

## User Information

English translation

### Correct Use

The EPR16S combines the technical advantages of a programmable logic controller (PLC) with a maximum of operator convenience. Program unit, operator guidance and controller are integrated in one device. Thanks to clear text-conversation programming is very simple and can be learnt in a very short time. 9 keys without complicated double-functions are sufficient, even for complex program inputs.

### Features

- Editing, deleting and documentation of the operating states of the outputs
- Editing, deleting and documentation of the input combination
- 20 complete programs
- Copying program segments or whole program
- Any program jumps
- By using the internal time base, each step time between 1 ms and 99.9 min is possible
- 16 outputs, 8 inputs, input for external clock- and reset input
- Changing clear text display during operation, e.g. for displaying steps or speed
- Serial interface for data transfer to PC/PLC
- Output of the running process data, e.g. machine position or speed via the serial interface
- Programmable with EPRPRO for WINDOWS via PC



### Scope of Applications

Thanks to clear text-conversation programming is very simple and can be learnt in a very short time. 9 keys without complicated double-functions are sufficient, even for complex program inputs.

Neither external programming devices are necessary, nor the knowledge of a program language. The operating states of the outputs and the combinations of the inputs are entered by transferring the sequence diagram into the controller.

The device is integrated in a splash and dust proofed compact panel case with dirt-insensitive foil-coated processure point keys. The modular electronics are based on European standard size PC boards. All components can be replaced at the rear side without disassembling the device.

The EPR16S solves many varying control tasks:

- complex sequential controls over time, also dependent on input signals, e.g. control of machine tool, bakery machines, galvanic devices, machines for tire production, cleaning machines, car-wash plant, forest industry machines etc.
- Angle-, way-, counter controls and externally synchronized sequential logic controls using the external clock input, e.g. coiling machines, cutting machines, manufacturing

machines, packaging machines etc.

- any combinations of these applications.

**EPR16S** - the intelligent one-device-solution for your control problem..

### Safety Precautions



- The installation and operation must be carried out by qualified personnel only,
  - who is familiar with the professional handling of machine equipment,
  - who is familiar with the valid rules of industrial safety and accident prevention,
  - who read and understood the operating instructions and the system manual.
- The safe function of the device during machine operation cannot be guaranteed in case of wrong connection or improper operation. This may lead to fatal injuries.
- Pay attention to country specific regulations.
- The electrical installation must be performed after disconnecting the device and the machine from the mains supply.
- The wiring must be carried out according to the instructions of this operating manual.
- The person who programs the device must be protected against electrostatic discharge (ESD protection).
- Opening the device, any manipulation of the device and the avoidance of the safety facilities are not permitted.
- All relevant safety regulations and standards must be attended to.
- Non-observance of the safety regulations may cause death, severe injuries or substantial damage to property.
- Before use, please, read the operating instructions and keep it in a safe place. Make sure that the operating instructions are always available for installation, initial operation and maintenance.

Non-observance of the instructions above will cause the loss of warranty.

## User Information

### Installation

Operation voltage: AC 230V/115V  
 Mains frequency AC: 50-60Hz  
 Power consumption: approx. 14VA  
 Temperature range: 0° - 40°C  
 Protection: IP54 front  
 Weight: approx. 1300g  
 Fitting position: as desired

### Outputs

16 transistor outputs, DC 10-60V, 100mA  
 Plus-switching  
 Electrically isolated by optocoupler  
 Rear 37-pole Sub-D plug-in connection

### Inputs

8 inputs, enable step, logical combination  
 1 reset input  
 1 clock input, max. 2000Hz  
 each DC 10-30V, electrically isolated

### Incremental Encoder Input

Electrically isolated by optocoupler  
 clock input, 2 lines, right/left direction of rotation  
 max. 2000Hz  
 0-position input (reset)

### Auxiliary Power Supply Output

DC 12V, 250mA stabilized  
 Electrically isolated

### Serial Interface

V24, RS232-level  
 300-9600 Baud, 8 Bit, even parity

### Processor System

16-Bit-CMOS processor system  
 8MHz system cycle, 16MHz clock  
 32KB EPROM, 128KB RAM  
 Battery-buffered, with retentive memory

### Display

12-digit LED-dot matrix red, all ASCII-characters,  
 special characters  
 Height of symbols 5.08mm,  
 3 adjustable brightness levels

### Keys

Integrated foil-coated keys with pressure point, 9 keys, IP65

### Programming

Integrated programming unit, clear text-dialogue entry via keys or personal computer,  
 Optional release by external key-operated switch  
 Input functions for:

- New input, alterations, documentation of output-switching areas
- New input, alterations, documentation of input combination
- Deleting output-switching areas
- Deleting whole program
- Program selection
- Number of steps
- Program jumps
- Time of step
- Time unit
- Program (segment) copying
- In-operation correction
- Installation
- Conversion factor
- Communication via serial interface

### Self-Monitoring

Watch-Dog with control-output, memory-check  
 Transfer-check serial interface

### Mechanical Construction

Sturdy plastic case in accordance with DIN 144x144mm  
 Front: foil-coated keys on aluminium supported-plate  
 All electrical connections on rear side with plug connectors  
 Mains and key-operated switch on screw terminals connection

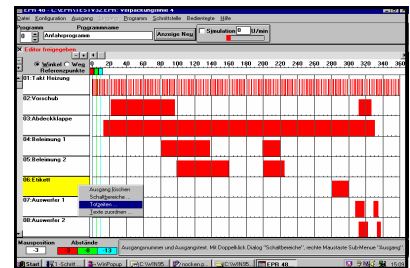
### Accessories

#### EPRPRO for WINDOWS:

PC-software for programming  
 data transfer  
 text editing, documentation

Cable for serial interface 2m,  
 2x Sub-D-plug-in connection 25-pol.  
 Order-No. 585732

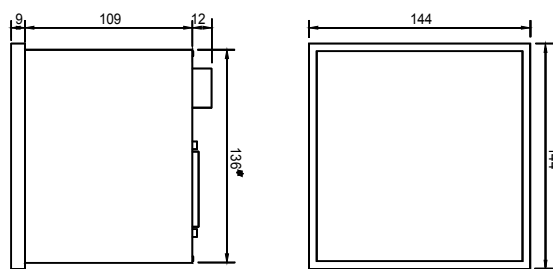
Cable for serial interface 2m,  
 1x Sub-D-plug-in connection 25-pol.  
 1x Sub-D-plug-in connection 9-pol.  
 Order-No. 585733



**EPRPRO for Windows** - programming couldn't be easier.

The PC-Software for all EPR/EPC-devices.

Dimension Drawing



### Variants

Order no. 585420	EPR16S, 230V AC
Order no. 585421	EPR16S, 115V AC
Order no. 585450	EPR16-RE Relais output card
Order no. 585455	EPR16-OK Optocoupler output card
Order no. 585716	EPRPRO for Windows XP, Win7 32Bit



See user manual for complete description of the device.