Ratemeters / Tachometers





STI-73

- pulse rate / period meter
 - rotational / linear speed control
 - revolution / movement period control
 - 1 REL / OC outputs
- power supply output: 24V DC
 - RS-485 / Modbus RTU
 - "over" signalling when the measuring range is exceeded
- free configuration software S-Config

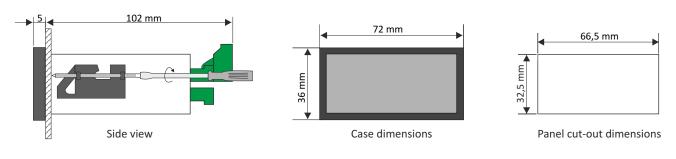
The **STI-73** tachometers are designed to control rotational or linear speed of moving objects. The device is also able to measure frequency. As an additional advantage the device can convert the rotational / linear speed into inverse values, and to display the single revolution period or process duration. The REL / OC control output can be programmed depending on the instantaneous value of rotational speed. The counter can be configured with the local keyboard or free S-Config software via the RS-485 communication port.

TECHNICAL DATA

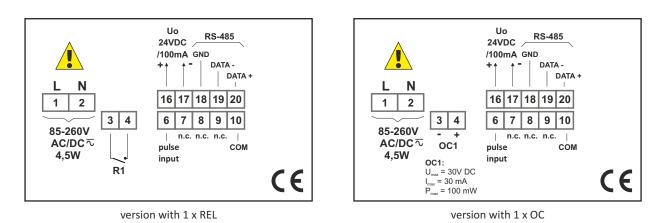
Power consumption\$V + 50V DC; 16V + 35V AC or 85 + 260V AC/DC or 12V AC/DC, all separated for 2V AC/DC, 85 + 260V AC/DC or 15V AC power supply; max. 4.5 VA; for 19V + 50V DC; max. 4.5 VADisplayIED, 6 × 9 m high, red, brightness adjustable in 8 stepsInputIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 KH2Input levelsIwas, fully isolated, fully isolated, fully isolated, fully isolatedInput levelsIwas, fully isolated, fully is		
Inputspulse, fully isolated, with denouncing filter and pulse width control, max. input frequency 50.0 kHzInput levelslow level: 0 Y + 1 V; high level: 10 Y + 30 V (about 12 mA @ 24V)Displayed values range0 + 999999 + decimal pointRotational speed precisionselected in the range 0 + 0.00000 of unitRotational speed unitrevolutions per second (rps), per minute (rpm), per hour (rph)Pulse waiting timesettable from 0.1 to 39.9 secondsAccuracy± 0.02% ± one digit (full temperature range)Binary outputs1 x REL 1_m=1A, U_m=30VDC/250VAC (cos#=1) or OC 1_m=30mA, U_m=30VDC, P_m=100mWPower supply output24V DC +5%, -10% / max. 100 mA, stabilizedCommunication interfaceRS-485, 8N1 and 8N2, 1200 bit/s + 115200 bit/s, Modbus RTU (not galvanically isolated)Operating temperatureorC + +50°C (standard), -20°C + +50°C (option)Storage temperature-10°C + +70°C (standard), -20°C + +50°C (depending on option)Protection classIP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips)Casepanel mounting; material: NORYL - GFN2 E1Dimensionscase (WxHxD): 72 x 36 x 97 mm panel cut-out dimension: 66.5 x 32.5 mm installation depth; min. 102 mm<		
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Pulse waiting timesettable from 0.1 to 39.9 secondsAccuracy± 0.02% ± one digit (full temperature range)Binary outputs1 x REL I_m_=1A, U_m_=30VDC/250VAC (cos#=1) or OC I_m_=30mA, U_m_=30VDC, P_m_=100mWPower supply output24V DC +5%, -10% / max. 100 mA, stabilizedCommunication interfaceRS-485, 8N1 and 8N2, 1200 bit/s ± 115200 bit/s, Modbus RTU (not galvanically isolated)Data memorynon-volatile memory, EEPROM typeOperating temperature0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)Storage temperature-10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option)Protection classIP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips)Casepanel mounting; material: NORYL - GFN2S E1Dimensionscase (WXHxD): 72 x 36 x 97 mm panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm board thickness brackets (see Accessories)	Rotational speed precision	selected in the range 0 ÷ 0.00000 of unit
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Binary outputs1 x REL I_max = 30 x DC / 250 VAC (cos \$\eta 1) or OC I_max = 30 VAC, P_max = 100 mWPower supply output24V DC +5%, -10% / max. 100 mA, stabilizedCommunication interfaceRS-485, 8N1 and 8N2, 1200 bit/s \hlip 115200 bit/s, Modbus RTU (not galvanically isolated)Data memorynon-volatile memory, EEPROM typeOperating temperature0°C \hlip +50°C (standard), -20°C \hlip +50°C (option)Storage temperature-10°C \hlip +70°C (standard), -20°C \hlip +70°C (depending on option)Protection classIP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips)Casepanel mounting; material: NORYL - GFN2S E1Dimensionscase (WXHxD): 72 x 36 x 97 mm panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm board thickness: standard 7 mo other depending on used board thickness brackets (see Accessories)	Pulse waiting time	settable from 0.1 to 39.9 seconds
Power supply output24V DC +5%, -10% / max. 100 mA, stabilizedCommunication interfaceRS-485, 8N1 and 8N2, 1200 bit/s ÷ 115200 bit/s, Modbus RTU (not galvanically isolated)Data memorynon-volatile memory, EEPROM typeOperating temperature0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)Storage temperature-10°C ‡ +70°C (standard), -20°C ÷ +70°C (depending on option)Protection classIP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips)Casepanel mounting; material: NORYL - GFN2S E1Dimensionscase (WxHxD): 72 x 36 x 97 mm panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm board thickness: standard 7 mm or other depending on used board thickness brackets (see Accessories)	Accuracy	± 0.02% ± one digit (full temperature range)
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Data memorynon-volatile memory, EEPROM typeOperating temperature0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)Storage temperature-10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option)Protection classIP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips)Casepanel mounting; material: NORYL - GFN2S E1Dimensionscase (WxHxD): 72 x 36 x 97 mm panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm board thickness: standard 7 mm or other depending on used board thickness brackets (see Accessories)	Power supply output	24V DC +5%, -10% / max. 100 mA, stabilized
Operating temperature 0°C ÷ +50°C (standard), -20°C ÷ +50°C (option) Storage temperature -10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option) Protection class IP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips) Case panel mounting; material: NORYL - GFN2S E1 Dimensions	Communication interface	RS-485, 8N1 and 8N2, 1200 bit/s ÷ 115200 bit/s, Modbus RTU (not galvanically isolated)
Storage temperature -10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option) Protection class IP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips) Case panel mounting; material: NORYL - GFN2S E1 Dimensions	Data memory	non-volatile memory, EEPROM type
Protection class IP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips) Case panel mounting; material: NORYL - GFN2S E1 Dimensions case (WxHxD): 72 x 36 x 97 mm panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm board thickness: standard 7 mm or other depending on used board thickness brackets (see Accessories)	Operating temperature	0°C ÷ +50°C (standard), -20°C ÷ +50°C (option)
Case panel mounting; material: NORYL - GFN2S E1 Dimensions	Storage temperature	-10°C ÷ +70°C (standard), -20°C ÷ +70°C (depending on option)
Dimensions case (WxHxD): 72 x 36 x 97 mm panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm board thickness: standard 7 mm or other depending on used board thickness brackets (see Accessories)	Protection class	IP 65 (front), optional integrated frame for panel cut-out sealing; IP 20 (case and connection clips)
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Weight 160 g max.	Dimensions	panel cut-out dimensions: 66.5 x 32.5 mm installation depth: min. 102 mm
	Weight	160 g max.



DIMENSIONS

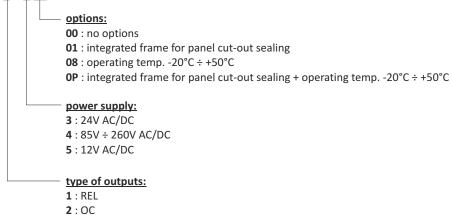


EXAMPLARY PIN ASSIGNMENT



ORDERING

STI-73-141<u>X</u>-1-<u>X</u>-<u>XX</u>1

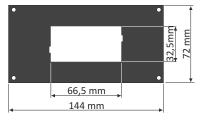






MOUNTING PLATES





SMP-147/73

maskownica 144 x 72 mm do montażu urządzeń w obudowie 72 x 36 mm

BOARD THICKNESS BRACKETS / ADAPTORS



SPH-07 1 ÷ 7 mm board thickness brackets (2 pcs) standard included with device



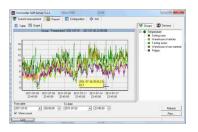
SPH-05 1 ÷ 5 mm board thickness brackets (2 pcs)



SPH-45 1 ÷ 45 mm board thickness brackets (2 pcs)

SOFTWARE





CONVERTERS



S-Config 2 is used for the simultaneous detection of devices in multiple Modbus RTU networks and allows user to change the configuration of most of them. For each detected device a list of its registers, which the user can modify, is displayed and also additional informations about device parameters (type, address in the network, etc.).
S-Config software can be downloaded from SIMEX website at www.simex.pl

SimCorder Soft is a visualisation application created to facilitate work with advanced networks of the SIMEX devices, for acquisition, visualisation, reporting, archiving, exporting and printing of measurement data from all network devices. You can download measurements from the devices automatically or on demand. There is a possibility of immediate notification about emergency states via SMS or e-mail, which will often allow to quickly resolve an arising problem while avoiding long and expensive stoppages. You can view the measurement data, emergency states and configuration via the internet at every time.

The **SRS-U4** converter is designed to connect a USB host to slave devices equipped with RS-485 interface. The PC with special software can be used as a host. The **SRS-U4** unit guarantees full galvanic isolation between USB and RS-485 circuits. The converter can work with any devices equipped with RS-485 interface and contains integrated circuit which supports USB 1.1 and USB 2.0 standards. The main purpose is connection of PC host computer with industrial data acquisition and visualisation systems based on RS-485 interface.

The **SRS-U4** can be also manufactured with DIN mounting adaptor.

