

"ESA Control" Ltd



## DIGITAL SPEED MEASURING CONTROLLERS

Bulgaria  
5300 Gabrovo  
3, Stancionna str.  
Tel./fax: +359 66 860543  
E-mail: [office@esa-control.com](mailto:office@esa-control.com)  
Site: <http://www.esa-control.com>

### Features

The digital speedometer SMD6-1M is meant for measuring the lineal speed "V" of cloths, pipes and other materials, that in their movement whirl a check-roller, from which by certain sensor electric impulses are sent to the input of the speedometer. For counting the speed, in the memory of the speedometer is given the coefficient "C", which presents the real distance between two impulses in the input of the speedometer. The coefficient "C" is assigned in centimeters.



Type parameters		
Type	Supply voltage	Consumption
SMD6-1M / 220V	220VAC $\pm 10\%$	16mA (4W)
SMD6-1M / 12-24V	11 $\pm$ 31 VDC 11 $\pm$ 27 VAC	85mA (2W)

### Technical parameters

LED indicator (green/red), 6 digits	h=10mm (height)
Range of measurement, V	0,01...9999,99 m/min
Supply voltage, Us	220VAC / 12÷24V ac/dc
Power consumption, P	4W (16mA) / 2W (85mA)
Frequency range of input impulses, f	0,05Hz...1kHz (11kHz)
Measurement error	$\pm 0,05\%$
Operating temperature range, Ta	-20°...+50° C
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm

Energy-independent memory for the programmable parameters.  
Input - it is meant to operate with sensor type NPN (fig.1) or switch K1 (fig.2).  
It is provided constant voltage 12VDC (40mA) for sensor's supply.

### Programmable parameter

Coefficient, C (cm)	0.01 $\div$ 999.99
---------------------	--------------------

### Schemes of connection

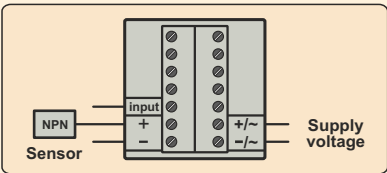


fig.1

Connecting NPN type sensor

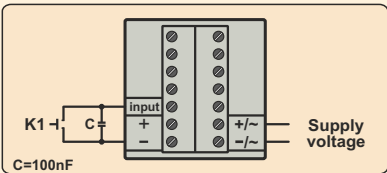


fig.2

Connecting a mechanical key "K1"

## Features

The digital speedometer SMD6-1S is meant for measuring the lineal speed "V" of cloths, pipes and other materials, that in their movement whirl a check-roller, from which by certain sensor electric impulses are sent to the input of the speedometer. For counting the speed, in the memory of the speedometer is given the coefficient "C", which presents the real distance between two impulses in the input of the speedometer. The coefficient "C" is assigned in millimeters.



Type parameters		
Type	Supply voltage	Consumption
SMD6-1S / 220V	220VAC $\pm 10\%$	16mA (4W)
SMD6-1S / 12-24V	11 $\pm$ 31 VDC 11 $\pm$ 27 VAC	85mA (2W)

## Technical parameters

- LED indicator (green/red), 6 digits

Range of measurement, V

Supply voltage, Us

Power consumption, P

Frequency range of input impulses, f

Measurement error

Operating temperature range, Ta

Degree of protection

Joining

Sizes
- h=10mm (height)

0,001...999,999 m/s

220VAC / 12÷24V ac/dc

4W (16mA) / 2W (85mA)

0,05Hz...1kHz (11kHz)

$\pm 0,05\%$

-20°...+50° C

IP40

Terminal

95x49x113mm

Energy-independent memory for the programmable parameters.  
Input - it is meant to operate with sensor type NPN (fig.1) or switch K1 (fig.2).  
It is provided constant voltage 12VDC (40mA) for sensor's supply.

## Programmable parameter

- Coefficient, C (mm)
- 0.1  $\div$  9999.9

## Schemes of connection

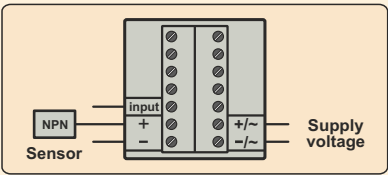


fig.1

Connecting NPN type sensor

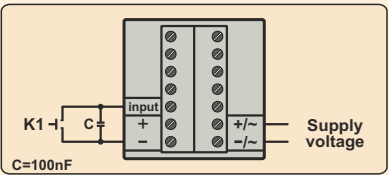


fig.2

Connecting a mechanical key "K1"

## Features

The digital speedometer SMD6-2M is meant for measuring and controlling the lineal speed "V" of cloths, pipes and other materials, that in their movement whirl a check-roller, from which by certain sensor electric impulses are sent to the input of the speedometer. For counting the speed, in the memory of the speedometer is given the coefficient "C", which presents the real distance between two impulses in the input of the speedometer. The coefficient "C" is assigned in centimeters. Two speed limits V1 (down) and V2 (up) can be set, upon reaching which the relevant output relay is activated.



Type parameters		
Type	Supply voltage	Consumption
SMD6-2M / 220V	220VAC $\pm 10\%$	16mA (4W)
SMD6-2M / 12-24V	11 $\pm$ 31 VDC 11 $\pm$ 27 VAC	125mA (3W)

## Technical parameters

LED indicator (green/red), 6 digits	h=10mm (height)
Range of measurement, V	0,01...9999,99 m/min
Supply voltage, Us	220VAC / 12 $\pm$ 24V ac/dc
Power consumption, P	4W (16mA) / 3W (125mA)
Output: Relay-1 (Down), Relay-2 (Up)	4A/220VAC, 2x(NO+NC)
Frequency range of input impulses, f	0,05Hz...1kHz (11kHz)
Measurement error	$\pm 0,05\%$
Operating temperature range, Ta	-20 $^{\circ}$ ...+50 $^{\circ}$ C
Degree of protection	IP40
Joining	Terminal
Sizes	95x49x113mm

Energy-independent memory for the programmable parameters.  
Input - it is meant to operate with sensor type NPN (fig.1) or switch K1 (fig.2).  
It is provided constant voltage 12VDC (40mA) for sensor's supply.

## Programmable parameters

Limit of speed, V1 (m/min)	0.01 $\pm$ 9999.99
Limit of speed, V2 (m/min)	0.01 $\pm$ 9999.99
Coefficient, C (cm)	0.01 $\pm$ 999.99

## Schemes of connection

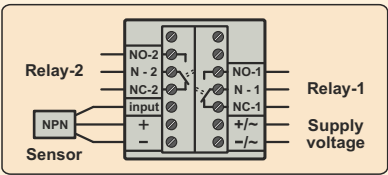


fig.1

Connecting NPN type sensor

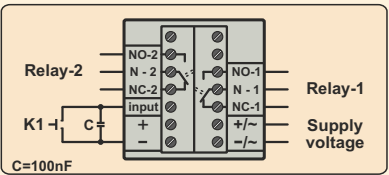


fig.2

Connecting a mechanical key "K1"

## Features

The digital speedometer SMD6-2S is meant for measuring and controlling the lineal speed "V" of cloths, pipes and other materials, that in their movement whirl a check-roller, from which by certain sensor electric impulses are sent to the input of the speedometer. For counting the speed, in the memory of the speedometer is given the coefficient "C", which presents the real distance between two impulses in the input of the speedometer. The coefficient "C" is assigned in millimeters. Two speed limits V1 (down) and V2 (up) can be set, upon reaching which the relevant output relay is activated.



Type parameters		
Type	Supply voltage	Consumption
SMD6-2S / 220V	220VAC $\pm 10\%$	16mA (4W)
SMD6-2S / 12-24V	11 $\pm$ 31 VDC 11 $\pm$ 27 VAC	125mA (3W)

## Technical parameters

LED indicator (green/red), 6 digits

Range of measurement, V

Supply voltage, Us

Power consumption, P

Output: Relay-1 (Down), Relay-2 (Up)

Frequency range of input impulses, f

Measurement error

Operating temperature range, Ta

Degree of protection

Joining

Sizes

h=10mm (height)

0,001...999,999 m/s

220VAC / 12 $\pm$ 24V ac/dc

4W (16mA) / 3W (125mA)

4A/220VAC, 2x(NO+NC)

0,05Hz...1kHz (11kHz)

$\pm 0,05\%$

-20 $^{\circ}$ ...+50 $^{\circ}$  C

IP40

Terminal

95x49x113mm

Energy-independent memory for the programmable parameters.

Input - it is meant to operate with sensor type NPN (fig.1) or switch K1 (fig.2).

It is provided constant voltage 12VDC (40mA) for sensor's supply.

## Programmable parameters

Limit of speed, V1 (m/s)

0.001  $\div$  999.999

Limit of speed, V2 (m/s)

0.001  $\div$  999.999

Coefficient, C (mm)

0.1  $\div$  9999.9

## Schemes of connection

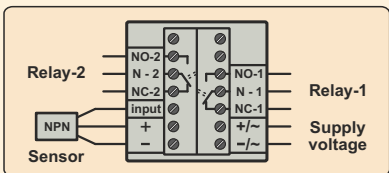


fig.1

Connecting NPN type sensor

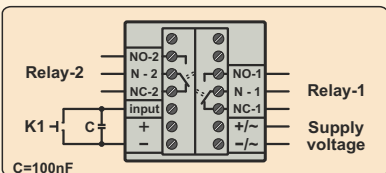


fig.2

Connecting a mechanical key "K1"

