

SPEEDY is the micro-PLC for maximum performance in minimum dimensions. The heart of the control is not a micro-controller, rather an FPGA-chip. This means that SPEEDY runs your program internally, absolutely parallel and in real-time – with no cycle times. Further advantages: no system crashes through software errors because your program is not saved as code but is "wired" in the FPGA-chip according to the desired function.

- **High-speed – no cycle times**
- 9 digital inputs
- 8 digital relay outputs
- 1 cycle input, optionally also as digital input
- 2 potentiometers for adjustable time functions
- 3 compact device variants
- High interference protection, mains filter, overvoltage protection
- Simple programming without programming devices
- Absolutely power fail safe
- Modular extension facility
- Plug-in terminals



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The basic version of *SPEEDY* has 9 digital inputs, which can optionally be used as counter inputs and 8 digital outputs, power relay or power transistor outputs. Two integrated potentiometers allow time adjustments during use. *SPEEDY* also has an expansion socket as a standard feature. Extension modules can be connected to this with no problems. And if this is still not enough, we can adapt *SPEEDY* to your individual application.

Functions

Apart from time and counter functions, random logic operations between inputs and outputs can be programmed.

Since the control works in parallel without internal cycle times the outputs react to changes in the input signals **without** delay, apart from the switching times of the relays and transistors.

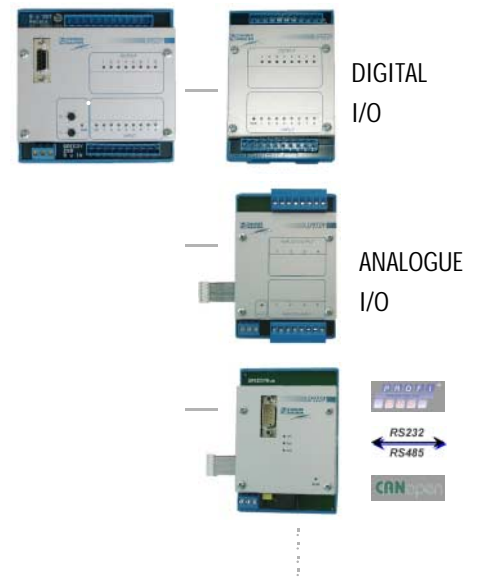
Two externally accessible potentiometers enable a continuous time adjustment even during running processes. Four time domains cover a range from 10ms to 10min. Further division factors can be programmed with the

software. If the potentiometers are set fully to the left you have an internal calibrated time base of 10ms.

The cycle input CK can also optionally be used as a logical digital input. The other digital inputs can also process fast timing signals.

Programming

SPEEDY can be easily programmed with our PC program **EX_PRESS** for Windows. Connect the integrated programming socket to the printer port of your PC or notebook, start our PC program **EX_PRESS** and away you go. No programming devices are needed. Formulate your problems comfortably and quickly, from simple logical instruction lists through to **structured text according to IEC 1131**. Then load the program from the PC to the control – that's all there is to it. Naturally, you can also delete loaded programs from your PC. And it doesn't matter how and in which sequence you have written your programs, everything runs in parallel and real-time in *SPEEDY*.





High-SPEED-Micro-PLC SPEEDY

Standard programs

Complete standard programs are available for a number of applications. Step-by-step switching devices, gate control, compressor control, fault detection systems, gluing control, automatic filling machines... *SPEEDY* can be used easily and universally.

Installation

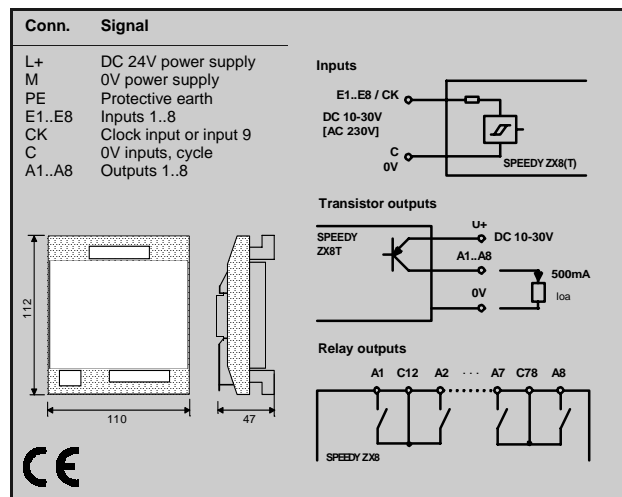
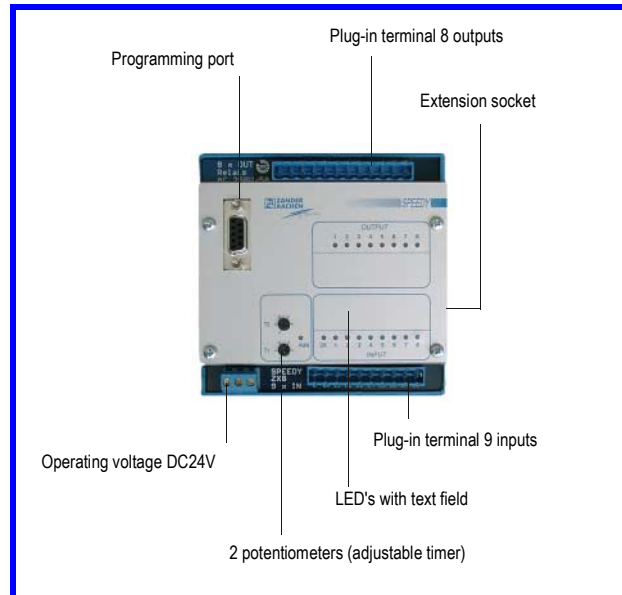
SPEEDY can be clipped onto 35mm DIN rails. The control requires an unstabilized, smoothed DC 24V power supply. Mains filter and overvoltage protection are integrated. The grounded earth should be connected to the PE terminal for shielding. Our NTX power supply unit is used as a low-cost compact, power pack for connection to AC 230V/115 V. Connection is via a plug-in screw terminal.

Each input is switched on the hardware side with a signal delay of approx. 1ms to ensure a high interference protection.

Extension modules

SPEEDY has an expansion socket as a standard feature. Extension modules can be connected to this, e.g. 8 additional I/O's, analogue I/O's, external timer module, text display as well as a bus connection module. Please refer to the separate data sheets.

Specifications	
Operating voltage	DC 24V, +/-20%
Residual ripple	max. 5%
Current consumption	approx.. 50mA plus 10mA per activated output
Inputs	each DC 18-30V, also as clock inputs
Outputs:	8 relays or transistors, each 1N/O
Clock Input	DC 10-30V, also as digital input
Timer	2 integrated programmable timer
Time base	10ms fixed, 0.01-2.5s; 0.3-10s ; 2-80s; 0.3-10min variable setting via front potentiometers, other times also possible through software
Available internal flags	44 Bit-register add. 1 register per output
Capacity of logical combinations	approx. 5000 AND / 300 OR
Time Delay Input/Output	approx. 100µs
Max. input frequency	ca. 10kHz each input
Temperature range	0 -+50° C
Weight	approx. 300g
SPEEDY ZX8/ZX8V (8 relay outputs) Switching capacity	AC 250V 5A, DC 24V 3A, ohmic load two outputs each with common connection external fusing necessar ZX8V with additional varistor 250V at each output
SPEEDY ZX8T (8 transistor outputs) Switching capacity	DC 10..30V; 0,5A short circuit proof



Order-No	Type
588302	SPEEDY ZX8, DC 24V, 9 inputs DC 24V, 8 relay outputs
588303	SPEEDY ZX8, DC 24V, 9 inputs AC 230V, 8 relay outputs
588310	SPEEDY ZX8V, DC 24V, 9 inputs DC 24V, 8 relay outputs with varistor
588311	SPEEDY ZX8V, DC 24V, 9 inputs AC 230V, 8 relay outputs with varistor
588315	SPEEDY ZX8T, DC 24V, 9 inputs DC 24V, 8 transistor outputs
471200	NTX, power supply unit AC 230V / DC 24V, 160mA
588290	EX_PRESS for Windows9x/NT/XP Programming software with cable