

# SeGMo-Assist

Nominal value display with  
CANopen interface

**GEL SEHMI**

*Technical information*

*Version 2021-03*

## General

- Display supports the operator, e.g. during format or tool changes

## Features

- Plastic housing, ABS
- Operating temperature 0 °C to +60 °C
- Bright graphical display
  - Presentation of customer-specific pictograms
- Degree of protection IP 65
- CAN bus with CANopen protocol<sup>(1)</sup>

## Advantages

- Insensitive to EMC interference
- Easy wiring
- Extremely compact for confined installation situations
- Pictograms can be programmed as required for straightforward user navigation
- Maintenance-free

## Fields of application

- Packaging machines
- Food and bottling lines
- Wood and plastic working machines
- General mechanical and plant engineering



<sup>(1)</sup> Other interfaces via the modular SeGMo-Box are in planning

*Right to technical changes and errors reserved.*

# Description of SeGMo system

## SeGMo system

The SeGMo system is suitable for the efficient integration of several positioning drives in a machine or plant. The system consists of the following components:

- SeGMo-Positioning:  
Positioning drive for fully automatic format adjustment
- SeGMo-Motion:  
Positioning drive for cyclic operation
- SeGMo-Box:  
decentral control unit for up to 5 drives
- Modular SeGMo-Box:  
decentral control unit for up to 17 drives
- SeGMo-Assist:  
Position display for manual adjustment processes
- SeGMo-Connect:  
Single cable concept (hybrid cable suitable for drag chain)
- SeGMo-Lib:  
Ready-made function blocks for integration in the machine control system
- SeGMo-Support Tool:  
Software for advanced commissioning and configuration
- SeGMo-Web  
Software for monitoring the modular SeGMo-Box in real time
- SeGMo-ImgConv Tool  
Tool for converting image files into pictograms for SeGMo-Assist

## SeGMo-Box:

The usage of SeGMo-Box and SeGMo-Connect significantly reduces the cabling effort for the positioning drives. Instead of the usual two separate cables for internal bus communication and a third cable to supply power to the positioning drives, only **ONE** hybrid cable suitable for use in drag chains is connected. In the maximum configuration with 5 positioning drives connected, the number of cables typically reduces from 15 to 5 due to SeGMo-Connect. With the aid of the SeGMo-Box the overall system offers a high degree of flexibility during integration, as it supports all common communication interfaces.

## Modular SeGMo-Box:

Every modular SeGMo-Box consists of a basic housing with plug-in modules that can be fitted individually. By means of the combination of basic housings, up to 17 positioning drives can be connected. The power for the positioning drive motors (power circuit voltage) can be supplied separately for each positioning drive.

## SeGMo-Motion:

The positioning drives are complete mechatronic systems with a battery-less multiturn absolute rotary encoder, gear and motor as well as integrated power and control electronics.

## SeGMo-Positioning:

The positioning drives are complete mechatronic systems with a battery-less multiturn absolute rotary encoder, gear and motor as well as integrated power and control electronics.

These drives are also available for standalone use. With nominal torques of up to 15 Nm, they cover the capacity range typical for secondary axes.

## SeGMo-Assist:

The position displays make manual adjustment processes easier by means of the indication of nominal and actual positions. Variants are available for rotary and linear applications. A further version without measuring system assists the operator, e.g., while changing the format part or tool.

## SeGMo-Connect:

The ready-to-use hybrid cables minimise the cabling effort. The hybrid cable is designed for flexible application in drag chains. It is available in food grade and halogen-free variants and as a cULus recognised component.



# Type code and accessories SeGMo-Assist

The nominal value display forms part of the SeGMo-Assist product group and is a component of the SeGMo system.

## Type code

	<b>Approval</b>
<b>N</b>	Standard
	<b>Communication interface</b>
<b>CO</b>	CAN bus with CANopen protocol <sup>(1)</sup>
<b>SEHMI</b>	--

## Accessories

Description	Item no.
ZB cable CAN bus 2 m M12	ZBSGX01
ZB cable CAN bus 5 m M12	ZBSGX02
ZB cable CAN bus 10 m M12	ZBSGX03
ZB cable CAN bus 2 m M12 flying lead	ZBSGX04
ZB cable CAN bus 10 m M12 flying lead	ZBSGX05
ZB Y-distributor CAN bus M12 BU-BU/ST	ZBSGX06
ZB terminating resistor CAN bus M12	ZBSGX07

<sup>(1)</sup> Other interfaces via the modular SeGMo-Box are in planning

# GEL SEHMI — nominal value display

## Description

The GEL SEHMI is intended to be used for the display of the nominal value for shafts and spindles. It is mounted close to a shaft to be adjusted using two screws and connected directly to a plant control system via the communication interface.

## Connection

The nominal value display is operated with a supply voltage of 24 V DC. The communication interface takes over the bus communication and the supply of power to the nominal value display. Y-distributors, interface cables and terminating resistors are required to connect the nominal value display to the plant control system.

The position display requires the connection of a function earth wire. The connection is made using a 6.3 mm flat connector. We recommend a wire cross-section of 4 mm<sup>2</sup>.

## Displays and controls

The nominal value display is equipped with a graphic display.

The following values can be read:

- Nominal position
- Operating states

Diagnostic displays assist the user during troubleshooting.

The menus are navigated using three membrane buttons underneath the display.

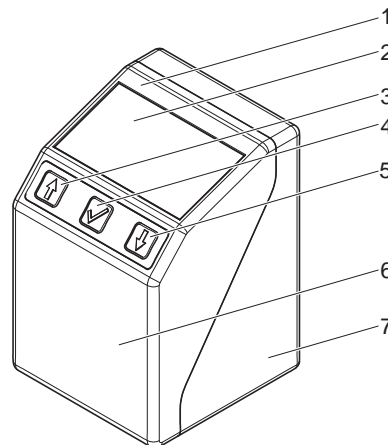
## Pictograms




The SeGMo-ImgConv tool makes it possible to design your own pictograms for use on the display. This feature makes user navigation more straightforward.

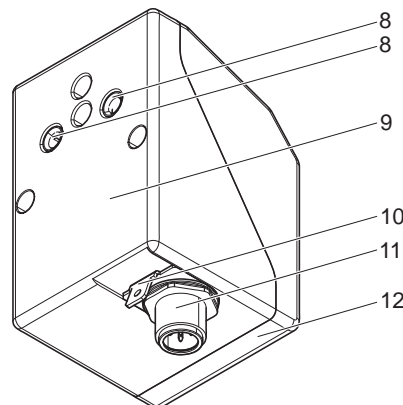
## Mounting

The display is fastened using two screws M5. We recommend greasing the screw threads before screwing in. The maximum screw depth of the nominal value display is 7 mm.

## Parts named



- 1 Top
- 2 Display
- 3 "Up arrow" navigation button 
- 4 Confirmation button 
- 5 "Down arrow" navigation button 
- 6 Front
- 7 Housing



- 8 Thread bores M5 for fastening
- 9 Rear
- 10 Function earth (flat connector, 6.3 mm)
- 11 Communication interface and supply voltage
- 12 Underside

# GEL SEHMI — nominal value display

## Technical data GEL SEHMIN<sub>□□</sub>


Electrical data	
Supply voltage $U_B$ (Polarity reversal protection, overvoltage protection)	+24 V DC -20 % +25 %
Current consumption	Approx. 50 mA at 24 V DC
Power consumption	Requirements on the power supply unit: Maximum supply power: 100 VA
Communication interface	CAN bus with CANopen protocol, no electrical isolation
Mechanical data	
Housing material	Plastic ABS, anthracite
Viewing window material	Plastic, impact protection
Dimensions (not including connector)	48 mm × 50 mm × 70 mm
Weight	90 g
Connections	
Communication interface and supply voltage	5-pin male connector M12, A-coded
Function earth	Flat connector, 6.3 mm
Controls	
Push-button	3 membrane buttons
Indicators	
Display	OLED 1.54" monochrome, yellow (128 × 64 pixels, graphic) Language: English
Ambient data	
Operating temperature range	0 °C to +60 °C
Storage temperature range	-20 °C to +80 °C
Max. relative humidity of air	Condensation not permitted
Dielectric strength	500 V AC; as per DIN EN 61439-1:2012-06
EMC <sup>(1)</sup>	DIN EN 61326-1:2013-07 Class B device with immunity requirements for industrial environments
Degree of protection	IP 65; as per DIN EN 60529:2014-09
Vibration resistance	1 to 100 m/s <sup>2</sup> (5 to 15 Hz); 100 m/s <sup>2</sup> (15 to 159 Hz); as per DIN EN 60068-2-6:2008-10
Shock resistance	800 m/s <sup>2</sup> , 6 ms, as per DIN EN 60068-2-27:2010-02

<sup>(1)</sup> Use only screened cables.

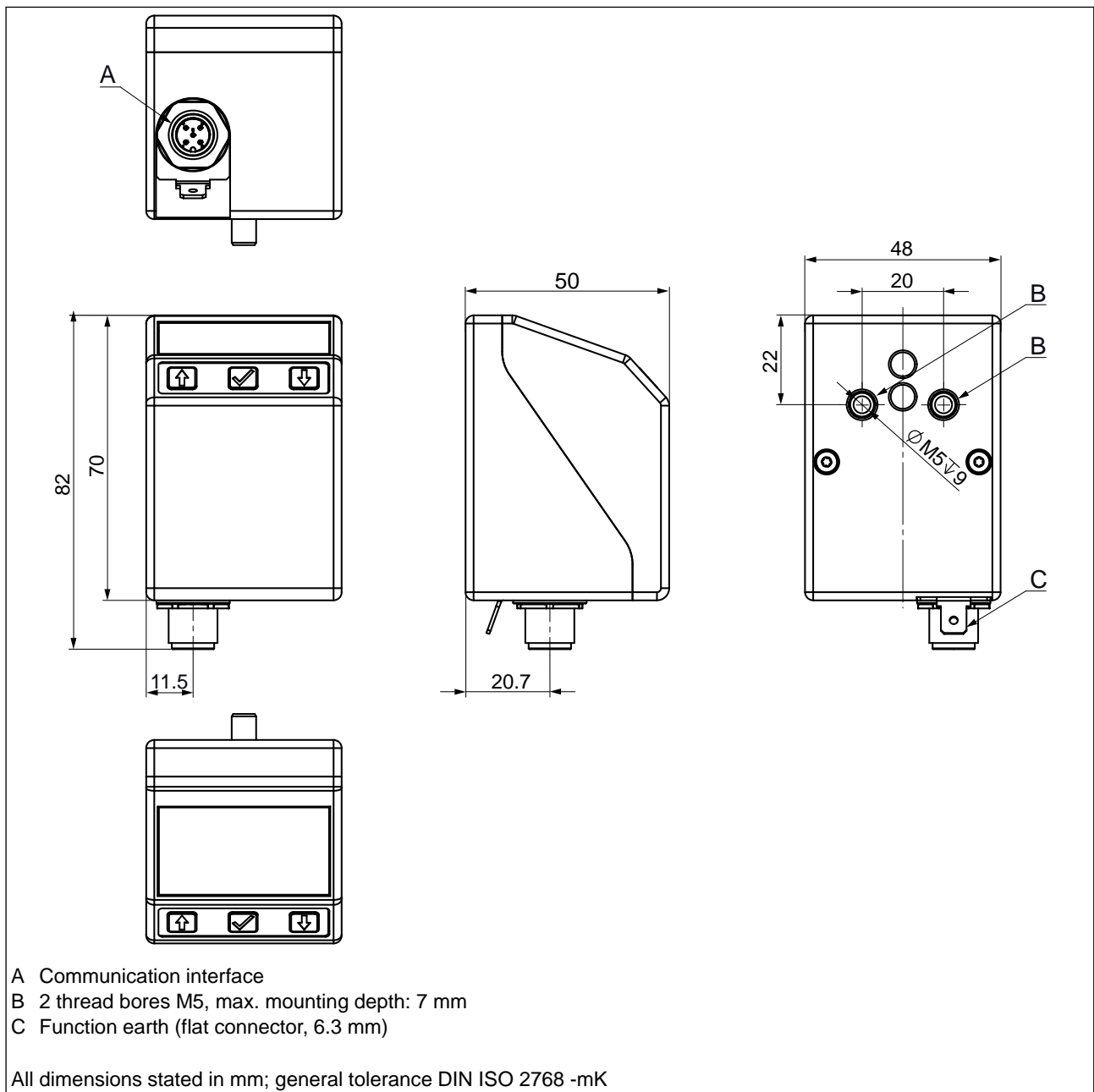
# GEL SEHMI — nominal value display

## Connection SEHMI\_CO

### CAN bus communication interface and supply voltage

Male connector, M12 A-coded (view of connector contact side)	Pin	Signal identifier
	1	Function earth (cable screen)
	2	$U_B$
	3	CAN GND
	4	CAN high
	5	CAN low
	Connector housing	Function earth

### Dimensional drawing GEL SEHMI\_CO



**Notes:**



Lenord, Bauer & Co. GmbH  
Dohlenstraße 32  
46145 Oberhausen, Germany  
Phone: +49 208 9963-0  
Fax: +49 208 676292  
Internet: [www.lenord.com](http://www.lenord.com)  
E-Mail: [info@lenord.de](mailto:info@lenord.de)

Right to technical changes and errors reserved.