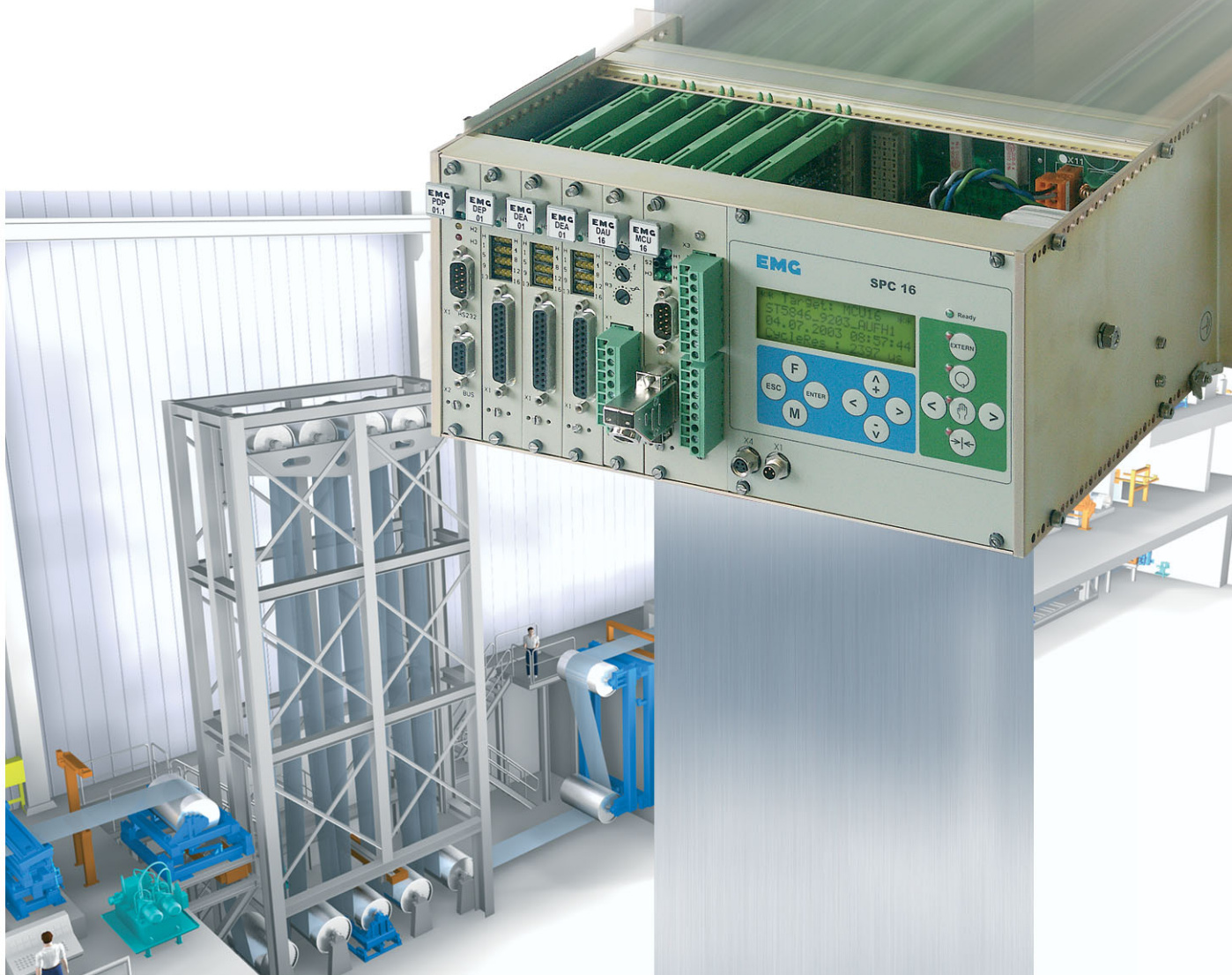


EMC

SPC

Digital Control System



SPC 16 / SPC compact

EMG Elektro Mechanik GmbH does have many years of experience and expertise in the development and application of modern control electronics.

After many successful solutions with the analogue technology, EMG focusses today on the quality and capacity of digital electronic control systems.

SPC 16 - a modular system of insert cards for enclosed-mounting, comprises a lot of application and expansion possibilities.

SPC compact - a single-board control amplifier in sheet-steel cabinet to be used for standardised applications in the field of strip guiding.

Other advantages of EMG's electronic control system are:

- precise and reliable control accuracy
- short start-up time
- high availability
- ease of operation
- most up to date field bus technology
- good cost effectiveness

User-friendly operation

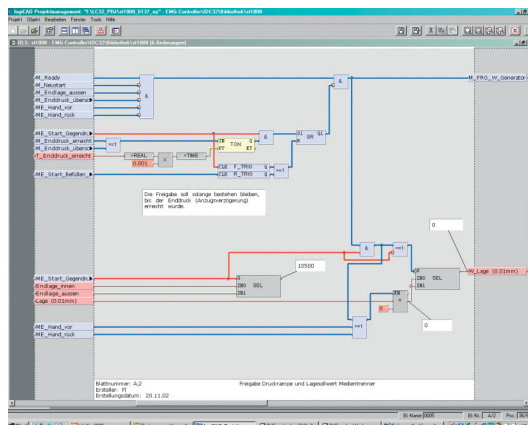
- Coloured background keyboard with LED display
- Built-in mode operating control keyboard, external mode control by standard PLC via 24 V inputs/outputs
- Four-line, illuminated background LCD-display for the simultaneous display of measuring and parameter values
- Process variables are programmable to give optional analogue outputs for chart recording
- Display of interface signals at Profibus-connection
- Set parameters can be stored in a PC

Software

- Programmes documented by [EMG_CAD/32](#)
- Programmes can be downloaded through a PC
- Storage of pre-selected settings and parameter values will be maintained on power failure
- Closed loop manual control is possible by using a longitudinal stroke transducer at the actuator
- Expandable for customer applications and extended features

Option "Runtime Edition"

- Online connection between PC and SPC 16 with [EMG_CAD/32/RE](#) (Runtime Edition)
- Display of process status of all project variables and function blocks
- Fast diagnosis by "forcing" all variables, even those of the I/O level
- Tool: "Oscilloscope" included in the [EMG_CAD/32/RE](#) package
- Storing of measured values in ASCII-file



... experience with most up to date

Technical Data

Mains voltage:

115/230 V, +10 %/-15 %, 50/60 Hz

Power consumption: approx. 70 VA

Voltage outputs:

± 15 V ± 0.15 V each max. 0.1 A

+24 V ± 10 % max. 0.25 A

Ripple 1.5 V_{ss} max.

Short-circuit-proof $R_i = 7.5 \Omega$

Operating temperature: 0 – 50 °C

Storage temperature: -20 ...+60 °C

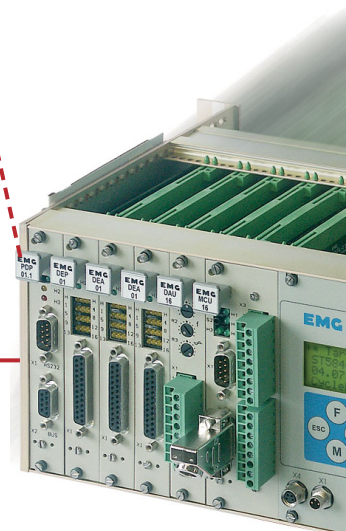
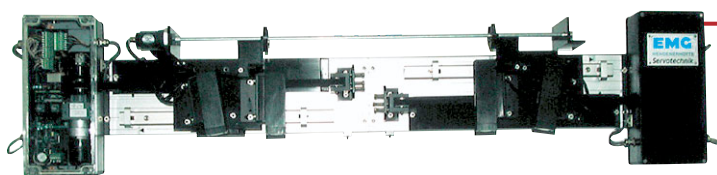
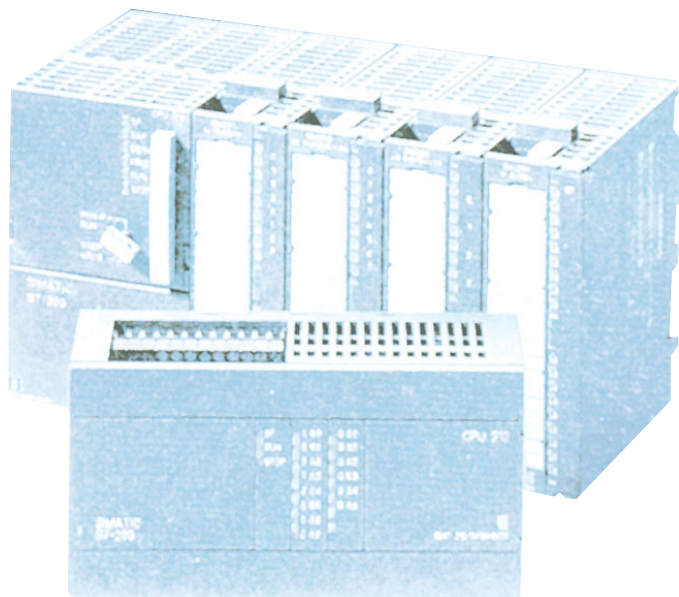
Dimensions:

(WxHxD) 300 x 160 x 270 mm

Weight: approx. 3 kg

Type of protection:

IP 54 mounting in sheet steel enclosure



Display and Control

The display and control unit is fitted to the amplifier or the

LCD-display, four-line, illuminated background with keypad.

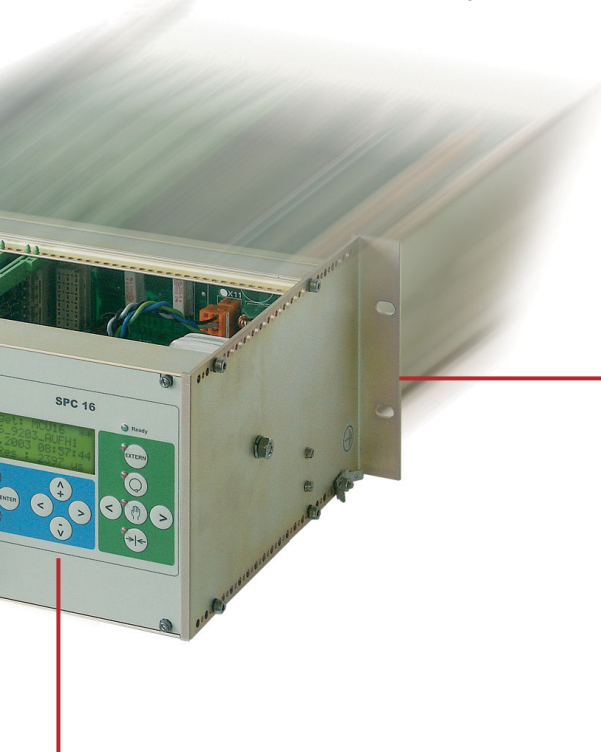
The keypad is used for selecting the measuring points as well as for preselecting the parameter values and their changing by means of the cursor buttons.

digital technology

Universal Communication

- All EMG measuring systems
- All EMG servo valves
- Control electronics for electro-servo-cylinder
- CAN-Bus Master to communicate with peripheral equipment
- Profibus DP Slave to communicate with PLC via optional plug-in card
- Connection for encoder with SSI-interface or incremental encoder via additional plug-in cards
- Optional analogue outputs with electrical isolation

Front connection technique



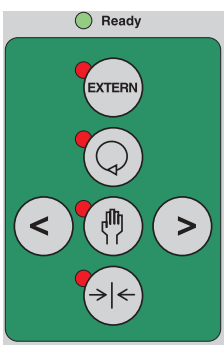
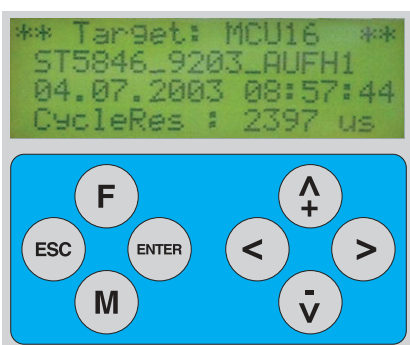
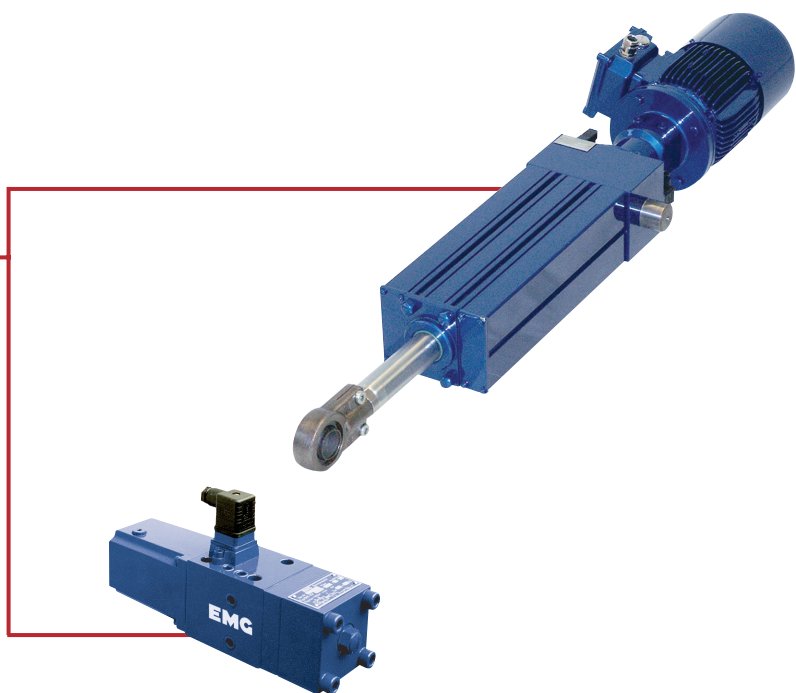
I Unit

can either be
e cabinet door.

Standard Interface Signals

Assignment of PLC compatible inputs and outputs

- Inputs (non-isolated, 24 V supply by SPC 16)
 - "Automatic" mode
 - "Manual" mode
 - "Centre" mode
 - Jog mode Manual left
 - Jog mode Manual right
- Outputs (potential-free relay contacts with common root, load max. 0.2 A DC)
 - Ready to operate
 - Measuring equipment ok
 - Release External Operation
 - "Auto" selected
 - "Centre" selected (Centre position approached)
 - "Manual" selected



Keypad Operating mode/Operation

- External
- Automatic
- Manual / left / right
- Centre



... solutions for your strip control system

Compact single-board control amplifier in sheet steel enclosure

- defined basic functions for strip control systems in a compact design
- display and control unit and configuring surface [EMG_CAD/32](#) identical with SPC 16
- standardised input/output interfaces
 - with all stationary EMG measuring systems
 - with all EMG servo valves
 - CAN-Bus Master / Slave communication with peripheral equipment
- Optional extra:
 - Profibus DP / Slave
 - Analogue outputs with ± 10 V DC isolation
- Mains voltage: 24 V DC or 100 ... 230 V / (85 ... 264 V) 50 / 60 Hz



System configuration with SPC compact



EMG

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Brazil

Germany

Germany

Germany

India



BST Pro Mark Technologies, Inc.

EMH-Eletromecânica e Hidráulica Ltda.

EMG Automation GmbH

BST International GmbH

EMG, Factory ELTMA

BST SAYONA Web Control Systems Ltd.