![ELGO ELECTRONIC logo]

Series *Z51 / Z52*

Simple single-axis and dual-axis Position Indicator
in a solid aluminium built-on housing

- Simple digital position indicators for incremental HTL encoders or ELGO sensors (e. g. LMIX, EMIX, GMIX, KMIX, SMIX, RMIX, PMIX)
- Single axis (Z51) or dual axis (Z52) variant available
- Aluminium built-on housing for mounting on a surface
- 10 mm high LED display (7 digits resp. 6 digits + sign)
- In the parameter level, the measurement unit (mm / inch) and the decimal place can be switched; further a reference value and the edge evaluation (1, 2 or 4 edges) can be set
- Absolute/incremental measurement switchover
- External 24 V (PNP) reference inputs
- Power supply voltage 24 VDC

Z51 / Z52 - *Simple single-axis and dual-axis Position Indicators*

General:

The position indicators **Z51** (1 axis) and **Z52** (2 axes) are two simple and low-cost devices which are used to visualize the output channels A and B of incremental HTL rotary encoders or magnetic ELGO measuring systems.

Advantages:

- ■ Simple and cost-effective solution
- ■ Easy-to-read 7-digit high LED display
- ■ Solid aluminium built-on housing
- ■ Simple operation and installation
- ■ Compatible with conventional HTL encoders and ELGO incremental measuring systems
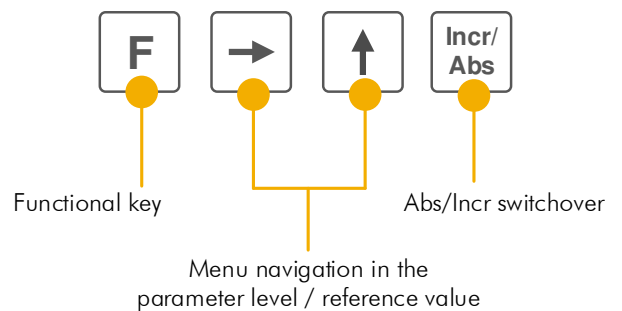
Device operation:

The operation of the device is divided into an operating level and a parameter level:

- ■ The **operator level** contains the basic functions of the indicator for normal operation.
- ■ The **parameter level** is used for settings.

All entries are made exclusively via the 4 front keys or with various key combinations.

Key functions:

Functional key

Menu navigation in the parameter level / reference value

Abs/Incr switchover

Operator level (normal operation)

F
- ■ Briefly pressing = axis selection; is indicated in the first segment as "_"

Incr/ Abs
- ■ Briefly pressing = switchover between absolute and incremental measurement
- ■ The incremental mode is indicated in the first segment as " I "

↑ + →
- ■ Briefly pressing = set to the reference value (at absolute measurement)
- ■ Press for 3 seconds = edit the reference value
- ■ Press Incr / Abs to switch back to the normal mode
- ■ After changing the reference value (P09), the value is immediately transferred to the display

F + Incr/ Abs
- ■ Press for 3 seconds = activating the parameter level

Parameter level (programming mode)

→
- ■ Briefly pressing = select decade

↑
- ■ Briefly pressing = increase decade

Incr/ Abs
- ■ Briefly pressing = save changes and jump to the next parameter

F
- ■ Input of negative values (negative sign only possible if the value is not 0)

F + Incr/ Abs
- ■ Keep pressed for 3 seconds = exiting the parameter level

Z51 / Z52 - Simple single-axis and dual-axis Position Indicators

Technical Data:

Mechanical data

Housing	Built-on housing, aluminium, black
Housing dimensions	W x H x D = 116 x 76 x 65 (60) mm
Keypad	foil with short stroke keys

Electrical data

Display	10 mm high LED display (red); positive direction: 7 digits; negative direction: 6 digits + sign
Measurement units	mm or inch
Accuracy	± 1 digit
Power supply voltage	+24 VDC ±20 %
Consumption Z51	60 mA at 24 VDC
Consumption Z52	90 mA at 24 VDC
Signal inputs	HTL, channel A and B
Input frequency	max. 20 KHz per channel

Environmental conditions

Operating temperature	0 … + 50°C
Store temperature	−20 … +80 °C
Humidity	max. 80 %, non-condensing
Protection class	IP40

Type Designation:

Z - _ _ - _ _ _ - _ _ _ - _
  A A - B B B - C C C - D

A Number of Measuring Axes
51 = Single axis version
52 = Dual axis version

B SN Number
000 = *ELGO* standard
001 = 1. special version etc.
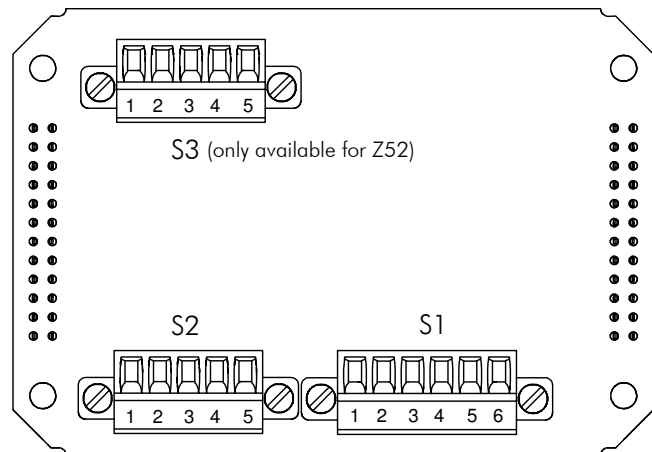
C Power Supply Voltage
024 = 24 VDC

D Signal inputs
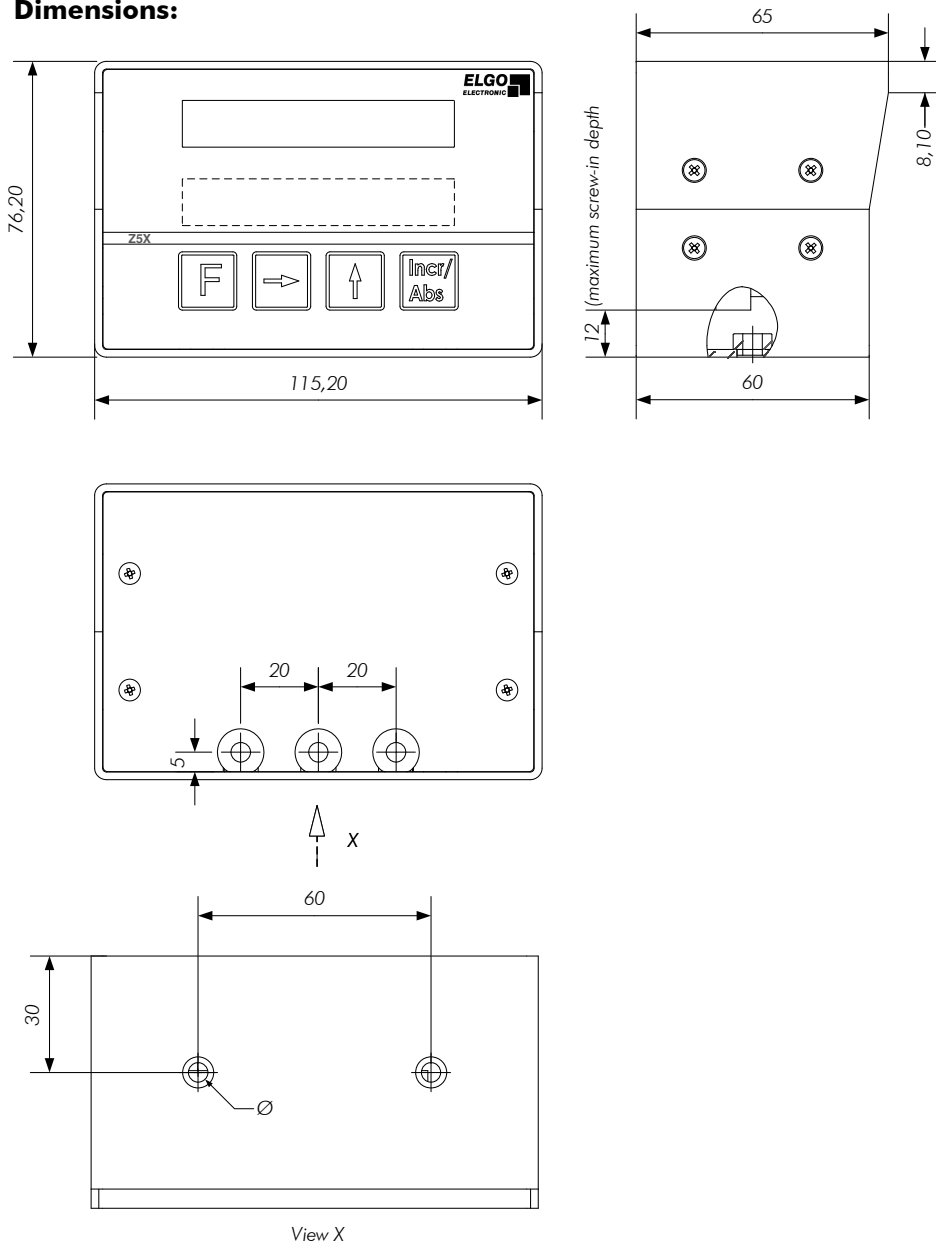0 = Channels A/B, HTL (24 V)

Connections:

The connection plugs are accessible by removing the rear panel by loosening the 4 Phillips screws:

S3 (only available for Z52)

S2   S1

Parameter list:

Parameter No.		Default	Description
P01	Counting direction	0	upwards
P02	Measurement unit	0	mm
P03	Decima place	1	1 decimal place
P06	Edge evaluation	2	4 edges
P08	Multiplication factor	1,0000	
P09	Reference value	0000,0	
P16	Default Init	-	inactive
P99	Software version	0	

Remark: P04, P05 , P07 and P10 … P15 are reserved

Pin	S1	Pin	S2 (Axis 1) / S3 (Axis 2)
1	PE / screen	1	0 V / GND
2	0 V / GND	2	+ 24 VDC out
3	+ 24 VDC power supply	3	Channel A
4	Reference axis 1	4	Channel B
5	Reference axis 2	5	Screen
6	*Reserve*		

Parameter explanations:

P01: Counting direction switchover (0 = upwards / 1 = downwards)
P02: Measurement unit selection (A = 0: mm / A = 1: inch)
P03: Setting the decimal place (0 = 1 / 1 = 0.1 / 2 = 0.01 / 3 = 0.001)
P06: Pulse edge evaluation (0 =1 edge / 1 = 2 edges / 2 = 4 edges)
P08: Multiplication factor (range: 0.0001 … 9.9999)
P09: Reference value (range: 0000.1 … 9999.9)
P16: Reset to the default parameters (0 = no init. / 1 = default init.). After entering "1", this must be confirmed with the "Incr/ Abs" key. Then switch off the unit. After switching on again, the default parameters are set.
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Dimensions:

65

8,10

(maximum screw-in depth)

76,20

115,20

12

60

20   20

5

X

60

30

∅

View X

Encoders compatible to Z51/Z52:

Conventional HTL encoders as well as almost all ELGO incremental measuring systems with HTL output signals are compatible. A small extract of compatible ELGO sensors can be seen below. Further systems and information can be found on www.elgo.de/en.

| ELGO PMIX | ELGO LMIX/EMIX | ELGO GMIX | ELGO SMIX | ELGO RMIX |

Accessories for Z51/Z52:

Order designation	Description
NG24.0	External 24 VDC power supply (primary 115/230 VAC)