

General

- Display indicator supports the operator for example, during format/tool changes

Features

- Plastic housing, ABS
- Operating temperature range 0 °C to +60 °C
- Bright graphical display
 - Representation of customized pictograms
- Degree of protection IP 65
- CAN bus with CANopen protocol or IO Link⁽¹⁾

Advantages

- Not sensitive to EMC interference
- Simple cabling
- Extremely compact for confined installation situations
- Freely programmable pictograms for easy user navigation
- Maintenance-free electrical parts

Fields of application

- Packaging machines
- Food and bottling lines
- Wood and plastic processing machines
- General mechanical and systems engineering



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⁽¹⁾ Other communication interfaces via the modular SeGMO-Box

Right to technical changes and errors reserved.

Description of SeGMo system

SeGMo-System

The SeGMo-System is suitable for efficient integration of several positioning drives and positioning displays in a machine or a system. The system comprises the following components:

- SeGMo-Positioning:
Positioning drive for fully automatic format setting
- SeGMo-Motion:
Positioning drive for cyclic operation
- SeGMo-Box:
Decentral control unit for up to 5 positioning drives
- Modular SeGMo-Box:
decentral control unit for up to 17 positioning drives or up to 48 positioning displays
- SeGMo-Assist:
Position display for manual adjustment procedures
- SeGMo-Connect:
Single cable concept (hybrid cable suitable for drag chain)
- SeGMo-Lib:
Prefabricated function blocks for integration in the higher level control system
- SeGMo-Support Tool:
Software for extended commissioning and configuration
- SeGMo-Web:
Software for real-time transmission of the modular SeGMo-Box
- SeGMo-ImgConv Tool:
Tool for converting image files into pictograms for SeGMo-Assist

SeGMo-Positioning:

The positioning drives are complete mechatronic systems with a batteryless multiturn encoder, gear and motor as well as integrated power and control electronics. We also offer these items for standalone use. With nominal torques of up to 15 Nm, they cover the typical power range for secondary axes.

SeGMo-Motion:

The positioning drives are complete mechatronic systems with gear and motor as well as integrated power and control electronics for cyclic operation.

SeGMo-Box:

Up to 5 positioning drives can be connected to the SeGMo-Box. The connection of position displays is not provided. The SeGMo-Box supports all common fieldbus and Industrial Ethernet communication interfaces.

Modular SeGMo-Box:

Every modular SeGMo-Box comprises a basic housing with individually equippable plug-in modules. By combining basic housings, up to 17 positioning drives or up to 48 position displays can be connected. A combination of positioning drives and position displays on a modular SeGMo-Box is possible. The power supply can be provided separately for each equipped plug-in module. The modular SeGMo-Box supports all common Industrial Ethernet communication interfaces.

SeGMo-Assist:

The position displays facilitate manual adjustment procedures by displaying nominal and actual positions. Variants are available for rotary and linear applications. Another variant without a measuring system supports the operator, for example, when changing format parts or tools.

SeGMo-Connect:

By using the positioning drives with a SeGMo-Box the cabling effort is considerably reduced by SeGMo-Connect. Instead of the usual two separate cables for internal bus communication and a third cable for power supply to the positioning drives, only **ONE** hybrid cable is connected. In combination with the SeGMo-Box and 5 connected positioning drives, the SeGMo-Connect typically reduces the number of cables from 15 to 5.

The hybrid cable is designed for moveable use in drag chains. Its variants are food grade quality, halogen-free and available as a cULus recognized component.

SeGMo-Motion

6108



6109



SeGMo-Positioning

6110



6113



6129



SEPODR



SeGMo-Assist

SEPODL



SEHMI



SELIN



SeGMo-Box

6505B



6505A

Modular(e) SeGMo-Box

65M0

65M5



SeGMo-Assist type code and accessories

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

Type code

SEHMI	N	Approval
		Standard
		Communication interface
	CO	CAN bus with CANopen protocol ⁽¹⁾
	IL	IO Link

Connection accessories CAN bus

SeGMo-Assist

Designation	Item number:
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 open	ZBSGX04
ZB cable CAN bus 10 m M12 open	ZBSGX05
ZB T-distributor CAN bus M12	ZBSGX06
ZB Y-distributor CAN bus M12	ZBSGX09
ZB terminating resistor CAN bus M12	ZBSGX07

PORT module of the modular SeGMo-Box GEL 65M

Designation	Item number:
Input voltage (IN)	
▪ 5 × 2-pin female connectors with 4 contacts, item no: FK1263	ZB65MX03
SeGMo component (LOG/OUT/CAN)	
▪ 5 × 7-pin female connectors, item no: FK1264	ZB65MX04

Connection accessories IO Link

Designation	Item number:
ZB cable IO Link 2 m M12	ZBSGX11
ZB cable IO Link 5 m M12	ZBSGX12
ZB cable IO Link 10 m M12	ZBSGX13

⁽¹⁾ Other interfaces via the modular SeGMo-Box

GEL SEHMI — nominal value display

General description

The nominal value display shows nominal positions or operating states of machine shafts or spindles. It is mounted using two screws close to a machine shaft or spindle to be adjusted and connected to a higher level control system via the communication interface.

The nominal value display with **CO** communication interface can be connected to the modular SeGMo-Box. This allows all common Industrial Ethernet communication interfaces to be connected.

Connection

The nominal value display is operated with a supply voltage of 20 to 30 V DC. The communication interface controls bus communication and power supply to the nominal value display.

The nominal value display requires a functional ground cable to be connected. Connection is via a 6.3 mm flat connector. We recommend a wire cross section of 4 mm² [12 AWG].

Displays and controls

The nominal value display is equipped with a graphic display.

The following values can be read:

- Nominal position
- Operating status

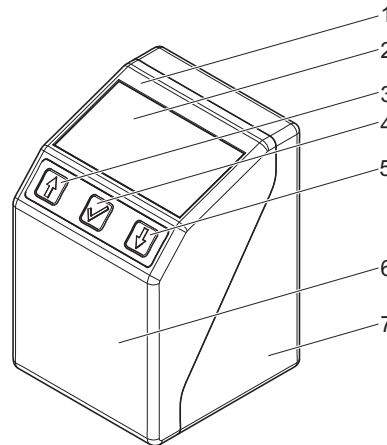
Diagnostic displays support the user in troubleshooting.

Menu navigation is via three membrane buttons below the display.

Pictograms

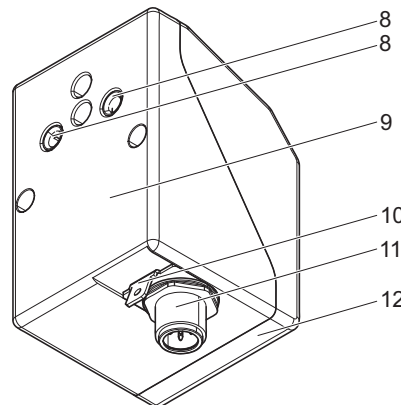
The SeGMo-ImgConv tool can be used to design your own pictograms and thus simplify user navigation. The nominal value display can store up to 40 customized pictograms.

Parts named



Top

- 1 Top
- 2 Display
- 3 Navigation button ↑
- 4 Confirmation button ✓
- 5 Navigation button ↓
- 6 Front
- 7 Housing



Underside

- 8 Thread bores M5 for the fastening
- 9 Rear side
- 10 Functional ground (flat connector 6.3 mm)
- 11 Communication interface and supply voltage
- 12 Underside

Assembly

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

GEL SEHMI — nominal value display

Technical data GEL SEHMIN_{LL}


Electrical data	
Supply voltage U_B (polarity reversal protection, overvoltage protection)	20 to 30 V DC
Current consumption	≈ 50 mA at 24 V DC
Power consumption	Power supply unit requirements: Maximum supply output: 100 VA
Communication interfaces	CAN bus with CANopen protocol, IO Link, V1.1, COM 2 = 38,4 kBaud; 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
Functional ground	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
Maximum relative air humidity	Condensation not permitted
Degree of protection	IP 65; as per DIN EN 60529:2014-09
Dielectric strength	500 V AC; as per DIN EN 61439-1:2012-06
EMC ⁽¹⁾	DIN EN 61326-1:2013-07 Class B device with immunity requirements for industrial environments
Vibration resistance	1 to 100 m/s ² (5 to 15 Hz); 100 m/s ² (15 to 159 Hz); as per DIN EN 60068-2-6:2008-10
Shock resistance	800 m/s ² , 6 ms, as per DIN EN 60068-2-27:2010-02
Approvals	
European Economic Area	Conformity in accordance with EMC Directive 2014/30/EU CE

⁽¹⁾ Only use screened connection cables for CAN-Bus (CO) communication interface.

GEL SEHMI — nominal value display


Connections

GEL SEHMI_CO: CAN bus communication interface and supply voltage

Male connector, M12 A-coded (plug-in view)	Pin	Signal identifier
	1	Functional ground (cable screen)
	2	$U_B^{(1)}$
	3	CAN-GND ⁽¹⁾
	4	CAN-High
	5	CAN-Low
	Connector housing	Functional ground

⁽¹⁾ Power supply device and power supply communication interface

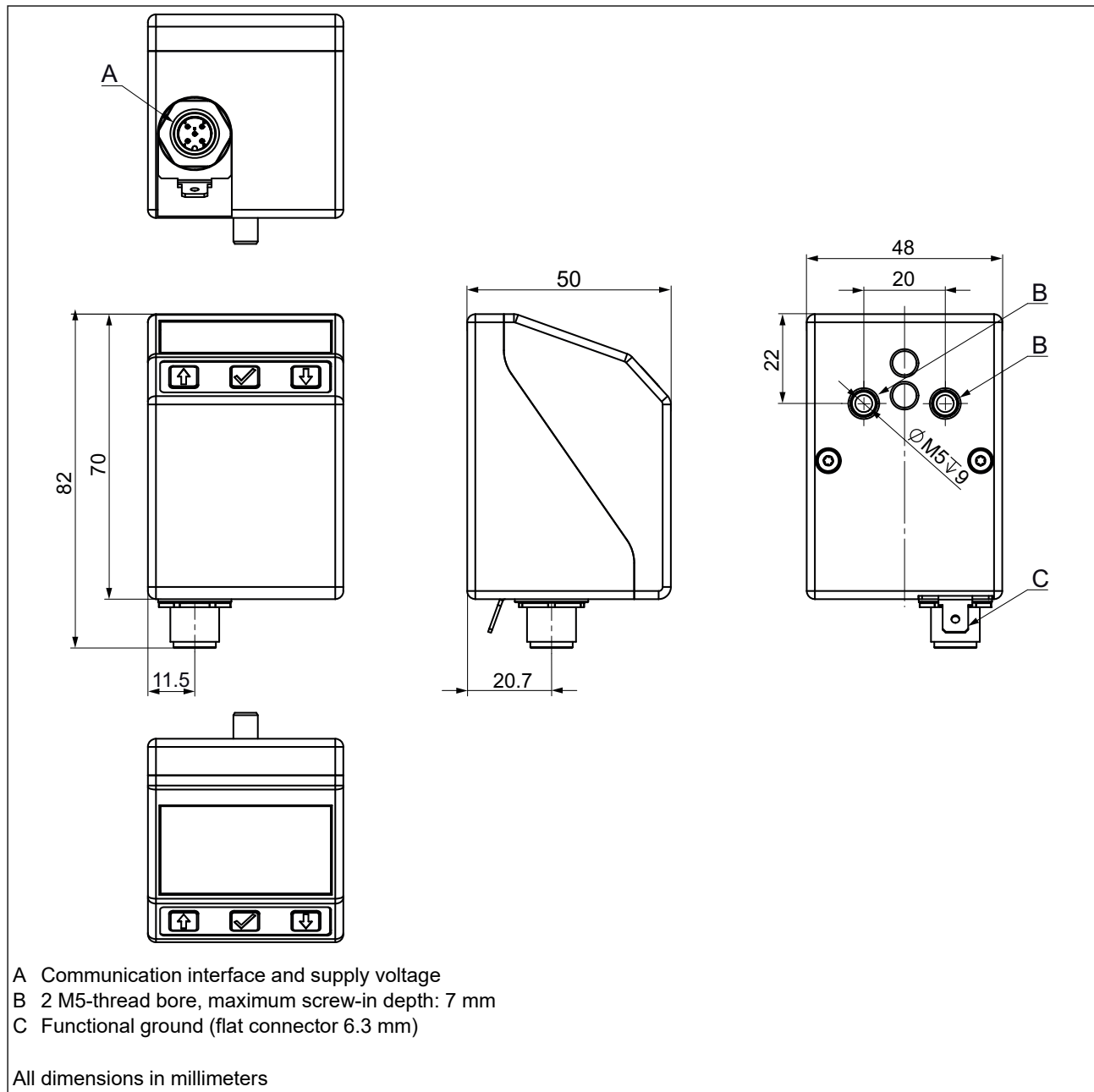
GEL SEHMI_IL: IO Link communication interface and supply voltage

Male connector, M12 A-coded (plug-in view)	Pin	Signal identifier
	1	$U_B^{(1)}$
	2	unallocated
	3	GND ⁽¹⁾
	4	IO Link C/Q
	5	unallocated
	Connector housing	Functional ground

⁽¹⁾ Power supply device and power supply communication interface

GEL SEHMI — nominal value display

Dimensional drawing GEL SEHMI_{...}



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