

STI-94

- ▣ pulse rate / period meter
- ▣ rotational / linear speed control
- ▣ revolution / movement period control
- ▣ 0, 2 or 4 relay (or OC) outputs
- ▣ option: active current output
- ▣ RS-485 / Modbus RTU



STI-94 ratemeters are the board-type ratemeters designed to control rotational speed (from 1,5 to 50000 rev/min) or its inversion (revolution period). Available parameters of divider and multiplier enable flexible scaling of measure and transformation into linear speed. On top of that, they enable operation in the frequency and period meter mode, what allows to show e.g. material linear speed, baking time, drying time, revolution period. The ratemeters have 0, 2 or 4 relay (or OC) outputs, programmable depending on the instantaneous rotational speed.

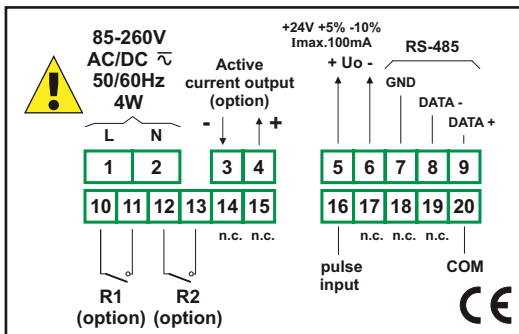
- password protection,
- "over" signalling when the measuring range is exceeded,
- setting the rotational speed units,
- settable delay time of control outputs: up to 99 sec. or min.,
- settable maximum waiting time for the next rotation,
- threshold hysteresis setting,
- ACCESS option - easy threshold modification,
- versions available with AC and DC power supply.

Typical applications

1. Measuring the rotational speed of crankshaft.
2. Measuring of baking time in continuous oven.
3. Measuring the speed of the material being wound, featuring alarm signalling and drive system control.



Exemplary pin assignment



Technical data

Power supply: 19V + 50V DC; 16V + 35V AC or 85 + 260V AC/DC, all separated
Power consumption: for 85 + 260V AC/DC and 16V + 35V AC power supply: max. 4,5 VA; 19V + 50V DC power supply: max. 4,5 W
Display: LED, 6 x 13 mm high, red (green - on request)
Inputs: pulse, galvanically isolated without contacts oscillation damping; maximum input frequency: 50 kHz
Displayed values range: 0 + 999999 + decimal point
Frequency measurement accuracy: ± 0.02% (full temperature range)
Rotational speed accuracy: selected in the range 0 + 0,00000
Rotational speed unit: revolutions per second (rps), per minute (rpm), per hour (rph)
Pulse waiting time: settable from 0,1 to 39,9 seconds
Outputs: 0, 2 or 4; relays 1A/250V AC (cosφ=1) or the OC 30mA/30VDC/100mW
Transducer power supply output: 24V DC +5%, -10% / max. 100 mA, stabilized, not insulated from communication interface
Active current output: operating range max. 0 - 24 mA, load resistance max. 700 Ω (option available with 2 relays, see ordering)
Communication interface: RS-485, 8N1 and 8N2, 1200 bit/s + 115200 bit/s, Modbus RTU (not galvanically insulated)
Data memory: non-volatile memory, EEPROM type
Operating temperature: 0°C + +50°C
Storage temperature: -10°C + +70°C
Protection class: IP 65 (front), available additional frame IP 65 for panel cut-out sealing; IP 20 (case and connection clips)
Case: board
Case material: NORYL - GFN2SE1
Case dimensions: 96 x 48 x 100 mm
Panel cut-out dimensions: 90,5 x 43 mm
Installation depth: min. 102 mm
Board thickness: max. 5 mm

Ordering

STI-94-14XX-1-X-XX1

options:
 00 : no options
 01 : IP 65 frame

power supply:
 3 : 24V AC/DC
 4 : 85V - 260V AC/DC

number of outputs:
 0
 2
 3
 4

type of outputs:
 1 : REL (for 2 and 4 outputs)
 2 : OC (for 2 and 4 outputs)
 3 : 2 x REL + current output
 4 : 2 x OC + current output