

# Controller

ELSK103-13 and ELSK103-18



- solid state electronics
- infinitely metering
- ergonomic design
- robust enclosure

## 1 Description

### 1.1 Generals

The ELSK103-13\*\*\* and ELSK103-18\*\*\* units are used to control one or other of two proportional solenoids. It consists of the ESSK 103-91\*\*\* card, fitted in a Macrolon housing. The housing is provided with a front plate with a three-position switch, a green LED and control signal potentiometer with indicator knob. With the ON/OFF switch in the neutral

position, there is no power supply to the amplifier. In the two working positions, the respective power output is active. The output current varies linearly with the angle of rotation of the control signal potentiometer. The green LED lights when the switch is in either of the two working positions.

### 1.2 Application examples

- Floor-conveyor drive
- Belt drive
- Auger drive
- Conveyors, general

## 2 Technical data

General characteristics	Description, value, unit
Power supply	12 V ...30 V DC, smoothed Ripple < 10%
Rotation angle of pot. knob	270°
Maximum permissible output current ( $I_{zul}$ )	2,5 A
Adjustable maximum current ( $I_{max}$ )	0,5 A ... 2,5 A
Operating temperature	-20 °C ... +50 °C
Dimensions	approx. 120 mm x 160 mm x 55 mm (Macrolon housing)
Weight	ca. 400 g
Enclosure protection	IP41
Dither frequency	factory set at 40 Hz (square wave)

Reference: 100-P-700014-EN-09

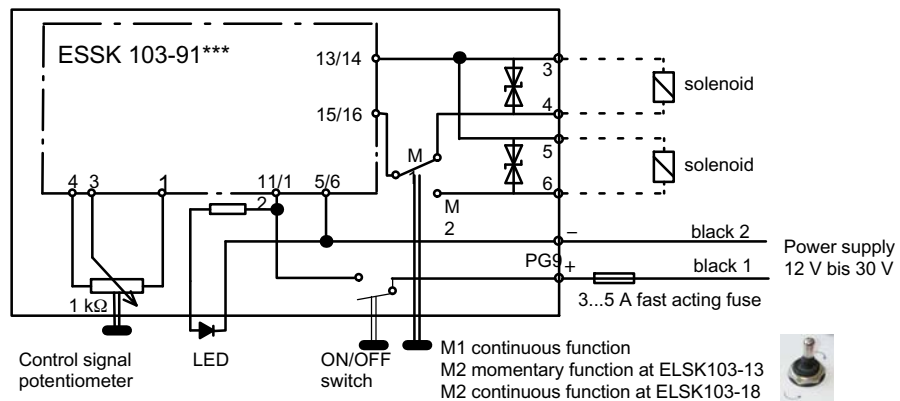
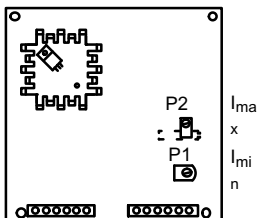
General characteristics	Description, value, unit
Adjustable minimum current ( $I_{min}$ )	$(0 \dots 0,68) \times I_{max}$
Power supply connection	PG 9 cable gland with 2m cable (2x1 mm <sup>2</sup> )
Coil connections	6-pole skt. insert Sta 6 F Löt (solder) with bulkhead housing H-A3 Ag
Notable features	<ul style="list-style-type: none"> <li>- the power supply input is reverse polarity-protected</li> <li>- the amplifier switches off automatically for the duration of excessive coil current (coil short circuit)</li> </ul>
Cable length and section	for 1 mm <sup>2</sup> section wire, max. cable length is 10 metres

## 3 Commissioning

1. Connect the controller in accordance with the connection diagram. Throw the switch into one of its working positions.
  2. Set the control signal potentiometer to maximum. Using trim potentiometer P2, and while increasing the output, set the required maximum current (the coil current must not exceed 2.5 A).
  3. Set the control signal potentiometer to minimum. Using trim potentiometer P1, and while decreasing the output, set the required minimum current.
  4. Check the minimum and maximum speeds and fine tune as necessary.
- The potentiometers that are sealed with coloured spots are pre-set in the factory.

## 4 Connection diagram

Location of potentiometers P1 and P2 on the card



## 5 Accessories


To connect the solenoids, type GDM309 connector plugs are available. If control malfunctions occur as a result of long solenoid leads, then type GDM209D connector plugs should be used inserad. For a description of these accessories, see data sheet P70010, 'Electronic Accessories'.

Description	Part No.
Coil connector plug GDM309	100.064970
Coil connector plug GDM209D	100.014130
Fuse, 5 A	100.606938
Fuse holder (line mounting)	100.607349
Plug insert Sta 6 F Löt	100.209336
Line housing H-A 3 Tgv for plug insert	100.209472

## 6 Service parts

Description	Part No.
Macrolon housing no. 3 120 x 160 x 55 mm	100.218767
Front plate	100.214784
Cable gland PG 9	100.601550
Retaining nut PG 9	100.601554
Socket insert H-A3 Sta 6 S Löt	100.209471
Bulkhead housing H-A 3 Ag for connector application	100.607297
Potentiometer 1 kΩ	100.214662
Potentiometer indicator knob	100.604397
Switch; two-pole ON OFF MOM	100.607681
ON-MON switch (for ELSK103-13***)	100.609738
ON-ON switch (for ELSK103-18***)	100.607703
Rubberswitch cover	100.607319
Quenching diode BZW 06-28B	100.607278
LED, green, 5 mm	100.606555
In-line resistor 1kΩ, 1 W	100.607205
ESSK 103-91***	100.014781
Cable 2 x 1 mm <sup>2</sup> , 2 m	100.604380

## 7 Ordering code

E L S K 1 0 3 - 1 3 * * *	
Controller	
Switch M1 - M2	
	Activation piloting 2 proportional solenoid, mutualy locked
	rest / tentative = 13 (Part No.: 100.018265)
	rest / rest = 18 (Part No.: 100.031605)
Supply voltage: direct voltage from 12V to 30V	

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