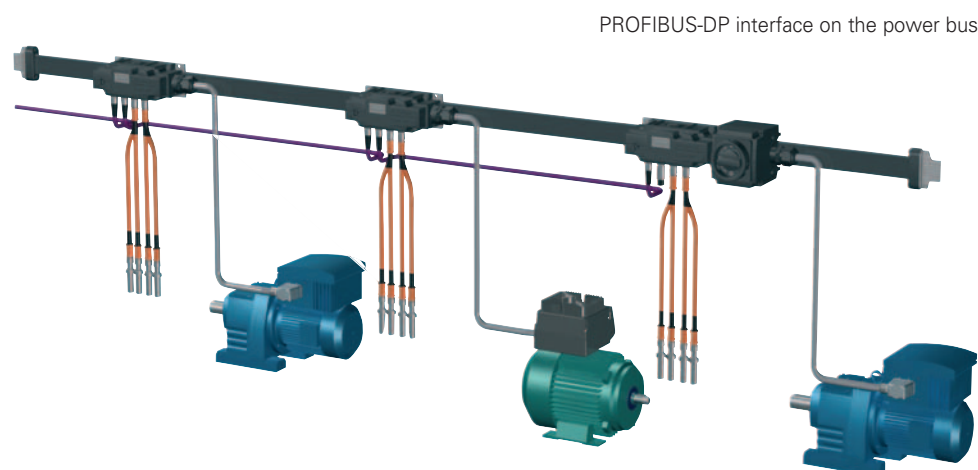
PROFIBUS-DP interface on the power bus

PROFIBUS-DP

PROFIBUS-DP interfaces for remote drives with integrated frequency converters for increased requirements in configuration and diagnostics.

Applications

podis®

podis® applications in practice

podis is used daily in different areas such as in the automotive industry, in material handling technology, in mechanical engineering and in special-purpose machine engineering. Our customers benefit from the clear cost reductions of a remote power distribution with **podis,** as

• it can be planned and configured clearly and flexibly, and

• installed or reconfigured quickly and with little material;

• the system is ready for operation within no time;

• optimal diagnostics and maintenance are ensured as the installation is easily accessible.

Bar chart comparing Central installation and Remote installation:
- Components: 100% / 110–150%
- Planning: 100% / 50–70%
- Installation: 100% / 40–60%
- Maintenance: 100% / 50%
- Total costs: 100% / 70–90%

Legend: Central installation / Remote installation
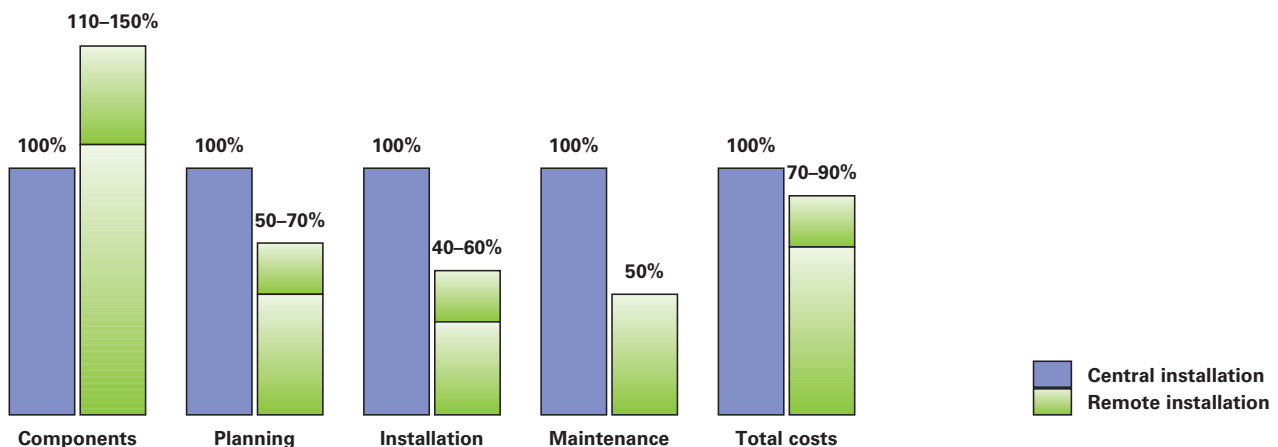
These are the direct effects of remote power bus installation and the specific **podis** connection technology that prevents most wiring errors. **podis** is easy to service, as all components are installed in such a way that they are easily viewed and accessible. The diagnostics functions make it easy to troubleshoot the system. The pluggable installation is consistent and thus enables a quick and simple replacement of the components. Practical applications have proven that the systems are clearly less interference-prone during operation than traditional installations, and therefore provide greater availability. These factors are decisive for competitiveness and quality in all industries. With **podis** they can be optimized even more compared to conventional systems.

Applications
podis

Conveyor technology in the automotive industry:

podis fulfills the requirements for ever shorter system installation and start-up times. In addition to the compulsory flat cable, the typical components of such an application are the remote fieldbus interfaces for the drives.

podis can be installed easily and quickly; it defines the modular principle, as *podis* components can be integrated into the pre-assembly of the system. On site, the pre-assembled modules only have to be connected and put into service.

podis in material handling technology:

podis supports and contributes to the benefits of flexibility provided by modern conveyor systems that are used in intralogistics or conveyor systems in airports.

podis in mechanical engineering:

Large manufacturing plants as well as special-purpose machines can fully utilize the properties of *podis*, particularly its interruption-free power output from any position of the power line. The *podis* application options mirror the variety of applications in mechanical engineering and special-purpose machine construction.

podis ELECTRONIC modules are used to control remote motor starters and AC motors as well as other applications operated by magnet coils such as valves, solenoids or track switches.

Remote automation
podis

Planning software *podis* PLAN

As a power distribution system for remote supply at the field level, the power bus provides serious savings potential regarding design costs, installation and start-up. Instead of the point-to-point distribution from the control cabinet to the individual field device, the power bus supplies not only power to the individual field devices but also distributes control voltages or data.

For an efficient design of the system and in order to assess the required protection standards, the results of electrotechnical calculations for utilization, voltage drop and short circuit are required.

The planning tool *podis* PLAN supports you in configuring the power requirements for your specific power bus system.

The graphical presentation helps you determine the optimal design for your power bus including the ideal supply point. Thus you avoid system failure caused by non-responsive protection devices. You avoid overdimensioning of the cables that is common in "safe designs" based on experience. Inconsistencies or unfavorable configurations are recognized immediately in planning. You thus avoid cost-intensive errors from the first design stage.

Project management

The project explorer helps you to manage documents in an orderly manner, *podis* PLAN provides clear management of both complete and partial projects.

Entering network and supply parameters

The user first enters the network or supply parameters required for supply of main and auxiliary power to the power bus:

- Rated line voltage AC/DC
- Permissible voltage drop
- Ambient temperature
- Loaded wires

Part No. 95.502.1010.0

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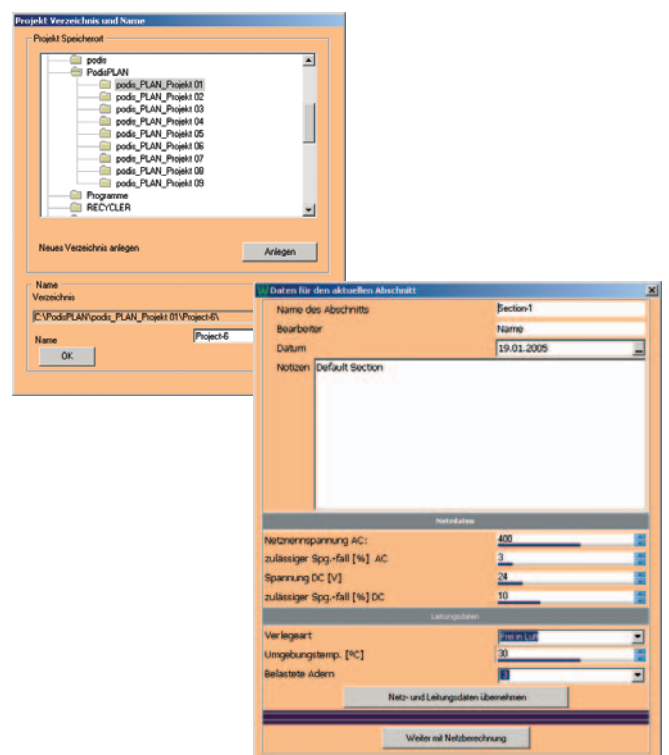
Remote automation

podis
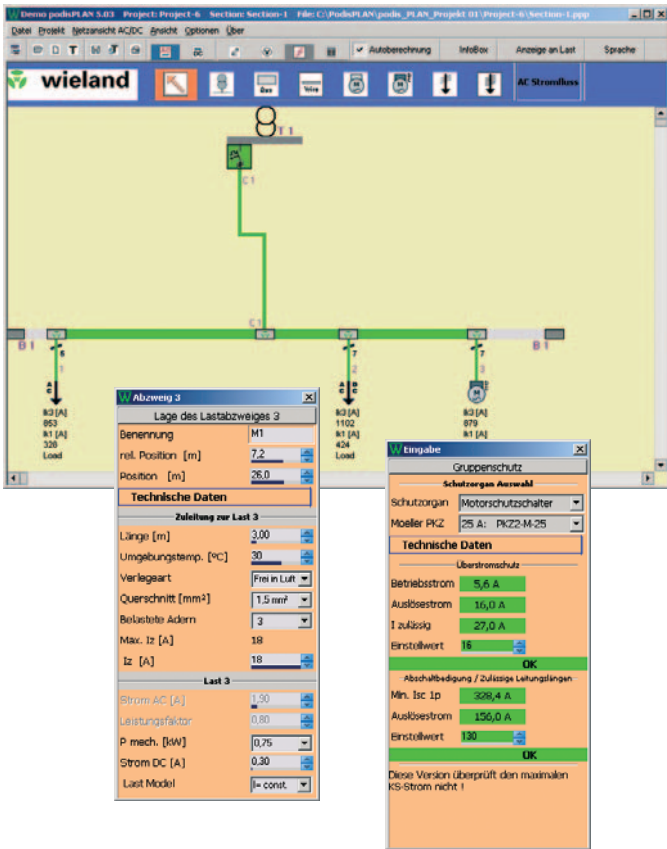
Entering the system protection, cable and load parameters

You can graphically configure your systems including the assignment of the components. Protection devices, cable and load parameters can be selected and entered conveniently in the input form.

Supply parameters:
- Supply position on the power bus
- Selection and setting of the protection devices
- Supply short-circuit current IK''

Load parameters:
- Connection position on the power bus
- Power consumption and load current
- cos phi
- Permissible voltage drops
- Simultaneity factor
- Load determination

Installation parameters
- Installation type
- Cable cross section and number of loaded cables
- Ambient temperature
- Length and cross sections of the supply cables and the power bus

Calculation

podis PLAN calculates the permissible static load for the system configuration and defines the following characteristics based on your input:

- Total power and total current (AC and DC)
- Short-circuit current (AC and DC)
- Voltage drop
- Current carrying capability
- Total length and segment lengths
- Meterization lengths

Output

The results are output graphically or tabularly. The values are calculated in the background during input; overload and errors are highlighted in color in the diagram. For documentation purposes, the results can be saved or printed using the project explorer.

Technical notes

podis®*dis*
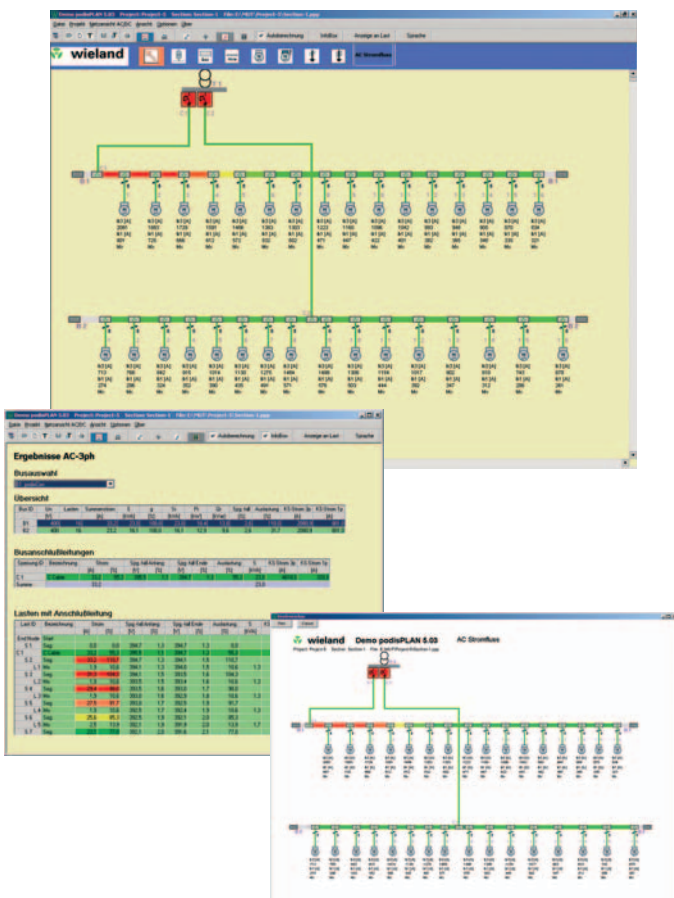
In line with the valid regulations, installation, start-up and maintenance of all *podis*CON components must be selected by qualified specialists.
The *podis*CON flat cable must be secured with a line breaker according to DIN VDE 0100 sec. 460 and 537.
*podis*CON must only be operated in networks with grounded supply (TN-S networks). An ungrounded design of *podis* systems is not permissible. According to DIN VDE 0100-520, the cable and line systems including their accessories must only be installed in those ambient temperatures that lie within the relevant cable standard range or the limit values specified by the manufacturer. The limit values for the flat cable are indicated in tables 1 and 2 for a specified protection depending on the layout and the number of loaded conductors.
The limit values for the connection components depending on the temperature and the loaded wires are provided in table 3.

Table 1: Current carrying capability of the *podis*CON flat cable PVC 7 x 2.5 mm²

	Suspended in the air d >10 mm			Loose on the wall or floor			Cable duct		
Loaded wires	3	5	6	3	5	6	3	5	6
Temperature °C	max. leakage current			max. leakage current			max. leakage current		
20	32	25	25	25	20	20	25	20	20
25	32	25	25	25	20	20	25	20	20
30	25	25	20	25	20	20	20	20	16
35	25	20	20	25	20	20	20	16	16
40	25	20	20	20	16	16	20	16	16
45	20	20	16	20	16	16	16	16	12
50	20	16	16	16	16	12	16	12	12

Table 2: Current carrying capability of the *podis*CON flat cable EVA 7 x 4 mm²

	Suspended in the air d >10 mm			Loose on the wall or floor			Cable duct		
Loaded wires	3	5	6	3	5	6	3	5	6
Temperature °C	max. leakage current			max. leakage current			max. leakage current		
20	40	35	35	40	32	32	35	30	25
25	40	35	35	35	32	30	35	30	25
30	40	35	32	35	30	25	32	25	25
35	35	32	30	32	25	25	30	25	25
40	35	30	25	30	25	25	25	20	20
45	32	25	25	25	20	20	25	20	20
50	25	25	20	25	20	20	20	20	16

Under other installation conditions, standard VDE 0298-4 will apply.

Table 3: Limit values of the current carrying capability of the *podis*CON connection components on the flat cable EVA 7 x 4 mm²;
Valid for: - Connection module fixed; 7 pole spring clamp connection (75.018.0051.2) and
- Flat cable output pluggable; 7 pole (75.015.5153.1)

	Termination point						
Ambient temperature °C	1	2	3	4	PE	5	6
20	25	25	25	0	0	25	25
25	25	25	25	0	0	25	25
30	25	25	25	0	0	20	20
35	25	25	25	0	0	10	10
40	23.5	23.5	23.5	0	0	10	10
50	16	16	16	0	0	16	16

🌀 **wieland**

Components
podis

7 pole power bus flat cable for the remote installation system **podis**. For use under normal mechanical strain in industrial areas. For fixed installation in dry, humid or wet rooms as well as in cable ducts. The EVA flat cable is also suitable for outdoor installations.

Electrical connection through system-compliant insulation-piercing termination, or screw terminal or spring clamp terminal.

Not suitable for permanent installation in water or in the ground. Not suitable for ground cables.

Manufacturer's declaration of conformity for the contact system according to IEC 60947-1.
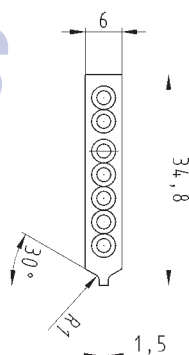
6	white
5	red
PE	green/yellow
4	blue
3	gray
2	black
1	brown
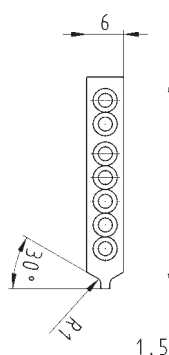
6	black
5	black
PE	green/yellow
4	black
3	black
2	black
1	black

Flat cable
7 x 2.5 mm² PVC
Approvals:

Flat cable
7 x 4 mm² EVA
Approvals: being prepared:

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
Flat cable	7 x 2.5 mm², PVC gray	00.705.0503.3	1(*)	7 x 4 mm², EVA black	00.709.0504.1	1(*)
	(*) Drum with approx. 1000 m, cut to order			(*) Drum with approx. 1000 m, cut to order		
Technical data						
Rated current	For the current carrying capability see the derating table on page 968			For the current carrying capability see the derating table on page 968		
Rated voltage	690/1000 V (VDE)			450/750 V (VDE)		
	600 V (UL)			1000 V (UL)		
Outer sheath	PVC			EVA		
Sheath color	light gray			black		
General data						
Temperature ranges						
– Ambient operating temperature	-15 °C – +50 °C			-15 °C – +90 °C		
– Installation/connection	+10 °C – +50 °C			-5 °C – +50 °C		
Dimensions	Cross section 35 x 6.1 mm with single-sided coding			Cross section 35 x 6.1 mm with single-sided coding		
Bending radius	min. 100 mm			min. 18 mm		
Weight	402 kg/km			440 kg/km		
Max. pull force (over the entire cable width) during installation	50 N/mm²			50 N/mm²		
Oil resistance	DIN VDE 0281-1 and CENELEC HD 21.1 53 Tab. 2			DIN VDE 0473 sec. 811-2-1		
Resistance	resistant to acids, lyes, detergents			resistant to acids, lyes, detergents		
				spatter-resistant		
Flammability class	self-extinguishing according to DIN VDE 0472 sec. 804 B and IEC 60332-1			self-extinguishing according to DIN VDE 0472 Teil 804 B and IEC 60332-1		
Fire behavior				Flame-retardant according to VDE 0482 Teil 265-2-1 (EN50265-2-1)		
Substances preventing paint curing	none			none		
Halogens	included			none		
Accessories						
Fastening clip		05.562.3000.0	100		05.562.3000.0	100
Cable end cap IP65		Z5.562.7553.1	10		Z5.562.7553.1	10
Cutter		95.300.0300.0	1		95.300.0300.0	1
Sheath stripping knife					95.350.0700.0	1
Sheath stripping tool		95.350.0300.0	1			
Sealing sleeve		Z1.005.6553.1	1		Z1.005.6553.1	1
Flat cable bushing		Z5.563.6553.1	10		Z5.563.6553.1	10

Components

podis®

The power and control voltage are drawn from or supplied to the flat cable interruption-free through the connection modules.
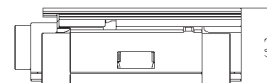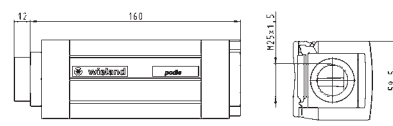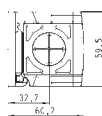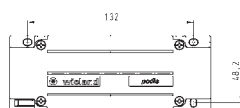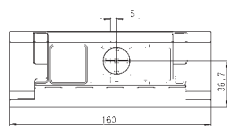
Connection module 16 A, 7 pole
Spring clamp connection
Approvals being prepared: CCC UL SEV

Connection module 16 A, 7 pole
Screw connection
Approvals: SEV

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
Connection module 7 pole with knockouts 2 x M25, 2 x M20; spring clamp terminals	FCS 4 7 SI FK	75.018.0051.2	5			
Connection module 7 pole, with threaded cable gland M25 x 1.5; screw terminals, black				FCS 2,5 7 SI SA	75.016.0051.2	5
Connection module 7 pole, with threaded gland M25 x 1.5; screw terminals, light gray				FCS 2,5 7 SI SA	75.016.0053.2	5
Technical data						
Rated current (up to 50 °C ambient temperature)	16 A – For derating see page 968 table 3			16 A		
Rated cross section	4 mm^2			2.5 mm^2		
Connection technology	Spring clamp terminals			Screw terminals		
Conductor size AWG	16 – 12			16 – 14		
Wire range						
– stranded and fine-stranded	1.5 – 4 mm^2			1.5 – 2.5 mm^2		
– solid	1.5 – 6 mm^2			1.5 – 4 mm^2		
Rated voltage						
– Primary circuit (L1, L2, L3, N, PE)	500 V/6 kV (VDE); 600 V (UL, CSA)			277/480 V/4 kV/3 (VDE); 600 V (UL, CSA)		
– Secondary circuit (5; 6)	50 V/0.8 kV/3 (VDE); 125 V (UL); 150 V (CSA)			50 V/0.8 kV/3 (VDE); 125 V (UL); 150 V (CSA)		
General data						
Dimensions L x W x H	160 x 60 x 60 mm			171 x 59.5 x 60 mm		
Temperature range						
– Ambient operating temperature	-15 °C – +50 °C			-15 °C – +50 °C		
– Installation/connection	See under "Cables"			See under "Cables"		
Overvoltage category	III			III		
Degree of protection	IP65 (when connected)			IP65 (when connected)		
Accessories						
Cable gland M25 x 1.5 black, for round cables with						
– cable diameter of 9 – 16 mm		Z5.507.1453.1	10		Z5.507.1453.1	10
– cable diameter of 13 – 18 mm		Z5.507.1553.1	10		Z5.507.1553.1	10
Lock nut M25 x 1.5 black		05.505.0253.1	10			
Cable gland M20 x 1.5, black,						
– cable Ø 7 – 13 mm		Z5.507.1353.1	10			
– for AS-i profile cable		Z5.505.0653.1	10			
Lock nut M20 x 1.5, black		05.505.0153.1	10			

Components
podis

The power and control voltage are drawn from the flat cable interruption-free through the connection modules.

Connection module 16 A, 2 pole
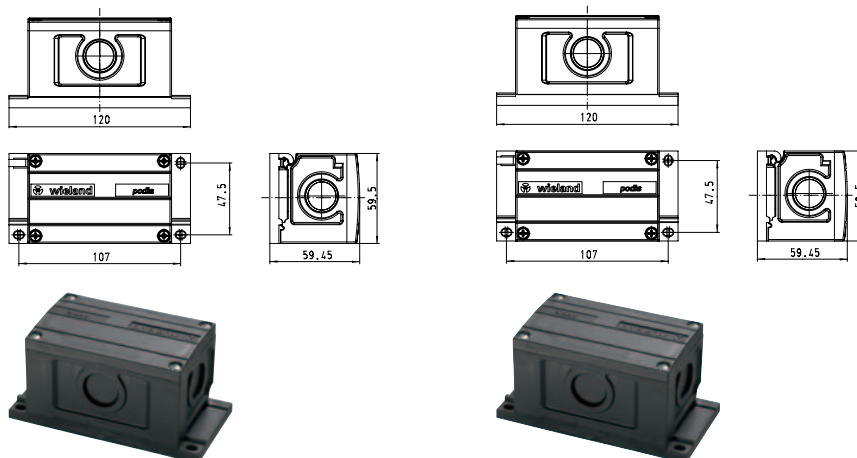**Screw connection**
Approvals: ⟨SEV⟩ being prepared: ⚡ ⓒⒸⒸ

Connection module 16 A, 3 pole
Screw connection
Approvals: ⟨SEV⟩ being prepared: ⚡ ⓒⒸⒸ

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
Connection module 2 pole with knockouts (3 x M20)	FCS 2,5 2 SI SA	75.016.2053.1	5			
contacted cables 5; 6						
Connection module 3 pole with knockouts (3 x M20)						
contacted cables 4; 5; 6				FCS 2,5 3 SI SA	75.016.3053.1	5
Technical data						
Rated current (up to 50 °C ambient temperature)	16 A			16 A		
Rated cross section	2.5 mm^2			2.5 mm^2		
Connection technology	Screw terminals			Screw terminals		
Conductor size AWG	16 – 14			16 – 14		
Wire range						
– stranded and fine-stranded	1.5 – 2.5 mm^2			1.5 – 2.5 mm^2		
– solid	1.5 – 4 mm^2			1.5 – 4 mm^2		
Rated voltage						
– Primary circuit (L1, L2, L3, N, PE)						
– Secondary circuit (5; 6)	50 V/0.8 kV/3 (VDE), 125 V (UL), 150 V (CSA)			50 V/0.8 kV/3 (VDE), 125 V (UL), 150 V (CSA)		
General data						
Dimensions L x W x H	120 x 60 x 60 mm			120 x 60 x 60 mm		
Temperature range						
– Ambient operating temperature	-15 °C – + 50 °C			-15 °C – + 50 °C		
– Installation/connection	see under cables			see under cables		
Overvoltage category	III			III		
Degree of protection	IP65 (when connected)			IP65 (when connected)		
Accessories						
Cable gland M25 x 1.5 black, for round cables with						
– cable diameter of 9 – 16 mm						
– cable diameter of 13 – 18 mm						
Lock nut M25 x 1.5 black						
Cable gland M20 x 1.5, black,						
– cable Ø 7 – 13 mm		Z5.507.1353.1	10		Z5.507.1353.1	10
– for AS-i profile cable		Z5.505.0653.1	10		Z5.505.0653.1	10
Lock nut M20 x 1.5, black		05.505.0153.1	10		05.505.0153.1	10

Components

podis®

The distribution module is a multi-functional component within the **podis**CON power bus system. It is used to supply, branch and distribute power or control voltage. All cables are connected to two-tier DIN rail terminal blocks inside the distribution module.

The pluggable flat cable outlet is the connection of choice whenever end devices are connected to the power bus by plugging them in. The electrical contact to the flat cable is produced through insulation-piercing termination.
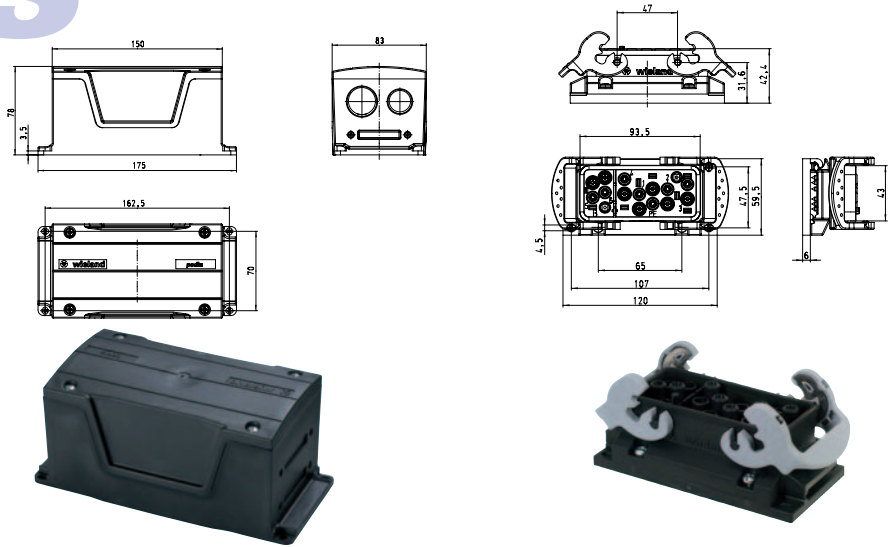
Distribution module 32 A
Approvals: SEV being prepared: 🆄🅻 CCC

Flat cable outlet, pluggable 16 A
Approvals being prepared: 🆄🅻 CCC SEV

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
Flat cable outlet, pluggable, with locking lever				FCS 4 7 SI BU, 7-polig	75.015.5153.1	5
Distribution module (1 x M25; 1 x M20; 3 x flat cable)	FCS 4 7 SA SA, 7-polig	75.010.0053.1	2			
Technical data						
Rated current (up to 50 °C ambient temperature)	32 A			16 A – For derating see page 968 table 3		
Rated cross section	4 mm²			4 mm²		
Connection technology	Screw terminals			Insulation-piercing termination		
Conductor size AWG	22 – 10 (UL)					
Wire range						
– stranded and fine-stranded	1.5 – 4 mm²					
– solid	1.5 – 6 mm²					
Rated voltage						
Primary circuit (L1, L2, L3, N, PE)	500 V/6 kV/3 (VDE); 600 V (UL/CSA)			500 V/6 kV/3 (VDE), 600 V (UL, CSA)		
Secondary circuit (5; 6)	500 V/6 kV/3 (VDE); 600 V (UL/CSA)			50 V/0.8 kV/3 (VDE), 125 V (UL), 150 V (CSA)		
General data						
Dimensions L x W x H	176 x 81.5 x 78 mm			120 x 60 x 60 mm		
Temperature range						
– Ambient operating temperature	-15 °C – +50 °C			-15 °C – +50 °C		
– Installation/connection	see under cables			see under cables		
Overvoltage category	III			III		
Overvoltage category	IP65 (with appropriate cable glands)			IP65 (when locked)		
Accessories						
Protective cover					07.409.7256.0	10
Male connector for flat cable outlet						
Cable gland M25 x 1.5 black, for round cables with						
– cable Ø 9 – 16 mm		Z5.507.1453.1	10			
– cable Ø 13 – 18 mm		Z5.507.1553.1	10			
Lock nut M25 x 1.5 black		05.505.0253.1	10			
Cable gland M20 x 1.5 black, for round cables with						
– cable Ø 7 – 13 mm		Z5.507.1353.1	10			
– for AS-i profile cable		Z5.505.0653.1	10			
Lock nut M20 x 1.5, black		05.505.0153.1	10			
podisCON flat cable bushings		Z5.563.6553.1	10			

Components

podis

With the **podis**CON male connector, field devices can be connected to the power bus by plugging them in.

With the expansion connector, field devices or sub-distribution units can be connected directly to the power bus without using a connection cable.
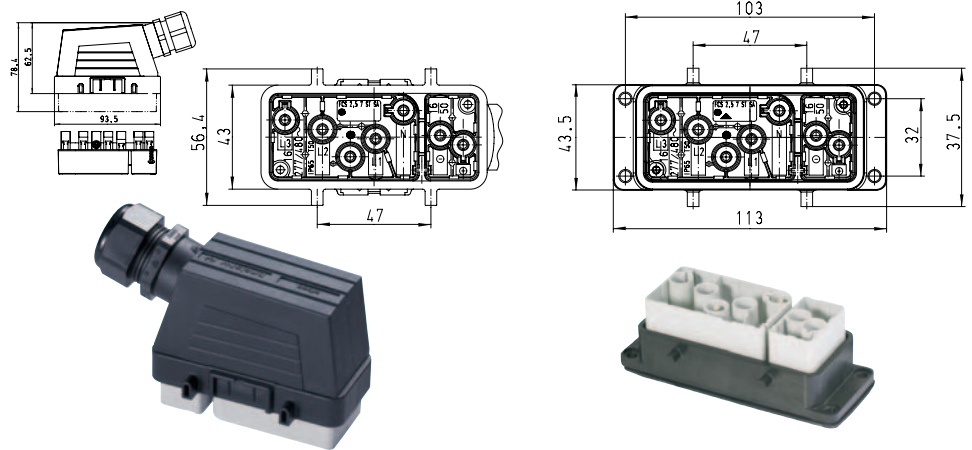
podisCON male connector 16 A
Approvals: SEV being prepared: UL CCC

Expansion connector insert 16 A
Approvals being prepared: UL CCC SEV

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
podisCON male connector, 7 pole 16 A with cable gland for round cables 9 – 16 mm	FCS 2,5 7 ST SA	75.015.0051.0	5			
podisCON male connector, 7 pole 16 A without cable gland	FCS 2,5 7 ST SA	75.015.0051.2	5			
Expansion connector with **podis**CON connector insert 16 A				FCS 2,5 7 ST SA SU	75.015.1053.1	5
Technical data						
Rated current (up to 50 °C ambient temperature)	16 A			16 A		
Rated cross section	2.5 mm^2			2.5 mm^2		
Connection type	Screw terminals			Screw terminals		
Wire size AWG	16 – 14			16 – 14		
Wire range						
– stranded and fine-stranded	1.5 – 2.5 mm^2			1.5 – 2.5 mm^2		
– solid	1.5 – 4 mm^2			1.5 – 4 mm^2		
Insulation strip length	10 mm			10 mm		
Rated voltage						
Primary circuit (L1, L2, L3, N, PE)	277/480 V/4 kV/3 (VDE), 600 V (UL, CSA)			277/480 V/4 kV/3 (VDE), 600 V (UL, CSA)		
Secondary circuit (5; 6)	50 V/0.8 kV/3 (VDE), 125 V (UL), 150 V (CSA)			50 V/0.8 kV/3 (VDE), 125 V (UL), 150 V (CSA)		
General data						
Dimensions L x W x H	93.5 x 56.4 x 78.4 mm			113 x 56.4 x 37.5 mm		
Temperature range						
– Ambient operating temperature	-15 °C – +50 °C			-15 °C – +50 °C		
– Installation/connection	-15 °C – +50 °C			-15 °C – +50 °C		
Overvoltage category	III			III		
Degree of protection	IP65 (when locked)			IP65 (when locked)		
Accessories						
Cable gland M 25 x 1.5 black, for round cables with						
– cable Ø 9 – 16 mm		Z5.507.1453.1	10			
– cable Ø 13 – 18 mm		Z5.507.1553.1	10			
Lock nut M25 x 1.5 black		05.505.0253.1	10			

Connection cables

podis®

With the **podis**CON male connector, field devices can be connected to the power bus by plugging them in.

Pre-assembled cables are available in various designs.
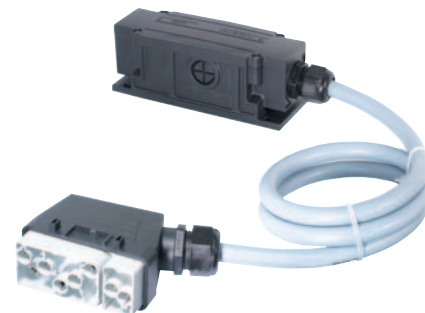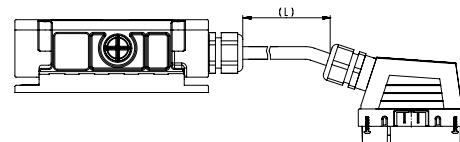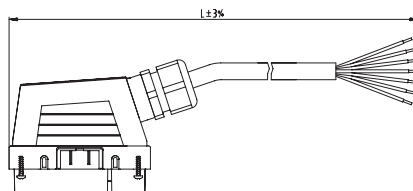
Connection cable 7 x 2.5 mm²
Male connector – Free end
with ultrasonically welded wire ends

Sheath strip length: 130 mm
Insulation strip length: 7 mm

Connection cable 7 x 2.5 mm²
Male connector –
Connection module

Description		Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
Ölflex Classic 110 gray, 7 x 2.5 mm²	1.0 m	FCS 2,5 7 STSA_-10	83.301.1020.1	10	FCS 2,5 7 STSA_SIFK 10	83.302.1025.1	10
	2.0 m	FCS 2,5 7 STSA_-20	83.301.2020.1	10	FCS 2,5 7 STSA_SIFK 20	83.302.2025.1	10
	3.0 m	FCS 2,5 7 STSA_-30	83.301.3020.1	1	FCS 2,5 7 STSA_SIFK 30	83.302.3025.1	5
	4.0 m	FCS 2,5 7 STSA_-40	83.301.4020.1	1	FCS 2,5 7 STSA_SIFK 40	83.302.4025.1	5
	5.0 m	FCS 2,5 7 STSA_-50	83.301.5020.1	5	FCS 2,5 7 STSA_SIFK 50	83.302.5025.1	5
	6.0 m	FCS 2,5 7 STSA_-60	83.301.6020.1	1	FCS 2,5 7 STSA_SIFK 60	83.302.6025.1	5
	7.0 m	FCS 2,5 7 STSA_-70	83.301.7020.1	1	FCS 2,5 7 STSA_SIFK 70	83.302.7025.1	3
	8.0 m	FCS 2,5 7 STSA_-80	83.301.8020.1	1	FCS 2,5 7 STSA_SIFK 80	83.302.8025.1	3
	9.0 m	FCS 2,5 7 STSA_-90	83.301.9020.1	1	FCS 2,5 7 STSA_SIFK 90	83.302.9025.1	3
		Other versions available on request			Other versions available on request		

Connection cables
podis

The field devices can be connected and fixed to the power bus through the connection modules.

Pre-assembled cables are available in various designs.

Connection cable 7 x 4 mm²
Male connector – Free end
with ultrasonically welded wire ends

Sheath strip length: 130 mm
Insulation strip length: 7 mm

Connection cable 7 x 4 mm²
Connection module –
Connection module

Description		Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
Ölflex Classic 110 gray, 7 x 4 mm²	1.0 m	FCS 4 7 SIFK – 10	83.304.1030.1	1	FCS 4 7 SIFK_SIFK 10	83.303.1039.1	10
	2.0 m	FCS 4 7 SIFK – 20	83.304.2030.1	8	FCS 4 7 SIFK_SIFK 20	83.303.2039.1	10
	3.0 m	FCS 4 7 SIFK – 30	83.304.3030.1	1	FCS 4 7 SIFK_SIFK 30	83.303.3039.1	5
	4.0 m	FCS 4 7 SIFK – 40	83.304.4030.1	1	FCS 4 7 SIFK_SIFK 40	83.303.4039.1	5
	5.0 m	FCS 4 7 SIFK – 50	83.304.5030.1	1	FCS 4 7 SIFK_SIFK 50	83.303.5039.1	5
	6.0 m	FCS 4 7 SIFK – 60	83.304.6030.1	1	FCS 4 7 SIFK_SIFK 60	83.303.6039.1	5
	7.0 m	FCS 4 7 SIFK – 70	83.304.7030.1	1	FCS 4 7 SIFK_SIFK 70	83.303.7039.1	3
	8.0 m	FCS 4 7 SIFK – 80	83.304.8030.1	1	FCS 4 7 SIFK_SIFK 80	83.303.8039.1	3
	9.0 m	FCS 4 7 SIFK – 90	83.304.9030.1	1	FCS 4 7 SIFK_SIFK 90	83.303.9039.1	3
		Other versions available on request			Other versions available on request		

Connection cables

podis®

The field devices can be connected and fixed to the
power bus through the connection modules.
The switch disconnector interrupts the main power
between the field devices and the power bus.
Other designs available on request.

Connection cable 7 x 4 mm²
Connection module with service
switch
with ultrasonically welded wire ends

Sheath strip length: 130 mm
Insulation strip length: 7 mm

Description		Type	Part No.	Std. Pack	
Ölflex Classic 110 gray, 7 x 4 mm²	1.0 m	FCS 4 7 SIFK_REP_ – 10	83.305.1030.1	1	
	2.0 m	FCS 4 7 SIFK_REP_ – 20	83.305.2030.1	1	
	3.0 m	FCS 4 7 SIFK_REP_ – 30	83.305.3030.1	1	
	4.0 m	FCS 4 7 SIFK_REP_ – 40	83.305.4030.1	1	
	5.0 m	FCS 4 7 SIFK_REP_ – 50	83.305.5030.1	1	
	6.0 m	FCS 4 7 SIFK_REP_ – 60	83.305.6030.1	1	
	7.0 m	FCS 4 7 SIFK_REP_ – 70	83.305.7030.1	1	
	8.0 m	FCS 4 7 SIFK_REP_ – 80	83.305.8030.1	1	
	9.0 m	FCS 4 7 SIFK_REP_ – 90	83.305.9030.1	1	
		Other versions available on request			

System components and accessories

podis

The power bus is terminated with the cable end caps.

After the connection components have been removed, the termination points are sealed with a sealing sleeve.

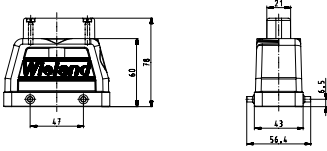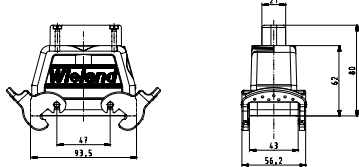| Picture	Description	Type	Part No.	Std. Pack
	Cable end cap Protection degree IP65	Cable end cap IP65	Z5.562.7553.1	10
	Fastening clips for flat cable wall mount	Fastening clip	05.562.3000.0	100
	Flat cable bushing with strain relief Protection degreeIP65	Bushing	Z5.563.6553.1	10
	Cover for unused flat cable bushing	Gasket	05.563.7983.0	5
	Sealing sleeve for sealing the termination points Protection degree IP65	Sealing sleeve	Z1.005.6553.1	1
	Cutter for cutting the power bus cables to length	Cutter	95.300.0300.0	1
	Tool for stripping the sheath of the PVC flat cable	Sheath stripping tool	95.350.0300.0	1
	Knife for stripping the sheath of the EVA flat cable	Sheath stripping knife	95.350.0700.0	1
	Spare blade for sheath stripping knife	Spare blades	05.564.5400.0	1
	Screwdriver bit Phillips size 1, shank length 45 mm for connecting the connection modules and pluggable outlets	Screwdriver bit PH1	06.502.5200.0	10
	Screwdriver PH1 for connecting the connection modules and pluggable outlets	Screwdriver PH1	06.502.5100.0	5
	Screwdriver according to DIN 5264 0.6 x 3.5 for opening the clamping body of the spring clamp termination points inside the connection modules	Screwdriver	06.502.5000.0	10

System components and accessories
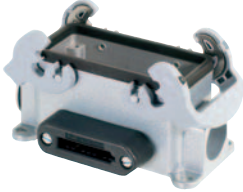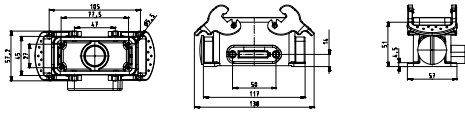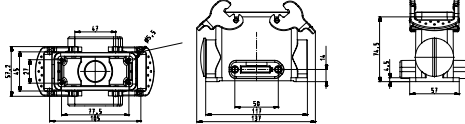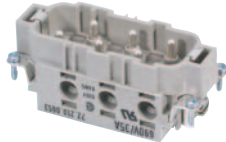
podis® *podis*

Picture	Description	Type	Part No.	Std. Pack
	Cover plate size 10, gray, slotted for *podis*CON bushing Protection degree IP65 with *podis*CON flat cable bushing	Cover plate DF	Z5.563.7553.0	10
	Cover plate size 10, gray, unslotted Protection degree IP65	Cover plate	07.416.6953.0	10
	Protective cover for pluggable flat cable outlet or *revos*POWER connector; size 16 Protection degree IP65	Protective cover	07.409.7256.0	10
	Cable gland M25 x 1.5, black, for round cables Protection degree IP68	Ø 9 – 16 mm	Z5.507.1453.1	10
	Cable gland M25 x 1.5, black, for round cables Protection degree IP68	Ø 13 – 18 mm	Z5.507.1553.1	10
	Cable gland M20 x 1.5, black Protection degree IP68	Ø 7 – 13 mm	Z5.507.1353.1	10
	Cable gland M20 x 1.5, black Protection degree IP68	for AS-i profile cable	Z5.505.0653.1	10
	Lock nut M25	M25 x1.5, black	05.505.0253.1	10
	Lock nut M20	M20 x1.5, black	05.505.0153.1	10

wieland

Subject to technical change without prior notice

System components and accessories
podis

The **revos** connectors with bushings for the 7 pole **podis**CON flat cable connect two power bus segments or serve as the transition between a round and a flat cable. Through the **revos**POWER inserts, the full rated current of the power bus cables can be transmitted.

Picture	Description	Type	Part No.	Std. Pack
	Hood size 16; for double locking levers with flat cable bushing **podis**CON; protection degree IP65	BAS GOT16 FCS ZH	75.900.1628.0	1
	Hood size 16; with double locking levers and flat cable bushing **podis**CON; protection degree IP65	BAS GOT16 FCS ZH V	75.900.1528.0	1
	Closed-bottom housing, size 16; with double locking levers and flat cable bushing **podis**CON; one side; protection degree IP65	BAS GUT16 FCS ZH V	75.900.1028.0	1
	Closed-bottom housing, size 16; with double locking levers and flat cable bushing **podis**CON; two sides; protection degree IP65	BAS GUT16 2FCS ZH V	75.900.1128.0	1
	Female insert	POW BUS 6 6,0 69 AG	70.200.0653.0	10

Technical data	
Approvals	🇺🇱
Number of poles	6+PE
Rated current	35 A
Rated voltage	690 V (VDE), 600 V (UL, CSA)
Pollution degree	3
Connection type	Screw terminals
Wire range	2.5 – 6 mm^2
Insulation strip length	12 mm
Temperature range	-40 – 110 °C

	Connector insert	POW STS 6 6,0 69 AG	70.210.0653.0	10

Technical data	
Approvals	🇺🇱
Number of poles	6+PE
Rated current	35 A
Rated voltage	690 V (VDE), 600 V (UL, CSA)
Pollution degree	3
Connection type	Screw terminals
Wire range	2.5 – 6 mm^2
Insulation strip length	12 mm
Temperature range	-40 – 110 °C

System components and accessories

podis®

Through the flat cable, the AS-i can be distributed instead of the control voltage. Through the connection module that is equipped with the AS-i connection accessories, the AS-i bus signals can be taken from the flat cable without interruption-free. With the AS-i cable gland, the AS-i profile cable is routed out of the connection module. An overvoltage protection is recommended for the transition; it is already included in the AS-i FK connection clip.

AS-i flat cable connection clip
with overvoltage protection

AS-i S LTG
with overvoltage protection

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
	Approvals:			Approvals:		
AS-i surge arrester	AS-i S PG	83.198.0600.0	2	AS-i S LTG	83.198.1600.0	5
Technical data						
Rated voltage	29.5 – 31.6 V			29.5 – 31.6 V		
Current carrying capability	2 A			2 A		
Slave equivalence	1/6			1/6		
Parallel resistance Rp	220 kΩ			220 kΩ		
Shunt capacitance Cp	15 pF			15 pF		
Breakdown voltage	±37 V			±37 V		
Connection of the AS-i standard cable	yes			no		
Connection cable cross section	0.5 mm^2			0.5 mm^2		
Polarized	yes			yes		
Cable gland	PG 13.5					
Housing material				RPP 371; gray		
Temperatures						
– Ambient operating temperature	-25 °C – + 70 °C			-25 °C – + 70 °C		
– Storage temperature	-25 °C – + 70 °C			-25 °C – + 70 °C		
Degree of protection	IP67					

Subject to technical change without prior notice

System components and accessories
podis

With the *podis*PLAN planning software you can conveniently determine the optimal power bus configuration. The values are calculated in the background during input. Overload and errors are highlighted in color in the graphical output.

A sample kit with *podis*CON components is available. It incudes all basic components of the *podis*CON system.

*podis*PLAN **planning software**

podis® CON **sample kit**

Description	Type	Part No.	Std. Pack	Type	Part No.	Std. Pack
*podis*CON sample kit				*podis* sample kit	95.400.0200.0	1
*podis*PLAN planning software for the *podis* power bus	*podis*PLAN V5	95.502.1010.0	1			
Contents of the sample kit				Flat cable 7 x 2.5 mm^2; 7 x 4 mm^2		
				Connection module 2 to 7 pole		
				Pluggable cable outlet		
				Cable end cap (bus termination)		
				Cable bushing		
				Cable cutter		
				Sheath stripping tools		
				Sealing sleeve		
podisPLAN planning software						
General	Project management through the project explorer					
	Print function of the graphical and tabular outputs					
Input						
Supply parameters	Supply position					
	Supply short-circuit current					
	Supply voltage					
	Length and cross section of the supply cables					
	Supply type: End, middle or double supply					
	Selection and setting of the protection devices					
Installation parameters	Ambient temperature					
	Layout type					
	Number of loaded cables					
	Total power bus length					
Load parameters	Connection position on the power bus					
	Power consumption or load current					
	cos phi					
	Permissible voltage drop					
	Simultaneity factor					
Output						
Static load values	Total power and total current (AC und DC)					
	Short-circuit current (AC and DC)					
	Voltage drop on each branch					
	Current carrying capability and thermal load					
	Total length and segment lengths					
	Meterization lengths					

AS-i interface for remote installation
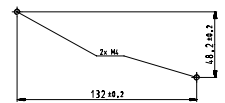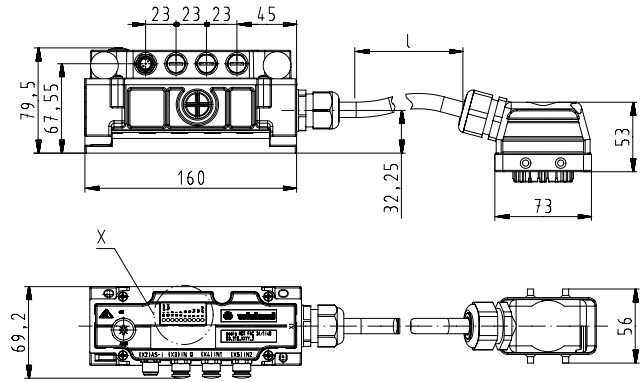
podis®

AS-i interface *podis* MOT FA C 3I / 1I4O

Approvals: ASI

Ordering data

AS-i control with power supply for drives with integrated frequency converter or starter and binary interface,

pre-assembled with cable **Ölflex Classic** 11 x 1.5 mm² and *revos* BASIC

Description	Type	Part No.	Std. Pack
podis MOT	FA C 3I/1I4O 0.5 m	83.210.0501.2	1
podis MOT	FA C 3I/1I4O 1.0 m	83.210.1001.2	1
podis MOT	FA C 3I/1I4O 1.5 m	83.210.1501.2	1
podis MOT	FA C 3I/1I4O 2.0 m	83.210.2001.2	1
podis MOT	FA C 3I/1I4O 2.5 m	83.210.2501.2	1
podis MOT	FA C 3I/1I4O 3.0 m	83.210.3001.2	1

Other cable lengths and designs
such as with switch disconnector available on request

Wiring diagram / connection

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	MOT A C 3I/1I4O	83.209.2106.2	5
Spare cable	Motor connection cable	available on request	1
AS-i adapter	AS-i adapter M12	83.209.2201.0	5
AS-i tap line	AS-i tap line 0.3 m	83.209.2203.0	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-i 1.5 m	83.209.2205.0	1

Displays / operating components
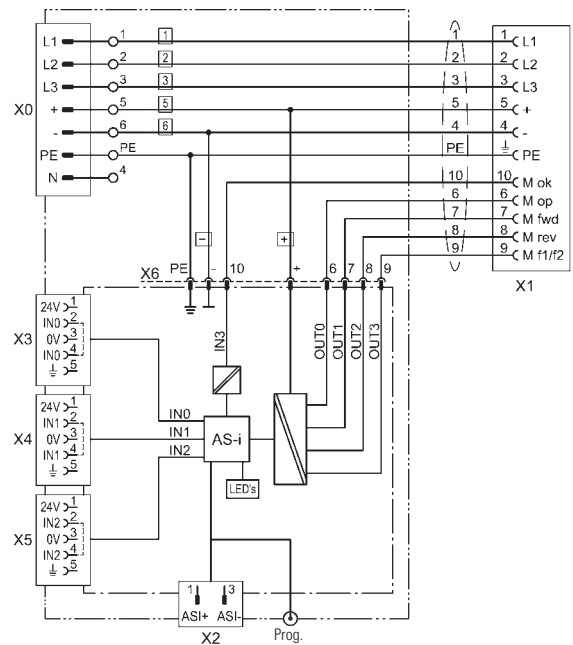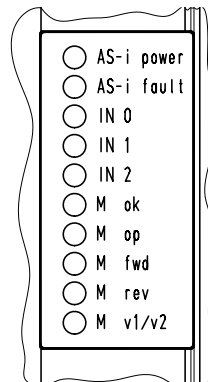
Color	Name	Meaning	I/O bit
green	AS-Interface Power	AS-Interface power okay	
red	AS-Interface fault	Fault in the AS-Interface	
yellow	IN0	Input M12	IN0
yellow	IN1	Input M12	IN1
yellow	IN2	Input M12	IN2
yellow	M ok	Motor ready	IN3
yellow	M op	Motor electronics ON	OUT0
yellow	M fwd	Motor clockw. rot	OUT1
yellow	M rev	Motor countercl. rot	OUT2
yellow	M f1/f2	Setpoint switch-over f1/f2	OUT3

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AS-i interface for remote installation

podis

Function	Technical data	
	General data	
The *podis* MOT FA C 3I/1I4O is an AS-i actuator module on the *podis* power bus used for control and power supply of remote drives with binary interfaces. Through pre-assembled cables, the drives are connected to easy to service *revos* BASIC connectors at the power bus. On the three free inputs, 2-wire as well as 3-wire sensors can be connected through pre-assembled M12 connection cables. The sensors are directly supplied by the module.	Slave type	Standard slave
	AS-Interface specification	V2.11, single slave, ID 7FFE, 4E/4A
	Number of addressable slaves	31
	Addressing option	DC fem. connect. 1.3 mm
	Displays/operation elements	
For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0)	LED AS-i power	AS-i voltage okay; LED green
	LED AS-i fault	Fault in the AS-Interface; LED red
	LED IN0, IN1, IN2	Inputs IN0; IN1; IN2 through M12; LED yellow
	LED 6 to 10	Status indication for the drive; LED yellow
An LED is available in the module cover for each channel that indicates the current switching state and the status of the inputs.		
	Electrical data	
	Rated operating voltage U_N	230/400 V AC
	Rated operating current I_N	16 A
The AS-i transmission cable is connected through an M12 connector. If the AS-i flat cable is to be used, the AS-i tap line as well as the AS-i adapter must also be used. Contact to the power bus is made through insulation-piercing termination.	Rated operating voltage U_e	24 V DC +- 20 % (19.2 V – 28.8 V)
	Rated operating current I_e	max. 200 mA from AS-Interface
	Input	
	Digital inputs (supply through AS-Interface)	3 inputs for 2-wire or 3-wire sensors DC through M12
	Digital input (supply from 24 V ext. power bus)	1 input as motor feedback through motor cable
	Supply current	max. 50 mA per initiator
	Input current	typ. 5 mA
	Signal level U_{HIGH}/ U_{LOW}	+15 V – +31.5 V/-3 V – +5 V
	Signal delay	typ. 1 ms
	Output (control signals)	through pre-assembled motor cable
	Digital outputs	4 electronic outputs, PNP overload and short-circuit proof
	Supply	24 V ext. from power bus
	Output current	max. 500 mA per output
	Signal delay	typ. 1 ms
	Output (load circuit)	through pre-assembled motor cable
	Rated output voltage	400 V AC
	Rated operating current	16 A
	Ambient conditions	
	– Ambient temperature	0 °C – +40 °C
	– Storage temperature / transport	-25 °C – +60 °C/-25 °C – +70 °C
	Mechanical data	
	Degree of protection	IP65 according to EN 60529
	Protection class	class 1 according to IEC536
Features	Connection (power bus)	Insulation-piercing termination
• AS-Interface certificate	Connection (drive)	Pluggable through *revos* BASIC
• Protection degree IP65	Connection of AS-i and sensors	M12 x 1 round connector
• Electronic cover, easy to service and pluggable	Weight:	1060 g
• Function display for bus, ext. auxiliary power, inputs and outputs	Dimensions L x W x H	162.0 x 70.5 x 80.0 mm (without cable gland)
	Fixation	Mounting plate
• Connection through insulation-piercing termination on the power bus	Installation position	any; preferably horizontal wall mount
• Addressing terminal		

		Programming instructions	See the *podis* manual	

Data bit (function through AS-Interface)	**Input**	**Output**
D0	IN0	OUT0
D1	IN1	OUT1
D2	IN2	OUT2
D3	IN3	OUT3

Features (continued):
• Three inputs for 2-wire and 3-wire sensors through M12
• Easy to service pluggable connection of remote drives

Parameter bit (programmable through AS-i)	**Input**	**Output**
P0	not used	
P1	not used	
P2	not used	
P3	not used	

AS-i interface for remote installation

podis®


AS-i interface *podis* MOT **FA C 2I1O / 1I3O**

Approvals:

Ordering data

AS-i control with power supply for drives with integrated switching and protection function and binary interface,

pre-assembled with cable **Ölflex Classic** 11 x 1.5 mm² and *revos* BASIC.

Description	Type	Part No.	Std. Pack
podis MOT	FA C 2I1O/1I3O 0.5 m	83.212.0501.2	1
podis MOT	FA C 2I1O/1I3O 1.0 m	83.212.1001.2	1
podis MOT	FA C 2I1O/1I3O 1.5 m	83.212.1501.2	1
podis MOT	FA C 2I1O/1I3O 2.0 m	83.212.2001.2	1
podis MOT	FA C 2I1O/1I3O 2.5 m	83.212.2501.2	1
podis MOT	FA C 2I1O/1I3O 3.0 m	83.212.3001.2	1
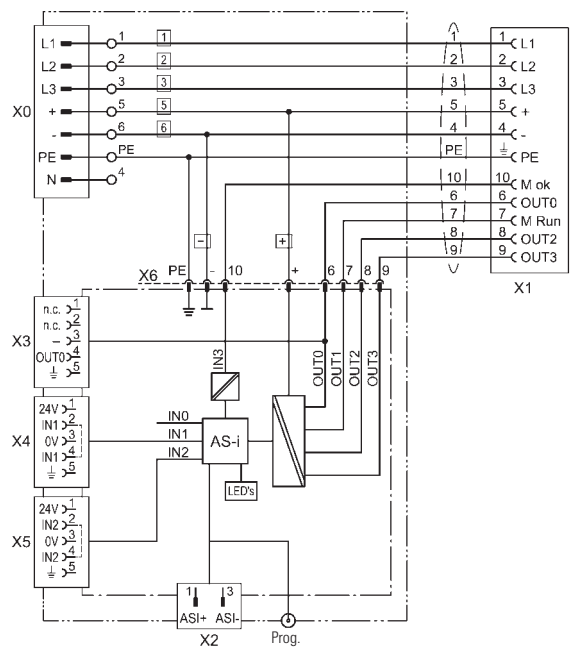
Other cable lengths and designs such as
with switch disconnector available on request

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	MOT A C 2I1O/1I3O	83.209.2120.2	5
Spare cable	Motor connection cable	available on request	
AS-i adapter	AS-i adapter M12	83.209.2201.0	5
AS-i tap line	AS-i tap line 0.3 m	83.209.2203.0	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-i 1.5 m	83.209.2205.0	1

Wiring diagram / connection

Displays / operating components
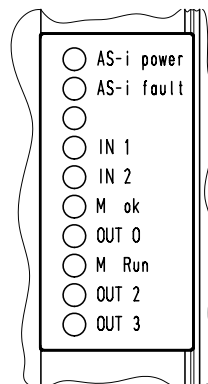
Color	Name	Meaning	I/O bit
green	AS-Interface Power	AS-Interface power okay	
red	AS-Interface fault	Fault in the AS-Interface	
yellow	IN1	Input M12	E1
yellow	IN2	Input M12	E2
yellow	M ok	Motor ready	E3
yellow	OUT0	Output M12	A0
yellow	M Run	Motor clockw.dir.	A1
yellow	OUT2		A2
yellow	OUT3		A3

Subject to technical change without prior notice

AS-i interface for remote installation

podis

Funktion

The **podis** MOT FA C 2I1O/1I3O is a AS-i sensor/actuator module on the **podis** power bus used for control and power supply of remote drives with switching and protection function and binary interface. Through pre-assembled cables, the drives are connected to easy to service **revos** BASIC connectors at the power bus. On the three free inputs, 2-wire as well as 3-wire sensors can be connected through pre-assembled M12 connection cables. The sensors are directly supplied by the module. The outpu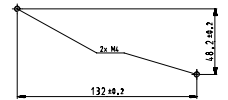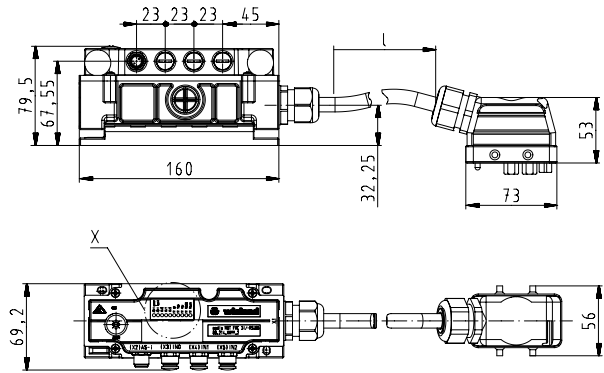t through M12 is an electronic output that can be loaded with max. 24 V DC and 0.5 A. This output A0 is available on the M12, but also on PIN 6 of the connector interface.

For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0).

An LED is available in the module cover for each channel that indicates the current switching state and the status of the inputs.

The AS-i transmission cable is connected through an M12 connector. If the AS-i flat cable is to be used, the AS-i tap line as well as the AS-i adapter must be used also. Contact to the power bus is made through insulation-piercing termination.

Features

- AS-Interface certificate
- Protection degree IP65
- Electronic cover, easy to service and pluggable
- Function display for bus, ext. auxiliary power, inputs and outputs
- Connection through insulation-piercing termination on the power bus
- Addressing terminal
- Two inputs for 2-wire and 3-wire sensors through M12 (supplied by AS-Interface)
- Outputs supplied through the flat cable
- Easy to service pluggable connection of remote drives

Technical data

General data

Slave type	Standard slave
AS-Interface specification	V2.11, single slave, ID 7FFE, 4E/4A
Number of addressable slaves	31
Addressing option	DC fem. connect.1.3 mm

Displays/operation elements

LED AS-i power	AS-i Svoltage okay; LED green
LED AS-i fault	Fault in the AS-Interface; LED red
LED IN1, IN2	Inputs E1; E2 through M12; LED yellow
LED 6 to 10	Status indication for the drive; outputs; LED yellow

Electrical data

Rated operating voltage U_N	230/400 V AC
Rated operating current I_N	16 A
Rated operating voltage U_e	24 V DC +- 20 % (19.2 V – 28.8 V)
Rated operating current I_e	max. 200 mA from AS-Interface

Input

Digital inputs (supplied through AS-Interface)	2 inputs for 2-wire or 3-wire sensors DC through M12
Digital input (supplied by 24 V ext. power bus)	1 input as motor feedback through motor cable
Supply current	max. 50 mA per initiator
Input current	typ. 5 mA
Signal level U_{HIGH}/ U_{LOW}	+15 V – +31.5 V/-3 V – +5 V
Signal delay	typ. 1 ms

Output (control signals)

Digital output on M12	1 electronic output, PNP overload and short-circuit proof
Digital outputs (through pre-assembled motor cable)	3 electronic outputs, PNP overload and short-circuit proof
Supply	24 V ext. from power bus
Output current	max. 500 mA per output
Signal delay	typ. 1 ms

Output (load circuit) — through pre-assembled motor cable

Rated output voltage	400 V AC
Rated operating current	16 A

Ambient conditions

– Ambient temperature	0 °C – +40 °C
– Storage temperature / transport	-25 °C – +60 °C/-25 °C – +70 °C

Mechanical data

Degree of protection	IP65 according to EN 60529
Protection class	class 1 according to IEC536
Protection category	3
Connection (power bus)	Insulation-piercing termination
Connection (drive)	Pluggable through **revos** BASIC
Connection of AS-i and sensors	M12 x 1 round connector
Weight	1060 g
Dimensions L x W x H	162.0 x 70.5 x 80.0 mm (without cable gland)
Mounting	Mounting plate
Installation position	any; preferably horizontal wall mount

Programming instructions — See the *podis* manual

Data bit (function through AS-Interface)	Input	Output
D0	IN0	OUT0
D1	IN1	OUT1
D2	IN2	OUT2
D3	IN3	OUT3

Parameter bit (programmable through AS-i)	Input	Output
P0	not used	
P1	not used	
P2	not used	
P3	not used	

AS-i interface for remote installation

podis®

AS-i interface *podis* MOT **FA C 3I/RS485 (MOVIMOT®)**

Ordering data

AS-i control with power supply for MOVIMOT® from SEW-EURODRIVE according to the MOVILINK® protocol,

pre-assembled with hybrid cable 4 x 2.5 + 2 x 2 x 1.0(C) sw and AMA 6 connector interface (SEW)

Description	Type	Part No.	Std. Pack
podis MOT	FA C 3I/RS485 (MOVIMOT®) 0.5 m	83.214.0506.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 1.0 m	83.214.1006.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 1.5 m	83.214.1506.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 2.0 m	83.214.2006.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 2.5 m	83.214.2506.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 3.0 m	83.214.3006.2	1

AS-i control with power supply for MOVIMOT® from SEW-EURODRIVE according to the MOVILINK® protocol,

pre-assembled with hybrid cable 4 x 2.5 + 2 x 2 x 1.0(C) sw and **revos** FLEX

Description	Type	Part No.	Std. Pack
podis MOT	FA C 3I/RS485 (MOVIMOT®) 0.5 m	83.214.0507.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 1.0 m	83.214.1007.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 1.5 m	83.214.1507.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 2.0 m	83.214.2007.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 2.5 m	83.214.2507.2	1
podis MOT	FA C 3I/RS485 (MOVIMOT®) 3.0 m	83.214.3007.2	1

Other cable lengths and designs such as with switch disconnector available on request
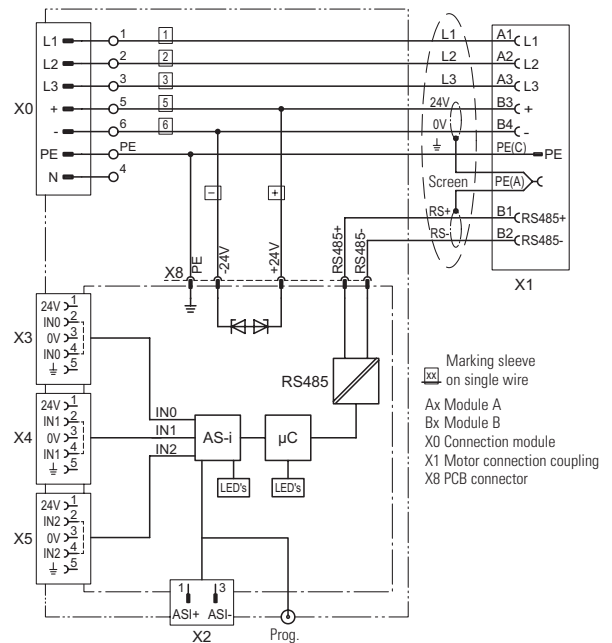
Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	MOT A C 3I/RS485 (MOVIMOT®)	83.209.2102.2	5
Spare cable	Motor connection cable	available on request	1
AS-i adapter	AS-i adapter M12	83.209.2201.0	5
AS-i tap line	AS-i tap line. 0.3 m	83.209.2203.0	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-i 1.5 m	83.209.2205.0	1

Wiring diagram / connection

Connector assignment X1 valid for 83.214.XX06.2

Marking sleeve on single wire

Ax Module A
Bx Module B
X0 Connection module
X1 Motor connection coupling
X8 PCB connector

Displays / operating components

- AS-i power
- AS-i fault
- IN 0
- IN 1
- IN 2
- M ok
- M fwd
- M rev
- M RS485
- M fault
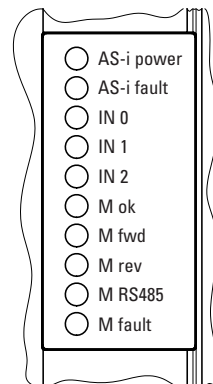
Color		Meaning	I/O bit
	yellow		
green	AS-Interface Power	AS-Interface Power okay	
red	AS-Interface fault	AS-Interface fault	
yellow	IN0	Input M12	IN0
yellow	IN1	Input M12	IN1
yellow	IN2	Input M12	IN2
yellow	M ok	Motor ready	IN3
yellow	M fwd	Motor clockw. rot.	
yellow	M rev	Motor countercl. rot.	
yellow	RS 485	RS 485	
red	M fault	Motor fault	

AS-i interface for remote installation

podis

Funktion	Technical data	
	General data	
The remote field interface **podis**MOT FA C with RS485 interface (MOVILINK® protocol) iis an AS-i actuator/sensor module on the **podis** power bus for control and power supply of SEW MOVIMOT® three-phase motors with integrated frequency converter and serial communication (RS485). The drive is controlled by cyclical operation with a 4-bit input/output process image. It is possible to select 6 fixed setpoints and 3 ramps and to change their values. Through the pre-assembled hybrid cable and **revos** connectors, the interface module is plugged in directly on the drive making it very easy to service. On the three free inputs, 2-wire as well as 3-wire sensors can be connected through pre-assembled M12 connection cables. The sensors are directly supplied by the module.	Slave type	Standard slave
	AS-Interface specification	V2.11, single slave, ID 74F0, S-7.4
	Number of addressable slaves	31
	Addressing option	DC fem. connect. 1.3 mm
	Displays/operation elements	
	LED AS-i power	AS-i voltage okay; LED green
	LED AS-i fault	Fault in the AS-Interface; LED red
	LED IN1, IN2, IN3	Inputs IN1; IN2, IN3 through M12; LED yellow
	LED 6 to 9	Status indication for the drive; interface; LED yellow
	LED 10	M Fault; LED red
For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0).	**Electrical data**	
	Rated operating voltage U_N	230/400 V AC
	Rated operating current I_N	16 A
	Rated operating voltage U_e	24 V DC +- 20 % (19.2 V – 28.8 V)
An LED is available in the module cover for each channel that indicates the current switching state and the status of the inputs.	Rated operating current I_e	max. 280 mA from AS-Interface
	Input	
	Digital inputs (supplied through ther AS-Interface)	3 inputs for 2-wire or 3-wire sensors DC through M12
The AS-i transmission cable is connected through an M12 connector. If the AS-i flat cable is to be used, the AS-i tap line as well as the AS-i adapter must be used also. Contact to the power bus is made through insulation-piercing termination.	Supply current	max. 50 mA per initiator
	Input current	typ. 5 mA
	Signal level U_{HIGH} / U_{LOW}	+15 V – +31.5 V /-3 V – +5 V
	Signal delay	Scanning time approx. 5 ms
	Output (control signals)	through pre-assembled hybrid cable
	Serial interface	RS485 (MOVILINK® protocol from SEW)
Additional information can be found in the **podis** manual.		
	Output (load circuit)	through pre-assembled hybrid cable
	Rated output voltage	400 V AC
	Rated operating current	16 A
	Ambient conditions	
	– Ambient temperature	0 °C – +40 °C
	– Storage temperature / transport	-25 °C – +60 °C / -25 °C – +70 °C
	Mechanical data	
	Degree of protection	IP65 according to EN 60529
	Protection class	class 1 according to IEC536
	Protection category	3
	Connection (power bus)	Insulation-piercing termination
	Connection (drive)	pluggable (corresponding to the drive interface)
	Connection of AS-i and sensors	M12 x 1 round connector
	Weight:	1060 g
	Dimensions L x W x H	162.0 x 70.5 x 80.0 mm (without cable gland)

Features			
	Fixation	Mounting plate	
• Protection degree IP65	Installation position	any; preferably horizontal wall mount	
• Electronic cover, easy to service and pluggable			
• Function display for bus, ext. auxiliary voltage, drive status indication, input status	**Programming instructions**	See the **podis** manual	
	Data bit (function through AS-Interface)	**Input**	**Output**
• Connection through insulation-piercing termination on the power bus	D0	IN0	OUT0
	D1	IN1	OUT1
• Addressing terminal	D2	IN2	OUT2
• Three inputs for 2-wire and 3-wire sensors through M12 (supplied by AS-Interface)	D3	IN3	OUT3
• Easy to service pluggable connection of the SEW MOVIMOT® through a pre-assembled hybrid cable and a defined connector interface **(to be considered when ordering the drive!)**	**Parameter bit** (programmable through AS-i)	See the **podis** manual Profile S-7.4	

AS-i interface for remote installation
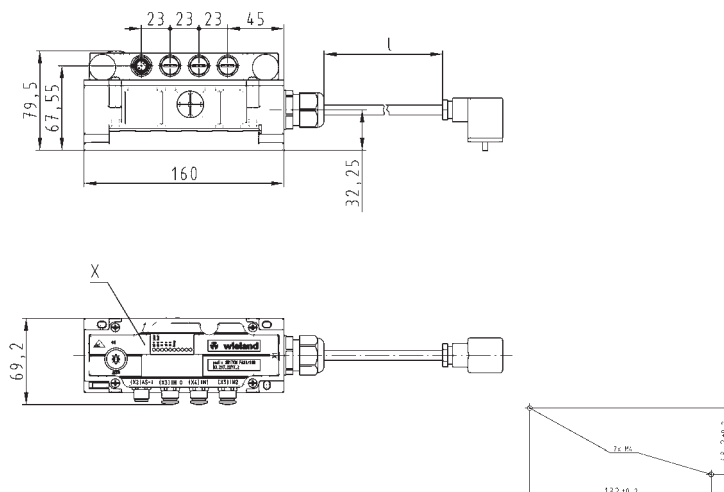
podis®

AS-i control *podis* SWITCH **FA C 3I / 1OR**

Ordering data

AS-i control for switched single-phase field devices with relay output up to 2 A; pre-assembled with cable **Ölflex** 4G1.5 mm² and valve connector, 3 pole + ground

Description	Type	Part No.	Std. Pack
podis SWITCH	FA C 3I/1OR 0.5 m	83.217.0509.2	1
podis SWITCH	FA C 3I/1OR 1.0 m	83.217.1009.2	1
podis SWITCH	FA C 3I/1OR 1.5 m	83.217.1509.2	1
podis SWITCH	FA C 3I/1OR 2.0 m	83.217.2009.2	1
podis SWITCH	FA C 3I/1OR 2.5 m	83.217.2509.2	1
podis SWITCH	FA C 3I/1OR 3.0 m	83.217.3009.2	1
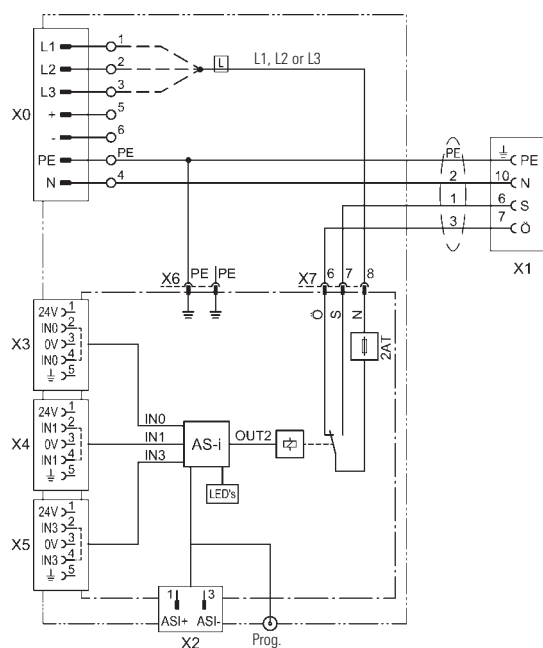
Other designs and cable lengths available on request

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	A C 3I/1OR	83.209.2104.2	5
AS-i adapter	AS-i adapter M12	83.209.2201.0	5
AS-i tap line	AS-i tap line 0.3 m	83.209.2203.0	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-I 1.5 m	83.209.2205.0	1

Wiring diagram / connection

Displays / operating components

Color	Name	Meaning	I/O bit
green	AS-Interface Power	AS-Interface power okay	
red	AS-Interface fault	Fault in the AS-Interface	
yellow	IN0	Input M12	IN0
yellow	IN1	Input M12	IN1
yellow	IN3	Input M12	IN3
yellow	Relay	Relay output	OUT2

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Subject to technical change without prior notice

AS-i interface for remote installation

podis

Function	Technical data	
	General data	
The **podis** SWITCH FA C 3I/1OR is an AS-i actuator module on the **podis** power bus with a relay output used for the control of single-phase loads. Through a pre-assembled connection cable with molded connector, the interface module is connected to the field device making it very easy to service. Field devices can be switched through the relay output up to a switching capacity of 300 VA, max. 2 A (AC15).	Slave type	A/B slave
	AS-Interface specification	V2.11, ID 6A7E, 3E/1A
	Number of addressable slaves	62
	Addressing option	DC fem. connect. 1.3 mm
	Displays/operating components	
	LED AS-i power	AS-i voltage okay; LED green
For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0).	LED AS-i fault	Fault in the AS-Interface; LED red
	LED IN0; IN1; IN2	Inputs IN0; IN1; IN3 through M12; LED yellow
	LED Relay	Status indicators for relay output OUT2 through pre-assembled cable; LED yellow
An LED is available for each channel that is visible at the module top and indicates the status of the connected inputs as well as the relay output.		
	Electrical data	
	Rated operating voltage U_N	230 V AC
	Network frequency, input f_N	50 Hz +- 10 % (45 Hz – 55 Hz)
The connection module is used to supply the AS-I actuator modules, but also for power supply to the field devices. The relay output is not applied in the connection module at delivery.	Min. AS-i voltage U_{AS-i}	min. 26.5 V
	Rated operating current I_e	max. 250 mA from AS-Interface
	Input	
	Digital inputs	3 inputs IN0;IN1; IN3 through M12 (supplied by AS-Interface)
The AS-i transmission cable is connected through an M12 connector. If the AS-i flat cable is to be used, the AS-i tap line as well as the AS-i adapter must be used also. Contact to the power bus is made through insulation-piercing termination.	Input current	typ. 5 mA
	Supply current	max. 50 mA per initiator
	Signal level U_{HIGH}/U_{LOW}	+15 V – +31.5 V /-3 V – +5 V
	Signal delay	typ. 1 ms
Additional information can be found in the **podis** manual.	**Output**	through pre-assembled consumer cable
	Relay output	1 relay output through pre-assembled cable
	Protection	Fuse 5 x 20; 2 A (slow blow); inside the electronics cover
	Supply	230 V AC from the power bus
	Output current	max. 2 A per relay
	Switching capacity AC15 / AC1 (230 V AC)	300 VA / 1500 VA
	Signal delay	approx. 10 ms
	Simultaneity	100 %
	Ambient conditions	
	– Ambient temperature	0 °C – +40 °C
	– Storage temperature / transport	-25 °C – +60 °C / -25 °C – +70 °C
	Mechanical data	
	Degree of protection	IP65 according to EN 60529
	Protection class	class 1 according to IEC536
	Protection category	3
	Overvoltage category	III
	Connection (power bus)	Insulation-piercing termination
	Connection (load)	Pluggable through pre-assembled cable
	Weight:	700 g
	Dimensions L x W x H	162.0 x 70.5 x 80.0 mm (without cable gland)
	Fixation	Mounting plate
	Installation position	any; preferably horizontal wall mount

Features

- Protection degree IP65
- Interruption-free connection through insulation-piercing termination on the power bus
- Electronic cover, easy to service and exchangable
- Function and status indication for bus, inputs and outputs
- Addressing terminal
- Relay output, single-phase up to 2 A
- Pre-assembled consumer line with connector as required (solenoids, valves, etc.)

Programming instructions	See the **podis** manual	
Data bit (function through AS-Interface)	**Input**	**Output**
D0	IN0	–
D1	IN1	–
D2	–	OUT2
D3	IN3	–
Parameter bit (programmable through AS-i)	**Input**	**Output**
P0	not used	
P1	not used	
P2	not used	
P3	not used	

# AS-i interface for remote installation

podis®

AS-i interface *podis* MOT FAIC – / 1I4O; AS-i bus signal from the *podis* flat cable

Ordering data

AS-i control with power supply for drives with integrated frequency converter or starter and binary interface, AS-i bus signal from the *podis* flat cable, pre-assembled with cable **Ölflex Classic** 11 x 1.5 mm^2 and *revos* BASIC

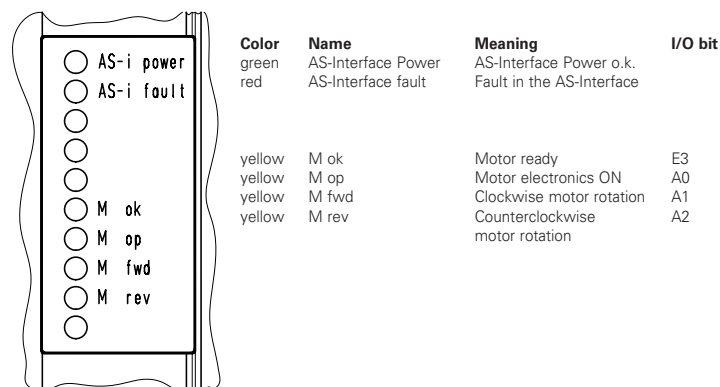| Description	Type	Part No.	Std. Pack
podis MOT	FAIC –/1I4O 0.5 m	83.219.0501.2	
podis MOT	FAIC –/1I4O 1.0 m	83.219.1001.2	1
podis MOT	FAIC –/1I4O 1.5 m	83.219.1501.2	1
podis MOT	FAIC –/1I4O 2.0 m	83.219.2001.2	1
podis MOT	FAIC –/1I4O 2.5 m	83.219.2501.2	1
podis MOT	FAIC –/1I4O 3.0 m	83.219.3001.2	1
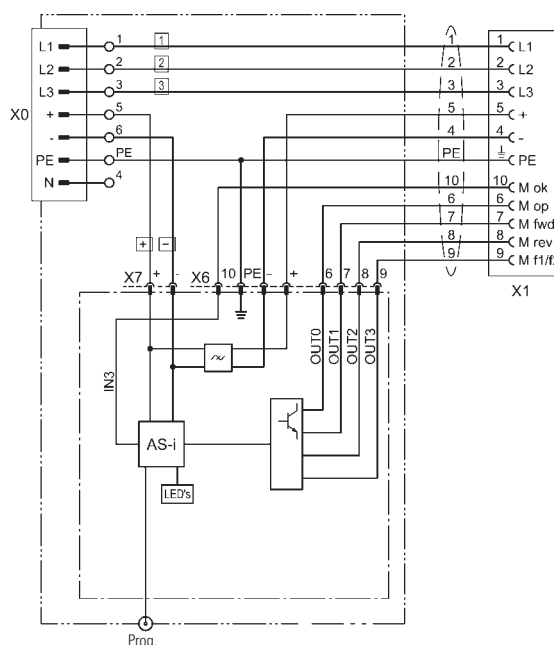
Other cable lengths and designs such as
with switch disconnector available on request

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	MOT A C –/1I4O	83.209.2105.2	5
Spare cable	Motor connection cable	available on request	1
AS-i adapter	AS-i adapter M12	83.209.2201.0	5
AS-i tap line	AS-i tap line 0.3 m	83.209.2203.0	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-i 1.5 m	83.209.2205.0	1

Wiring diagram / connection

Displays / operating components

Color	Name	Meaning	I/O bit
green	AS-Interface Power	AS-Interface Power o.k.	
red	AS-Interface fault	Fault in the AS-Interface	
yellow	M ok	Motor ready	E3
yellow	M op	Motor electronics ON	A0
yellow	M fwd	Clockwise motor rotation	A1
yellow	M rev	Counterclockwise motor rotation	A2

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AS-i interface for remote installation
podis

Function	Technical data	
	General data	
The ***podis*** MOT FAIC –/1I4O is an AS-i actuator module on the ***podis*** power bus used for control and power supply of remote drives with binary interfaces. Through pre-assembled cables, the drives are connected to easy to service ***revos*** BASIC connectors at the power bus. In addition to 400 V AC power, the AS-i signal is also carried in the power bus and tapped off through insulation-piercing termination.	Slave type	Slave type
	AS-Interface specification	V2.11, single slave, ID AFFE, 1E/4A
	Number of addressable slaves	31
	Connection technology	AS-i from the ***podis*** flat cable
	Addressing option	DC fem. connect. 1.3 mm
	Displays / operating components	
	LED AS-i power	AS-i voltage okay; LED green
For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0).	LED AS-i fault	Fault in the AS-Interface; LED red
	LED IN0, IN1, IN2	Inputs IN0; IN1; IN2 through M12; LED yellow
	LED 6 to 10	Status indication for the drive; LED yellow
An LED is available in the module cover for each channel that indicates the current switching state and the status of the inputs.	**Electrical data**	
	Rated operating voltage U_N	230/400 V AC
	Rated operating current I_N	16 A
	Rated operating voltage U_e	24 V DC +- 20 % (19.2 V – 28.8 V)
	Rated operating current I_e	max. 200 mA from AS-Interface
	Input	
	Digital input	1 input as motor feedback through motor cable
	Input current	typ. 5 mA
	Signal level U_{HIGH}/ U_{LOW}	+15 V – +31.5 V/-3 V – +5 V
	Signal delay	typ. 1 ms
	Output (control signals)	through pre-assembled motor cable
	Digital outputs	4 electronic outputs, PNP overload and short-circuit proof
	Supply	24 V from AS-i
	Output current	max. 180 mA
	Signal delay	typ. 1 ms
	Output (load circuit)	through pre-assembled motor cable
	Rated output voltage	230/400 V AC
	Rated operating current	16 A
	Ambient conditions	
	– Ambient temperature	0 °C – +40 °C
	– Storage temperature / transport	-25 °C – +60 °C/-25 °C – +70 °C
	Mechanical data	
	Degree of protection	IP65 according to EN 60529
	Protection class	class 1 according to IEC536
	Connection (power bus)	Insulation-piercing termination
	Connection (drive)	Pluggable through ***revos*** BASIC
	Connection of AS-i and sensors	M12 x 1 round connector
	Weight:	1060 g
	Dimensions L x W x H	162 x 60 x 80 mm (without cable gland)
	Fixation	Mounting plate
	Installation position	any; preferably horizontal wall mount

Features

- Protection degree IP65
- Electronic cover, easy to service and pluggable
- Function display for bus, ext. auxiliary power, inputs and outputs
- Connection through insulation-piercing termination on the power bus
- Addressing terminal
- AS-Interface from the ***podis*** flat cable
- Easy to service pluggable connection of remote drives

Programming instructions	See the ***podis*** manual	
Data bit (function through AS-Interface)	**Input**	**Output**
D0	–	OUT0
D1	–	OUT1
D2	–	OUT2
D3	IN3	OUT3
Parameter bit (programmable through AS-i)	**Input**	**Output**
P0	not used	
P1	not used	
P2	not used	
P3	not used	

AS-i interface for remote installation

podis®

AS-i control *podis* SWITCH **FAIC -/2I2OR**; AS-i bus signal from the *podis* flat cable

Ordering data

AS-i control with 2 relay outputs through *revos* MINI connectors,
AS-i bus signal from the *podis* flat cable

Description	Type	Part No.	Std. Pack
podis SWITCH	FAIC -/2I2OR	83.213.0004.2	1
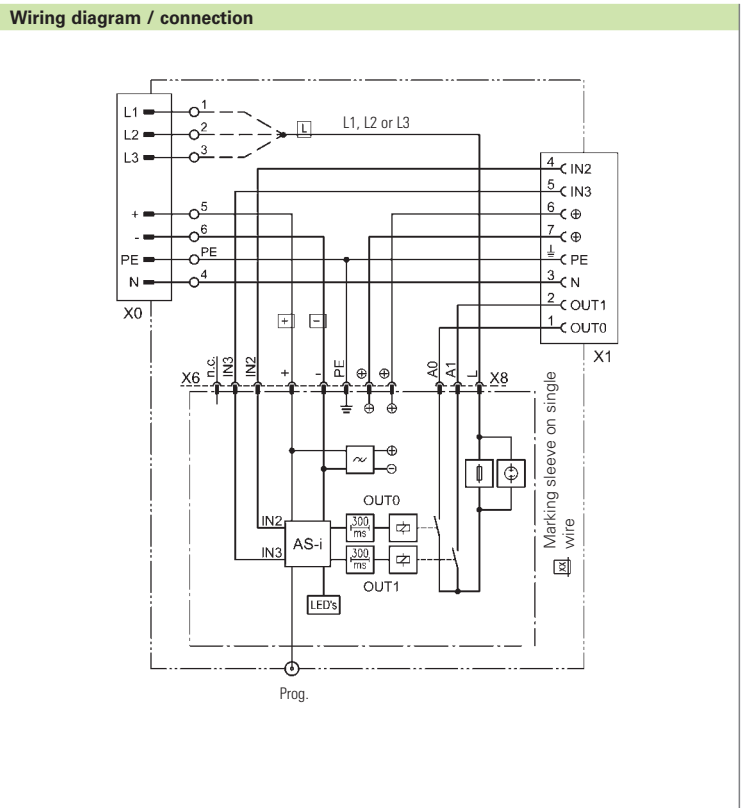
Additional designs available on request

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	SWITCH AIC -/2I2OR	83.209.2101.2	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-i 1.5 m	83.209.2205.0	1

Wiring diagram / connection

Displays / operating components

Color	Name	Meaning	I/O bit
green	AS-Interface Power	AS-Interface power okay	
red	AS-Interface fault	Fault in the AS-Interface	
yellow	IN2	Input through X1	E2
yellow	IN3	Input through X1	E3
yellow	OUT0	Output through X1	A0
yellow	OUT1	Output through X1	A1

AS-i power
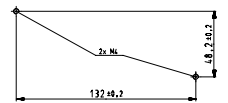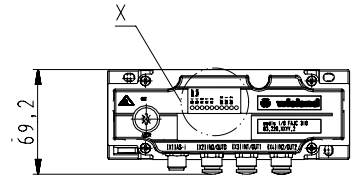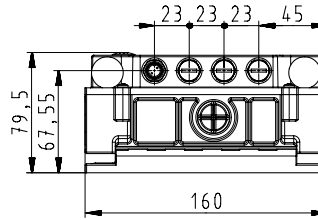AS-i fault
IN 2
IN 3
OUT 0
OUT I

AS-i interface for remote installation

podis

Function

The **podis** SWITCH FA C -/2I2OR is an AS-i actuator module on the **podis** power bus with two relay outputs for control of single-phase loads. Two inputs are available for feedback purposes. The field devices are connected through the 8 pole **revos** MINI connector.
The outputs are relay outputs that can be loaded with max. 230 V AC and 2 A.

For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0).

An LED is available in the module cover for each channel that indicates the current switching state and the status of the inputs.

In the **podis** CON flat cable, the AS-i bus signal is carried along with the 400 V AC power, and tapped off through insulation-piercing termination.

The connection module is used to supply the AS-i actuator module and also serves for power supply to the field devices.

The relays are applied on L1 on delivery.

Features

- Protection degree IP65
- Electronic cover, easy to service and pluggable or replaceable
- Function indicator for bus, inputs and relay outputs
- Connection through insulation-piercing termination on the power bus
- Addressing terminal
- AS-Interface bus signal from the flat cable
- Outputs supplied through the flat cable
- Easy to service pluggable connection of single-phase loads (solenoids, valves, etc.) up to max. 2 A

Technical data

General data

Slave type	A/B slave
AS-Interface specification	V2.11, ID BA7E, 2E/2A
Number of addressable slaves	62
Connection technology	AS-i Bussignal bus signal from the **podis** flat cable
Addressing option	DC fem. connect.1.3 mm

Displays / operating components

LED AS-i power	AS-i voltage okay; LED green
LED AS-i fault	Fault in the AS-Interface; LED red
LED IN2; IN3	Inputs IN2; IN3 through **revos** MINI; LED yellow
LED OUT0; OUT1	Status indicators for relay outputs OUT0; OUT1 through **revos** MINI; LED yellow

Electrical data

Rated operating voltage U_N	230 V AC
Network frequency, input f_N	50 Hz +- 10 % (45 Hz – 55 Hz)
Min. AS-i voltage U_{AS-i}	min. 26.5 V
Rated operating current I_e	max. 200 mA from the AS-Interface

Input

Digital inputs (supplied through the AS-Interface)	2 inputs IN2; IN3 through **revos** MINI (supplied through the AS-Interface)
Input current	typ. 5 mA
Signal level U_{HIGH}/U_{LOW}	+15 V – +31.5 V/-3 V – +5 V
Signal delay	typ. 1 ms

Output

Relay output	2 relay outputs through **revos** MINI
Protection	Fuse 5x20; 2 A (slow blow)
Supply	230 V AC from the power bus
Output current	max. 1 A per relay
Switching capacity AC15/AC1 (230 V AC)	300 VA/1500 VA
Power ON delay	typ. 300 ms
Simultaneity	100 %

Ambient conditions

– Ambient temperature	0 °C – +40 °C
– Storage temperature / transport	-25 °C – +60 °C/-25 °C – +70 °C

Mechanical data

Degree of protection	IP65 according to EN 60529
Protection class	class 1 according to IEC536
Protection category	3
Overvoltage category	III
Connection (power bus)	Insulation-piercing termination
Connection (load)	Pluggable through **revos** MINI
Weight:	484 g
Dimensions L x W x H	194 x 60.0 x 79.5 mm (with **revos** MINI)
Fixation	Mounting plate
Installation position	any; preferably horizontal wall mount

Programming instructions

See the **podis** manual

Data bit (function through AS-Interface)	Input	Output
D0	–	OUT0
D1	–	OUT1
D2	IN2	–
D3	IN3	–

Parameter bit (programmable through AS-i)	Input	Output
P0	not used	
P1	not used	
P2	not used	
P3	not used	

AS-i I/O module for remote installation

podis®
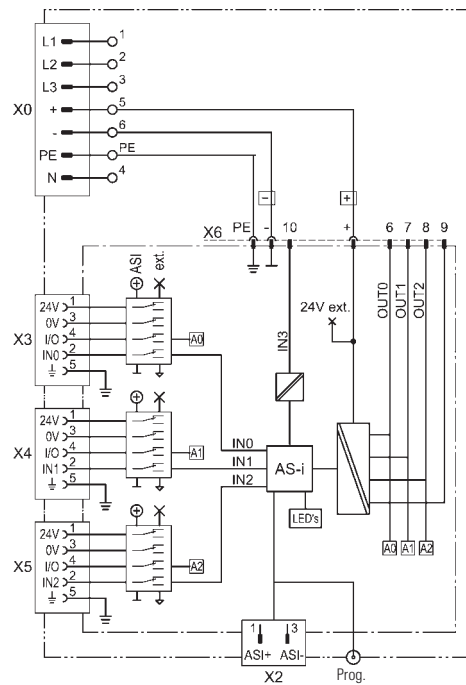
AS-i interface *podis* I/O FAJC 3IO

Approvals:

Ordering data

podis ELECTRONIC I/O module with 3 inputs/outputs, selectable through internal jumper, with M12 round connector

Description	Type	Part No.	Std. Pack
podis I/O	FAJC 3IO	83.220.0000.2	1

Wiring diagram / connection

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	I/O AJC 3IO	83.209.2100.2	5
AS-i adapter	AS-i adapter M12	83.209.2201.0	5
AS-i tap line	AS-i tap line 0.3 m	83.209.2203.0	5
AS-i handheld	AS-i PPG 1	83.209.2204.0	1
Programming cable	AS-i 1.5 m	83.209.2205.0	1

Displays / operating components
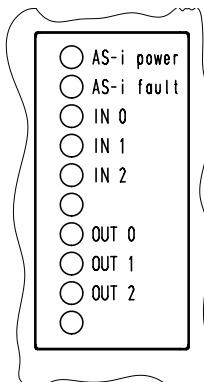
Color	Name	Meaning	I/O bit
green	AS-Interface Power	AS-Interface power okay	
red	AS-Interface fault	Fault in the AS-Interface	
yellow	IN0	Input M12	E0
yellow	IN1	Input M12	E1
yellow	IN2	Input M12	E2
yellow	OUT0	Output M12	A0
yellow	OUT1	Output M12	A1
yellow	OUT2	Output M12	A2

Subject to technical change without prior notice

AS-i I/O module for remote installation
podis

Function	Technical data	
	General data	
The AS-i sensor/actuator module **podis** I/O FAJC 3IO is a **podis** ELECTRONIC module on the **podis** power bus with 3 inputs (PNP), selectable to electronic outputs via jumper. On the inputs, 2-wire as well as 3-wire sensors can be connected through pre-assembled M12 connection cables. The sensors are supplied by the AS-Interface, the actuators by the **podis** flat cable.	Slave type	Standard slave
	AS-Interface specification	V2.11, single slave, ID 7FFE, 4E / 4A
	Number of addressable slaves	31
	Addressing option	DC fem. connect. 1.3 mm
	Displays / operating components	
For pre-addressing purposes, the module can be connected with the AS-i programming cable (83.209.2205.0) directly to the AS-i handheld programming device (83.209.2204.0).	LED AS-i power	AS-i voltage okay; LED green
	LED AS-i fault	Fault in the AS-Interface; LED red
	LED IN0, IN1, IN2	Inputs E0; E1; E2 through M12; LED yellow
	LED 7 to 9	Outputs A0; A1; A2 through M12; LED yellow
An LED is available in the module cover for each channel that indicates the current switching state and the status of the inputs.		
	Electrical data	
	Rated operating voltage U_e	24 V DC +- 20 % (19.2 V – 28.8 V)
	Rated operating current I_e	max. 200 mA from AS-Interface
The AS-i transmission cable is connected through an M12 connector. If the AS-i flat cable is to be used, the AS-i tap line as well as the AS-i adapter must also be used. Contact to the power bus is made through insulation-piercing termination.		
	Input	
	Digital inputs (supplied through the AS-Interface)	3 inputs for 2-wire or 3-wire sensors DC through M12
	Supply current	max. 50 mA per initiator
	Input current	typ. 5 mA
	Signal level U_{HIGH}/U_{LOW}	+15 V – +31.5 V /-3 V – +5 V
	Signal delay	typ. 1 ms
	Output	
	Digital outputs	3 electronic outputs, PNP overload and short-circuit proof
	Supply	24 V ext. from power bus
	Output current	max. 500 mA per output
	Signal delay	typ. 1 ms
	Environmental conditions	
	– Ambient temperature	0 °C – +40 °C
	– Storage temperature / transport	-25 °C – +60 °C / -25 °C – +70 °C
	Mechanical data	
	Degree of protection	IP65 according to EN 60529
	Protection class	class 1 according to IEC536
	Protection category	3
	Connection (power bus)	Insulation-piercing termination
	Connection of AS-i and sensors/actuators	M12 x 1 round connector
	Weight:	470 g
	Dimensions L x W x H	162.0 x 70.5 x 80.0 mm
	Fixation	Mounting plate
	Installation position	any; preferably horizontal wall mount

Programming instructions	See the **podis** manual	
Data bit (function through AS-Interface)	**Input**	**Output**
D0	IN0	OUT0
D1	IN1	OUT1
D2	IN2	OUT2
D3	not used	
Parameter bit (programmable through AS-i)	**Input**	**Output**
P0	not used	
P1	not used	
P2	not used	
P3	not used	

Features
- AS-Interface certificate
- Protection degree IP65
- Electronic cover, easy to service and pluggable
- Function display for bus, ext. auxiliary power, inputs and outputs
- Addressing terminal
- Connections through M12 round connectors
- Outputs supplied through the flat cable
- Outputs supplied by the AS-i
- Inputs for 2-wire and 3-wire sensors through M12
- Up to 3 inputs or outputs through M12

PROFIBUS-DP interface for remote installation
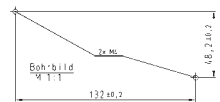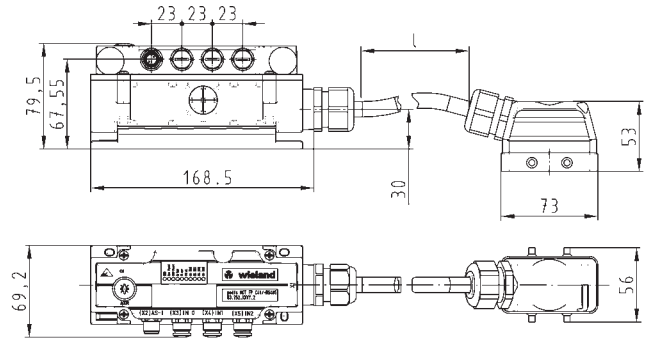
podis®

PROFIBUS-DP interface *podis*MOT **FP C 4I / - RS485 (MOVIMOT®)**

Ordering data

PROFIBUS-DP control with power supply for MOVIMOT® from SEW-EURODRIVE according to the MOVILINK® protocol,
pre-assembled with hybrid cable 4 x 2.5 + 2 x 2 x 1.0(C) sw and AMA 6 connector interface (SEW)

Description	Type	Part No.	Std. Pack
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 0.5 m	83.252.0506.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 1.0 m	83.252.1006.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 1.5 m	83.252.1506.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 2.0 m	83.252.2006.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 2.5 m	83.252.2506.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 3.0 m	83.252.3006.2	1

PROFIBUS-DP control with power supply for MOVIMOT® from SEW-EURODRIVE according to the MOVILINK® protocol,
pre-assembled with hybrid cable 4 x 2.5 + 2 x 2 x 1,0(C) sw and **revos**FLEX industrial multipole connector

Description	Type	Part No.	Std. Pack
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 0.5 m	83.252.0507.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 1.0 m	83.252.1007.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 1.5 m	83.252.1507.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 2.0 m	83.252.2007.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 2.5 m	83.252.2507.2	1
*podis*MOT	FP C 4I/RS485 (MOVIMOT®) 3.0 m	83.252.3007.2	1

Other manufacturer-specific protocols, cable lengths and designs such as with switch connector are available on request
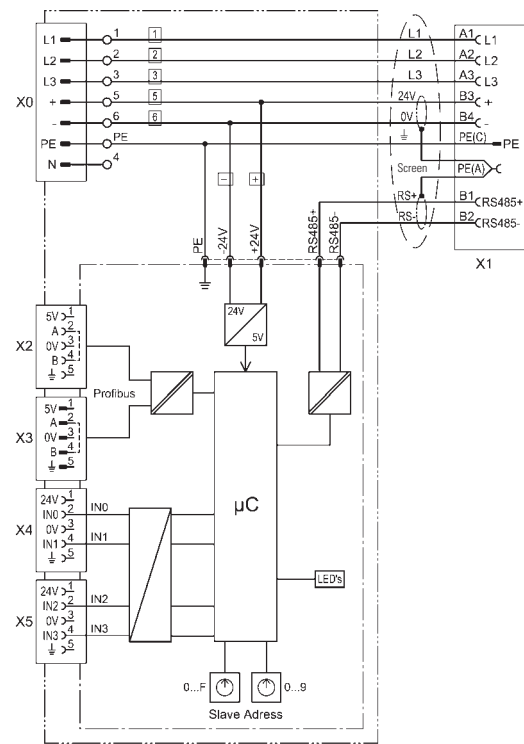

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	MOT P C 4I/RS485 (MOVIMOT®)	83.209.2110.2	5
Spare cable	Motor connection cable	available on request	
M12 T-junction	M12/2M12 T-junction		
	A-coded for sensor cable 0.3 m	83.408.0310.0	10

Wiring diagram / connection

Connector assignment X1 valid for 83.252.XX06.2

Displays / operating components

Color	Name	Meaning	I/O bit
green	RUN	Bus operating	
red	BUS fault	Bus error	
yellow	SYS Fault	No connection to the MOVIMOT	
yellow	M fwd	Motor clockw.dir.	
yellow	M rev	Motor countercl. rot.	
yellow	Fu ok	Motor ready	
yellow	IN 0	Input M12	Bit 1
yellow	IN 1	Input M12	Bit 0
yellow	IN 2	Input M12	Bit 3
yellow	IN 3	Input M12	Bit 2

Subject to technical change without prior notice

PROFIBUS-DP interface for remote installation

podis

Function	Technical data	
	General data	
The remote PROFIBUS-DP interface **podis**MOT FP C makes it possible to connect SEW MOVIMOT® motors to the **podis** power bus and the PROFIBUS DP. The **podis**MOT interface modules maximize the efficiency of the connection of the drives to the power network, the control voltage and the fieldbus.	PROFIBUS protocol version	PROFIBUS-DP
	Bus connection technology	2 x M12 (PB-In; PB-Out)
	Bus connection technology	max. 12 MBaud
	Address setting	max. 125 (selectable with rotary switch)
	Displays / operating components	
podisMOT and MOVIMOT® communicate with one another through the electrically isolated RS485 interface. The MOVILINK® profile from SEW is used as the protocol.	LED RUN	Status indication; LED green
	LED Bus fault	Bus error; LED red
	LED 3 bis 6	Status indication for the drive; interface; LED yellow
	LED IN1, IN2, IN3; IN4	Inputs IN1; IN2, IN3, IN4 through M12; LED yellow
Power, control voltage and communication are combined and fed to the drive in a hybrid cable that is pre-assembled with a pluggable connector.	**Electrical data**	
	Rated operating voltage U_N	230/400 V AC
	Rated operating current I_N	16 A
	Rated operating voltage U_e	24 V DC +- 20 % (19.2 V – 28.8 V)
Four 2-wire or 3-wire sensors can be connected to the M12 connectors	Rated operating current I_e	< 150 mA (electronics supply)
	Input	
The **podis**ELECTRONIC module is particularly suitable for use under rough conditions in the field. LEDs are available on top of the module that indicate the current switching states.	Digital inputs	4 inputs for 2-wire or 3-wire sensors
	Supply current	max. 50 mA per initiator
	Input current	typ. 5 mA
	Signal level U_{HIGH}/U_{LOW}	+15 V – +31.5 V/-3 V – +5 V
	Initiator cable length	max. 5 m
Additional information can be found in the **podis** manual.		
	Output (control signals)	through pre-assembled hybrid cable
	Serial interface	RS485 (MOVILINK® protocol from SEW)
	Output (load circuit)	through pre-assembled hybrid cable
	Rated output voltage	400 V AC
	Rated operating current	16 A
	Ambient conditions	
	– Ambient temperature	0 °C – +40 °C
	– Storage temperature / transport	-25 °C – +60 °C/-25 °C – +70 °C
	Mechanical data	
	Degree of protection	IP65 according to EN 60529
	Protection class	class 1 according to IEC536
	Protection category	3
	Connection (power bus)	Insulation-piercing termination
	Connection (drive)	Pluggable through **revos**BASIC (ASAx)
	Connection of PROFIBUS DP and sensors	M12 x 1 round connector
	Weight:	1060 g
	Dimensions L x W x H	162.0 x 70.5 x 80.0 mm (without cable gland)
	Fixation	Mounting plate
	Installation position	any; preferably horizontal wall mount
	Programming instructions	See the **podis** manual

Features

- Protection degree IP65
- Electronic cover, easy to service and pluggable
- Function display for bus, ext. auxiliary voltage, drive status indication, input status
- Connection through insulation-piercing termination on the power bus
- Addressing terminal
- Four inputs for 2-wire and 3-wire sensors through 2 x M12
- Easy to service pluggable connection of the SEW MOVIMOT® through a pre-assembled hybrid cable and a defined connector interface **(to be considered when ordering the drive!)**
- PROFIBUS-DP ddress setting through 2 addressing switches

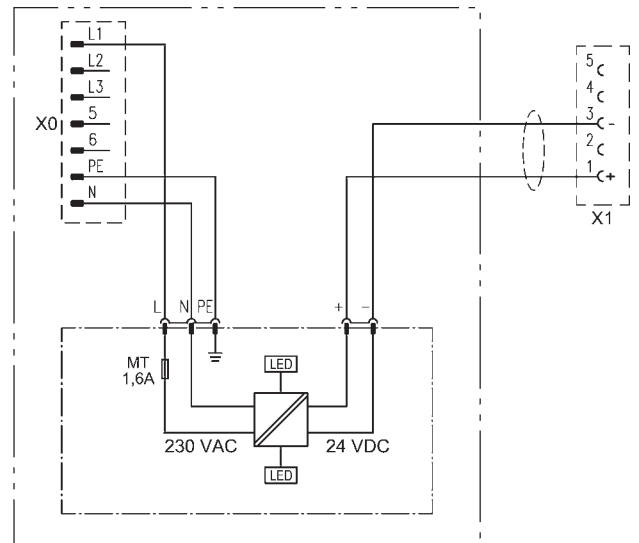# Switch-mode power supply units for remote installation
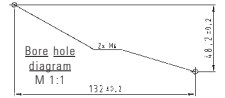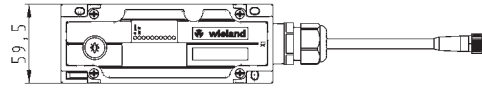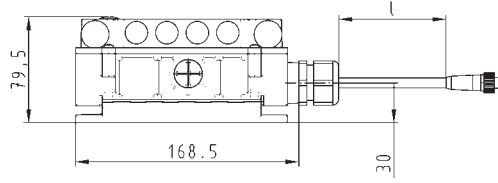
podis®

Switch-mode power supply unit PS **24 V / 0.8 A**

Ordering data

Remote switch-mode power supply unit, single-phase, 24 V / 0.8 A pre-assembled

Description	Type	Part No.	Std. Pack
Power supply unit 24 V *podis* PS 24 V/0.8 A 1.0 m		83.251.1099.2	1

Wiring diagram / connection

Accessories / spare parts

Description	Type	Part No.	Std. Pack
Electronic module	PS 24 V/0.8 A	83.209.2108.2	5
Spare cable		available on request	1

Displays / operating components
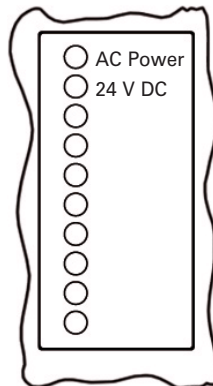
Color	Name	Meaning
green	AC Power	230 V supply available
green	24 V DC	24 V DC available

▼ **wieland**

Switch-mode power supply units for remote installation

podis

Function		
	Technical data	

<table>
<tr><td rowspan="18" valign="top">

In wide-area networks the distance between the control cabinet and the modules in the field can be quite large. With the **podis** power supply unit, the 24 V auxiliary voltage is generated remotely near the field device. With an initial current of 0.8 A, several remote field devices can be supplied with auxiliary voltage. The power supply unit is fed by the **podis** power bus.

The SELF output circuit is electronically protected against overload and long-term short circuit.

Through an M12 connector, the auxiliary voltage is simply connected to the remote field devices.

The remote **podis**PS ower supply unit is designed in a housing with protection degree IP65 suitable for use in the field.

LEDs are available on top of the module that indicate the current states.

</td></tr>
</table>

General data	
Type	24 V DC power supply unit
Displays / operating components	
LED AC Power	Input voltage available; LED green
LED 24V DC	Indicator light24 V DC; LED green
Electrical data	
Rated operating voltage U_N	230 V AC
Input voltage range	65 – 264V AC
Rated operating current I_N	200 mA
Network frequency, input f_N	47Hz – 63Hz
Protection	Fine fuse 5 x 20 mm
Output	
Output voltage U_A	24 V DC +/- 3%
Output current I_A	0.8 A
Power output	19.2 W
Current limitation	1.0 A
Mains buffering	100 ms at 230 V
Residual ripple	<100 mV AC (SS)
Network control	90 – 264 V AC
Load control	0 – 0.8 A DC
Environmental conditions	
- Environmental conditions	Industrial atmosphere
- Ambient temperature	0°C – +40°C
- Storage temperature / transport	-25 °C – +60 °C /-25 °C – +70 °C
Mechanical data	
Degree of protection	IP65 according to EN 60529
Protection class	Class II
Protection category	3
Connection (power bus)	Insulation-piercing termination
Connection (load output)	Pluggable through M12 round connectors
Weight:	490 g
Dimensions L x W xH	162.0 x 60 x 80.0 mm (without cable gland)
Fixation	Mounting plate
Installation position	any; preferably horizontal wall mount

Features

- Remote generation of 24 V auxiliary voltage
- Up to 0.8 A load current
- Protection degree IP65
- LEDs for input and output voltage indication
- Electronic cover, easy to service and pluggable
- Housing floor used for connection to the **podis** power bus through insulation-piercing termination

System components and accessories

podis®
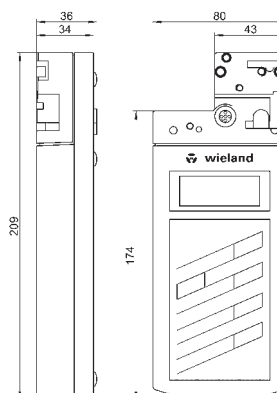
AS-i handheld programming device PPG 1

Ordering data

Device for addressing AS interface sensors, actuators and round cable modules. Mechanical contacting is performed through the M12 connector. AS-i modules are connected to the addressing device with the programming cable AS-i Prog 1.5 m. This addressing device can be used to address all customary AS-i modules (including devices of the V2.1profile).

Description	Type	Part No.	Std. Pack
AS-i handheld	AS-i PPG1	83.209.2204.0	1

Accessories

AS-i programming cable	AS-i Prog 1.5 m	83.209.2205.0	1

Displays / operating components

Display

Key „↑"	⇨ Increment the slave address
Key „MODE"	⇨ Set the operating mode
Key „↓"	⇨ Decrement the slave address
Key „PRG"	⇨ Program the new slave address
Key „ADR"	⇨ Read the slave address/power ON

Operation

The device is switched on by pressing the "ADR" key. It will switch off automatically after approx. one minute if no action is taken.
- When the "ADR" key is pressed the current slave address appears on the display.
- With the keys "↑" and "↓" the address that is to be programmed can be called up from the address ring (i. e. 31B, 0 – 31, 0 – 31A, 0 – 31B, 0.1).
- Pressing the keys briefly enables browsing of the pages one after the other. Pressing the keys longer causes continuous scrolling (0.5 s per address).
- When the "PRG" key is pressed the new address is loaded into the slave.
- The address is programmed correctly and displayed automatically after approx. 0.5 s.
- If the keys "ADR" and "PRG" are pressed longer simultaneously, address 0 will be programmed automatically into the slave.
- Other key combinations do not trigger an action.
- By pressing the "MODE" key, the operating modes are switched over: addressing mode; read the ID code; read the IO code; display/write parameters; read/write data; display the peripheral fault flag.

Function

The AS-i PPG1 is a compact device for addressing AS-Interface slaves (sensors, actuators and interface modules).
Mechanical connection is performed with the universal connection adapter and the AS-i programming cable AS-i Prog.
With the programming device all *podis* ELECTRONIC interface modules with AS-Interface slave can be addressed.

Display:
The LCD display shows the address, the mode or an error code.

Error messages:
F1: AS-Interface overload
F2: Slave not found
F3: Programming error
F4: Target address in use
F5: Address 0 in use
F6: Standard slave found instead of advanced slave
F7: Advanced slave found instead of standard slave
F8: Reception error
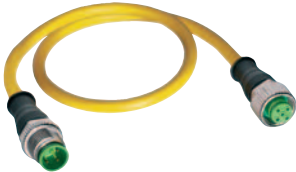**LOBAT**= Charge battery !

System components and accessories

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Features	Technical data	
	General data	
• Determination of the slave address	Operating mode	Pluggable charger 230 V AC, included with module
• Assign and check a new address		
• The slave connection is short-circuit and overload proof	**Interface**	
	Interface type	AS-i, short-circuit and overload proof
• Addressing or programming of a maximum of 62 slaves (A/B slaves)		
• Operation on the bus possible	**Displays / operating components**	
• Mode key for switching between the various operation modes	Display	LCD display
	Keyboard	Sealed keypad, 5 keys
	Electrical data	
	Operating time	8 h or > 250 read/write operations with fully charged battery
	Power supply	Battery operation; only use the delivered charger for charging the device (charging time approx. 14 h)
	Ambient conditions	
	– Ambient temperature	-0 °C – 40 °C
	– Storage temperature	-20 °C – 40 °C
	Mechanical data	
	Degree of protection	IP20 according to EN 60529
	Weight	approx. 275 g

System components and accessories

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	Description	Type	Part No.	Std. Pack
	Programming cable AS-i 1.5 m	AS-i Prog. 1.5 m	83.209.2205.0	1
	Connection cable module/handheld programming device			
	Connection: M12 for programming device and connector			
	for the addressing terminal on the ***podis*** AS-Interface			
	module			
	AS-i tap-off M12	AS-i ABGRIFF M12	83.209.2201.0	5
	Description for use as tap-off distributor or connector;			
	re-usable insulation-piercing technology			
	according to IEC 68 and DIN 41611.			
		AS-i Stichleitung	83.209.2203.0	5
	Connection cable AS-i M12			
	Description pre-assembled connection cable AS-i			
	Length 0.3 meters with 2xM12			
	(female, male)			
	PROFIBUS DP connector with terminating resistor M12	DP ABSCH M12	08.000.0230.0	1

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M12 connection cables

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Halogen-free and flame-retardant M12 connection cables for normal applications with self-securing screw cap/coupling, cable material PUR, protection degree IP67, -25 to 80 °C ambient temperature

Description	Type	Part No.	Std. Pack
M12 T-junction; A-coded			
Angled male connector on 2 x angled female connectors;			
4 pole; for sensor cables			
Cable length			
0.3 m	RVS SW12 BT12 03	83.408.0310.0	10
M12 connection cable; A-coded			
M12 angled male connector on free end;			
4 pole; for sensor cables			
Cable length			
0.5 m	RVS SW12 – 05	83.407.0510.0	10
1.0 m	RVS SW12 – 10	83.407.1010.0	10
2.0 m	RVS SW12 – 20	83.407.2010.0	10
3.0 m	RVS SW12 – 30	83.407.3010.0	10
5.0 m	RVS SW12 – 50	83.407.5010.0	10
7.0 m	RVS SW12 – 70	83.407.7010.0	10
10.0 m	RVS SW12 – 100	83.407.9910.0	10
M12 connection cable; A-coded			
M12 angled male connector on M12 straight female			
connector, 4 pole; for sensor cables			
Cable length			
0.5 m	RVS SW12 BG12 05	83.401.0510.0	10
1.0 m	RVS SW12 BG12 10	83.401.1010.0	10
2.0 m	RVS SW12 BG12 20	83.401.2010.0	10
3.0 m	RVS SW12 BG12 30	83.401.3010.0	10
5.0 m	RVS SW12 BG12 50	83.401.5010.0	10
7.0 m	RVS SW12 BG12 70	83.401.7010.0	10
10.0 m	RVS SW12 BG12 100	83.401.9910.0	10
M12 connection cable; B-coded, shielded			
for PROFIBUS DP; angled male connector on angled			
female connector			
Cable length			
0.6 m	RVDP SW12 BW12 06	83.403.0611.9	10
1.0 m	RVDP SW12 BW12 10	83.403.1011.9	10
1.5 m	RVDP SW12 BW12 15	83.403.1511.9	10
2.0 m	RVDP SW12 BW12 20	83.403.2011.9	10
3.0 m	RVDP SW12 BW12 30	83.403.3011.9	10
5.0 m	RVDP SW12 BW12 50	83.403.5011.9	10
7.0 m	RVDP SW12 BW12 70	83.403.7011.9	10
10.0 m	RVDP SW12 BW12 100	83.403.9911.9	10