

# AC-Electronic Current Transducer STWA1FH

## with frequency output

STWA1FH  
Electronic Current Trans-  
former with current pro-  
portional frequency output  
0...20 A - 0,5...20 Hz



The STWA1FH provides a frequency output with 0.5...20 Hz which corresponds to a current flow of AC 0 - 20 A through the transformer. Multiple loops of the conductor through the transformer reduce the current range correspondingly (e.g. with fourfold looping-through 0 - 5 A correspond to 0.5...20 Hz).

For the monitoring of high currents, the STWA1FH is simply looped in the secondary circuit of a large current transformer. Consequently, the frequency output is proportional to the primary current of the transformer, e.g. 0 - 100 A for a transformer with 100/5 A (cable four times through the STWA1F).

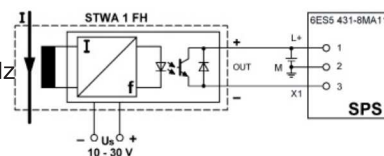
The offset of 0.5 Hz at the beginning of the transducing range is for technical reasons. During evaluation, it can be taken into account.

Application: The STWA1FH enables moderately priced detection of the value of an AC-current with a DIGITAL INPUT of a PLC. Costly analogue inputs are no longer necessary.

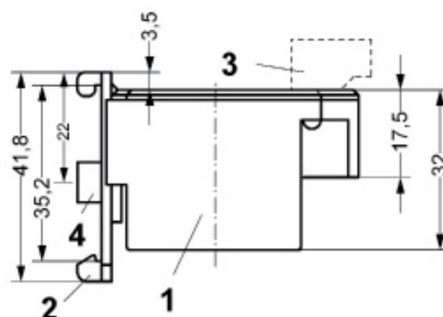
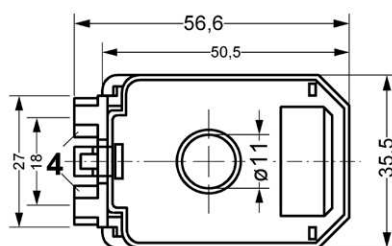
The STWA1FH is particularly suitable to evaluate the current in electric motors in machines of i.e. saws. The feed can be regulated dependent from the load of the motor of the saw.

- current-proportional frequency output 0.5 - 20 Hz = AC 0 - 20 A
- output isolated, max DC 30 V/30 mA
- output frequency limited to 30 Hz
- output can be connected to the digital input of a PLC
- incorporated reverse voltage protection diode
- electrical connection via screwless pluggable terminals
- supply voltage DC 10...30 V
- DIN-rail-mount or with screws  
plug-in current transformer (Ø 11 mm)
- Options:
  - currents up to 60 A
  - other frequencies

Power supply $U_s$	DC 10 - 30 V
Monitoring range	AC 0...20 A
Output	0,5...20 Hz
Switching voltage	max. DC 30 V
Switching current min/max	DC 1 / 30 mA
Adjustment time	< 0,5 s.
Error (of scale, above 10% / $I_{rated}$ )	≤ 3%
Temperature coefficient	< 0,06%/K
Nominal frequency/operating range	50 Hz/50...400 Hz
Error	≤ 0,2%/Hz
Overload capacity cont./10 s	500 V 0...55°C
Testing voltage to supply voltage	Design H
max. ambient temperature	42 x 36 x 56 mm 11 mm app. 90 g
Housing	



### Dimension illustrations



- 1 Housing
- 2 Clip for DIN-rail (removeable)
- 3 Terminal (pluggable)
- 4 Wall-mounting (M4)