

Control for extraction systems with bus type STW164IP

Control of up to 32 Sliders via bus line

STW164IP



Part numbers:

STW164IP **S225542**

ER8 **T224388**



The basic function of the device is to detect whether a current is flowing in the supply line of one of several woodworking machines. If a current flow is detected, the device opens a slider on the extraction channel of the machine. The extraction system is switched on at the same time. When a machine is switched off, the device closes the associated slider with a delay. If the last machine is switched off, the extraction system also stops after a delay time.

Controllers STW164IP in conjunction with slider controls STW168M and bus modules STW161M allow the control of extraction systems with up to 32 machines.

The control STW164IP serves as the central control unit. It records the operating state of the machines by measuring their current consumption in the supply lines (current transformer STWA1 (H)) or via potential-free contacts. It switches on the central extraction and opens the sliders on the channels to the individual machines. 8-fold slider modules are used to control the sliders. These can be mounted next to the STW164IP or distributed in the system. The latter reduces the wiring effort.

Additional sliders can be opened to optimize the air flow. Assignment to different lines and prioritization is possible. It is also possible to control cleaning and discharge.

The parameters are conveniently configured via the network (Ethernet). If the control is connected to the Internet, it can also be parameterized remotely. The recording of operating hours of the machines and the switching frequency of the valves provide valuable services for preventive maintenance. In this way, components can be replaced as part of a service operation before they age and fail.

Description:

- Individual evaluation of 16 machines on the device (STWA 1, current sensor S1 or contact) Another 16 machines via slider controls/bus modules
- Input for "all sliders open" with timer for automatic shutdown
- 1 relay for extraction motor
- 1 relay for filter cleaning
- 1 relay for discharge (staggered start possible)
- 1 relay for message max. volume flow exceeded or fault messages
- Control of up to four 8-fold slider modules for controlling sliders via potential-free contacts
- Control of up to 32 1-fold bus modules for controlling sliders DC 24V
- Analog output 0-10V for frequency converter control on the extraction motor
- Plug-in connection terminals
- Supply voltage DC 24V
- Accessories: [Installation frame ER8 for panel mount](#)

Function/setting options:

- Switch-on delay extraction 0...1200s
- Overrun extraction 0...1200s
- Overrun last slider 0...1200s
- Minimum volume flow, 1...
- 100% (if necessary, automatic opening of additional sliders, sequence can be set via priority of sliders)
- Maximum volume flow 5...100%
- Logging of the operating processes
- Operating hours counter for extraction system and extracted machines
- Counter for switching frequency of the sliders

Individually adjustable per channel (I0...I31):

- Response thresholds approx. 0.5...9.9A
- Switch-on delay 0...20s
- Volumetric flow slider 1...100%
- Overrun slider 0...120s

Control of filter cleaning:

The runtime of the extraction is added taking into account the volume flow. Cleaning is started after the programmed runtime has expired. Vibrating processes are only carried out when the extraction is switched off.

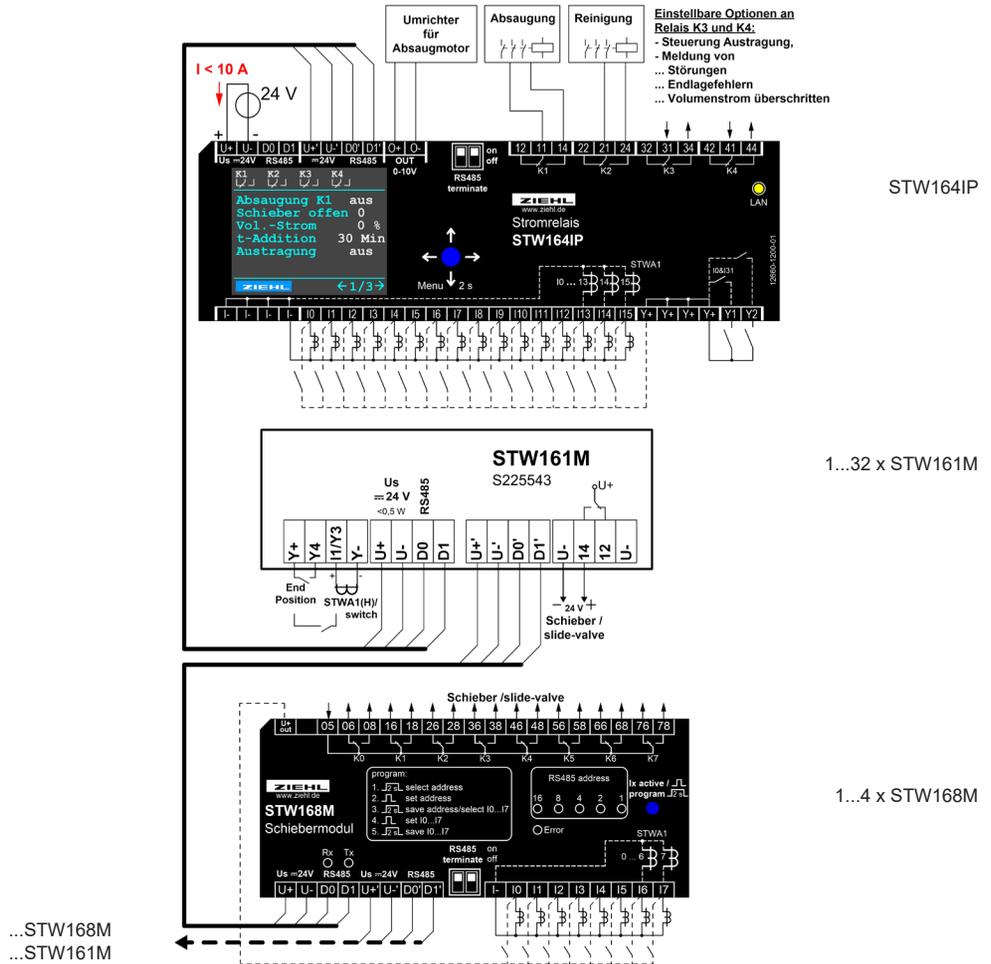
- Addition time: 0...1200min
- Storage of the added time even in the event of a power failure (power failure, closing time)
- Rundown time: 0...1200s
- Number of vibration intervals: 0...20
- Interval vibration time: 1...30s
- Interval break time: 1...120s
- Continuous vibration time: 0...1200s
- Optional pulse vibration 0.1...10s (rectangle)
- Optional cleaning request (while the extraction is running) for cleaning with compressed air
- Input for external vibration command
- Control of the overrun of the chip removal depending on the cleaning.

Ethernet interface:

- Integrated web server
- Modbus TCP (read)

Display and operation:

- Color LCD display for displaying operating states and programming
- Intuitive operation with joystick
- Via web browser
 - Display of the operating states
 - Convenient programming
 - Saving and transferring configurations
 - No additional software required



Technical Data
STW164IP

Control voltage Us	DC 24V
Tolerance/ power consumption	DC 20 - 30V/ < 3W
Relay outputs K1, K2, K3, K4	4 x 1 changeover contact
Switching voltage	max AC 300V, DC 300V
Inrush current NO contact (no)	AC 15A, 4s, 10% ED
Minimum values voltage/current	12V 10mA
Conventional therm.current Ith	max. 5A
Switching capacity max AC cosfi=1	2000 VA
Inputs I0...I15	STWA1(H), potential-free contact, current sensor
Connectable converters	S1
Overload capability with STWA1(H)	max. 100 A continuous, max. 300A for 10s
Inputs Y1, Y2	
Internal resistance	approx. 38kQ
Switching threshold	ON > 17V, OFF < 8V
EMC tests	EN 61326-1
Interference emission/resistance	CISPR 11 Class B/ industrial environment
Permissible ambient temperature	-20°C_+55°C
Vibration resistance EN 60068-2-6	2...13.2Hz ± 1mm 13.2...100Hz 1g 2...25Hz ± 1.6mm 25...150Hz 5g
Housing / installation frame	Type V8 distributor installation / ER8
Dimensions (W x H x D)	140 x 90 x 58mm (8 TE), installation depth 56mm
Cable connection single-wire	1 x 0.34 - 1.5mm ² / AWG 22 - 14
Fine-wire with ferrule	1 x 0.1 - 1.0mm ² / awg 27 - 16
Stripping length / tightening torque	8mm / 0.5Nm
Protection class	IP 30 / IP 20
housing/terminals fastening	Snap-on fastening on 35mm mounting rail to EN 60 715 or M4 screw fastening (additional latches not included)
Weight	approx. 310g