Drive System
SD2S

SIEB & MEYER

Top Technology made in Germany

SIEB & MEYER was founded in 1962 and has been an internationally successful company in the field of industrial electronics since then. With 300 employees we develop and manufacture control and drive technology. Our product range includes controllers for the machine construction and automation technology, servo amplifiers for various drives, frequency converters for high-speed applications and feed-in technology for renewable energy. Concentration on our core competence results in a worldwide leading position for controllers in the field of PCB tooling and routing machines. Close cooperation with our customers from the development up to the troublefree operation of our products is the basis of our quality philosophy. Highly qualified engineering teams and a modern manufacturing process lead to a maximum amount of innovations and flexibility in serving our customers. Worldwide service and customeroriented training are guaranteed with our headquarters in Lueneburg and our subsidiaries.

SIEB & MEYER

Drive System SD2S – The Smart Drive Amplifier

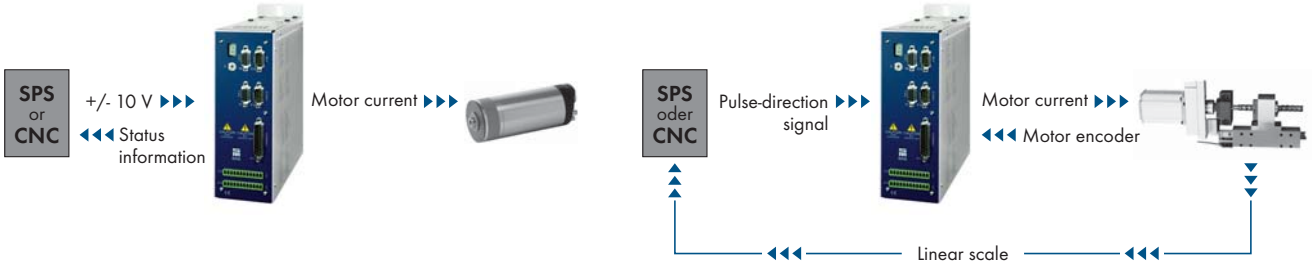
Powerful, flexible, low cost – these words describe the drive amplifier SD2S by SIEB & MEYER. The compact dimensions allow space-saving design of the switch cabinet.
Linear motors, rotary servo motors, high-pole torque motors as well as synchronous/asynchronous tool spindles with or without sensor can be driven by the SD2S. The specialty: Synchronous and asynchronous motors can reach speeds up to 480,000 rpm. For the connection to a higher-ranking control analog reference values (+/-10 V) or pulse-direction values, CAN bus or Profibus* signals/protocols are processed. For frequency converter applications a plug-on operating unit is available. Alternatively, a CNC control can be connected via the bus system SERVOLINK 4. SIEB & MEYER offers a SERVOLINK 4 PCI plug-in board for a PC-based control. The used optical fiber technique ensures a particular fail-safe connection between the CNC control and the drive amplifiers.

Universal Motor Encoder Interface – SD2S evaluates all common measuring systems for rotary and linear motors. The drive controls systems with absolute value encoders with EnDat, Hiperface or SSI interface, encoders, magnetoresistive sensors, Hall effect sensors, linear Hall sensors, linear scales with 1Vpp or TTL level as well as resolvers.

Safety Integrated – The safety category 4 acc. to EN 954-1 can be reached by the integrated restart lock. As external protective circuits can be reduced, system costs are minimized.
The requirements according to SIL 3 and EN 61508 are met.

* via Anybusadapter
** SD2S 1.4 kVA to 9.7 kVA (left) and SD2S up to 1.4 kVA (right)

Examples for System Integration



SIEB & MEYER
PCI plug-in board

Alternatively:
SIEB & MEYER CNC

The Interfaces of SD2S

Safety Integrated
Restart lock acc. to EN 954-1, category 4 / EN 61508, SIL 3

USB adapter
Parameterization and diagnosis

Encoder input
(pulse-direction signals)

RS 232 / CAN interface.
Parameterization, diagnosis and operation

Encoder emulation

Analog reference value interfaces: +/-10 V
Analog outputs: + 10 V

Universal Motor Encoder Interface
Resolver, encoder / linear scale (TTL or SinCos), EnDat, Hiperface, SSI, Hall effect sensor, linear Hall sensor, magnetoresistive sensor

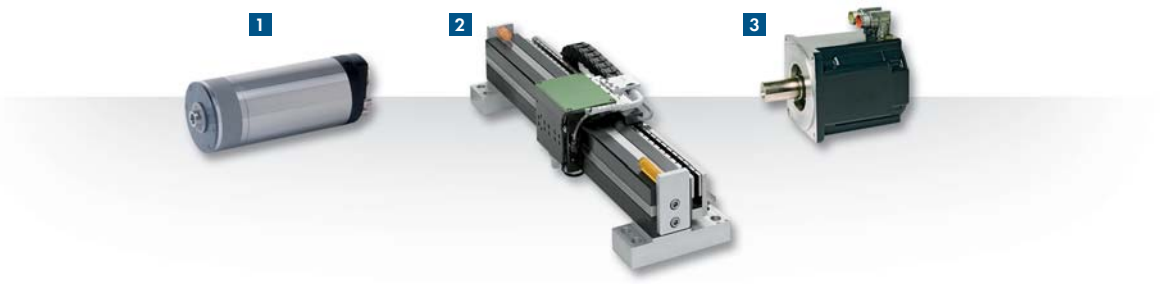
9 digital inputs and
5 digital outputs

Additional external braking resistor

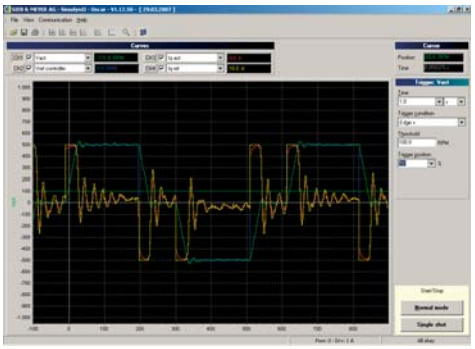
SERVOLINK 4
via optical fiber connector

Mains supply

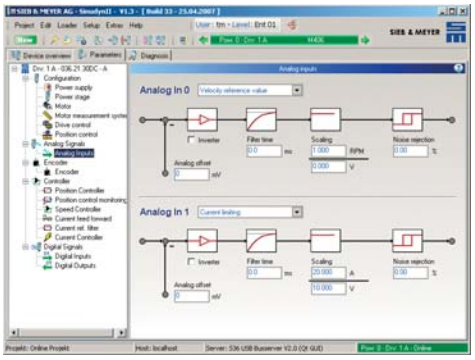
Motor connection
for spindle 1, linear motor 2 and rotary motor 3



Software for Initial Operation and Parameterization: *drivemaster2*



The oscilloscope function allows optimization of the axes in the machine without additional measuring equipment. That way for example overshoots during positioning can be eliminated or resonance frequencies in the mechanical elements can be reduced.



The clear design of the software allows intuitive parameterization via graphics and block diagrams. The „Parameter-Wizard" guides the user step-by-step through the system configuration and allows intuitive setup of the device via help messages and comments.

SIEB & MEYER Motors: Compact and Powerful

Please ask us for SIEB & MEYER motors that are suitable for your application.

Technical Specifications SD2S

1-phase supply

50 V mains supply (AC)			
0.3 kVA	I_r: 10 A	I_p: 14 A	250 x 75 x 180 mm
0.7 kVA	I_r: 20 A	I_p: 28 A	250 x 110 x 180 mm

230 V mains supply (AC)			
1.4 kVA	I_r: 10 A	I_p: 14 A (28 A)*	250 x 75 x 180 mm
3.8 kVA	I_r: 20 A	I_p: 28 A (56 A)*	250 x 110 x 180 mm

3-phase supply

50 V mains supply (AC)			
1.5 kVA	I_r: 20 A	I_p: 28 A	250 x 110 x 180 mm

230 V mains supply (AC)			
6.9 kVA	I_r: 20 A	I_p: 28 A (56 A)*	250 x 110 x 180 mm

480 V mains supply (AC)			
9.7 kVA	I_r: 14 A	I_p: 56 A	250 x 110 x 180 mm
15 kVA	I_r: 23 A	I_p: 29 A	390 x 175 x 180 mm
20 kVA	I_r: 33 A	I_p: 50 A	460 x 225 x 220 mm
30 kVA	I_r: 44 A	I_p: 60 A	460 x 225 x 220 mm

I_r = rated current, I_p = peak current. Stated currents are rms values.
Voltage limits at 50 V: 50 V -10% up to 64 V +10%,
Voltage limits at 230 V: 110 V -10% up to 230 V +10%,
Voltage limits at 480 V: 230 V -10% up to 480 V +10%
The device dimensions are defined as height x width x depth, related to the mounting dimensions.

* Version with higher peak current.

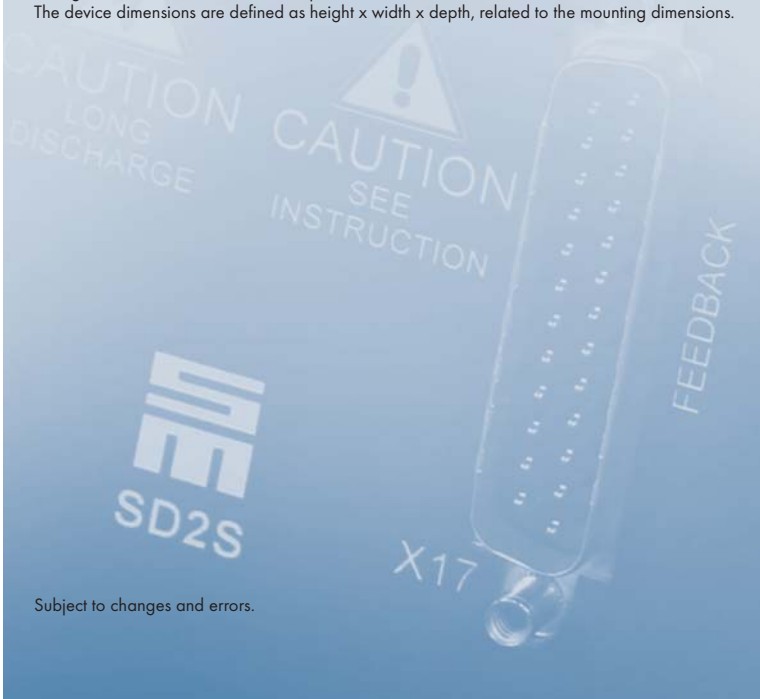
DC mains supply

680 V (DC) mains supply – Supply via external power supply			
55 kVA	I_r: 80 A	I_p: 120 A	480 x 355 x 260 mm

Technical Specifications of PS10

3 x 480 V mains supply (AC)		
48 kW	55 kVA	480 x 150 x 260 mm

Voltage limits at 480 V: 400 V -10% up to 480 V +10%
The device dimensions are defined as height x width x depth, related to the mounting dimensions.



Subject to changes and errors.

- **CNC Controllers**
- **Drive Electronics**
- **Feed-in Technology**

SIEB & MEYER AG
Auf dem Schmaarkamp 21
21339 Lüneburg
Germany
Phone +49-4131-203-0
Fax +49-4131-203-2000
E-Mail: info@sieb-meyer.de
www.sieb-meyer.com

SIEB & MEYER ASIA Co., Ltd.
5th Fl., No. 578, Sec. 1, Min-Sheng N. Rd.
Kwei-Shan Hsiang, Tao-Yuan Hsien 33393
Taiwan, R.O.C.
Phone +886-3-3115560
Fax +886-3-3221224
E-Mail: smasia@ms42.hinet.net
www.sieb-meyer.com

SIEB & MEYER USA, LLC
4460 Lake Forest Drive, Suite 228
Cincinnati – OH 45242 – USA
Phone +1-513-563-0860
Fax +1-513-563-7576
E-Mail: sales@sieb-meyerusa.com
www.sieb-meyerusa.com

SIEB & MEYER (SHENZHEN) TRADING Co. Ltd.
15 Floor H, Seaview Building
Taizi Road, Shekou, 518067 Shenzhen – China
Phone +86-755-26811417
Fax +86-755-26812967
E-Mail: sma-china@umail.hinet.net
www.sieb-meyer.com

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