

Z15/Z16/Z17 - battery powered length measuring systems

The advantages of Z15/Z16/Z17:

- Owing to battery supply completely independently
- battery status monitor
- up to 12 months continuous operation *)
- permanent data receipt
- no wiring necessary
- compact and space-saving
- complete with sensor for magnetic linear measurement
- simple operation and assembly
- wear-free measurement principle
- break representation in the inch operation possible (only Z16)

*) dependent on battery quality

Applications

Z15/16/17 are especially suited for installation on moving slides stop- and gauge systems.



Z16 Example for an application "manual stop system"

The systems Z15/Z16 and Z17 consist of a magnetic sensor, which is fix connected to a display unit over a tug chain suitable cable (length 0.1...1 m). Therefore no wiring or connectors are necessary when installing.

This units are especially suited for installation on moving slides and gauge systems.

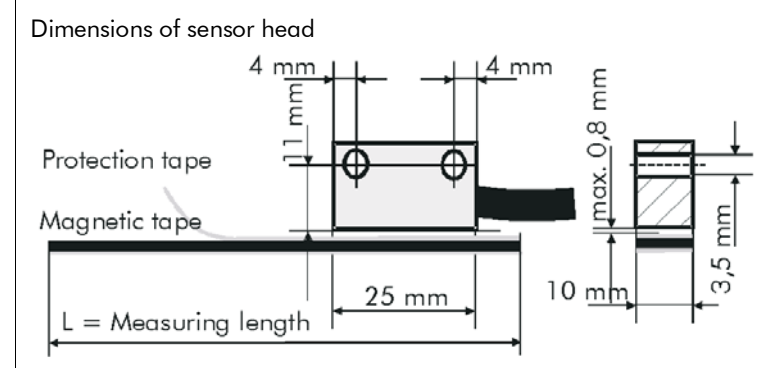
The sensor head resists to any kind of dust, dirt and water-jet and is absolutely abrasion resistant. Its protection class is IP 67.

The display unit possesses large programming possibilities (impulse scaling factor, decimal places, counting direction, incremental measurement and set function, adjustable reference value as well as a switch over for mm or inch operation).

Due to its economical LCD display Z15/Z16/Z17 can work in permanent operation up to one year, a good battery quality pre-conditioned. Data and parameter remain in case of changing battery.

The battery box is integrated on the rear side of the indicator. If the battery (commercial 1,5 V battery type "C") is then renewed, then all data remain apart from the actual value momentary and parameters receive.

The resolution of the magnet sensor amounts to 0.1 mm. Its max. operation speed is with 2.5 m/s.



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Technical specifications

Max speed	max. 2,5 m/s
Resolution	0,1 mm
System accuracy	+/- (25 + 20 x L) in mm by 20 °C
Distance	L = Measuring length max. 0.8 mm
Stock temperature	0 - 70 °C
Humidity	not condensing, max. 80 %
Operation height	max. 2000 m over NN

Display Z15 LCD-Display, 8 mm high, 6 digits with sign, battery status and measuring unit

Display Z16 LCD-Display, 11 mm high, 8 digits with sign, battery status and measuring unit

Display Z17 LCD-Display, 11 mm high, 8 digits with sign, battery status and measuring unit

Power supply	1,5 VDC (micro cell)
Consumption	< 1 mA (at 1,5 V)
Keypad	Membrane keypad
Mounting position	arbitrary
Protection class	IP 43 (installed state)
Operating temperature	+ 5...+50 °C

Mechanical data Z15
Housing Panel housing (black, plastic)
Dimensions W x H = 72 x 48 mm
Cut out W x H = 69 x 45 mm
Install depth 68 mm incl. sensor wire

Mechanical data Z16
Housing Metal, black
Dimensions W x H = 96 x 72 mm
Cut out W x H = 92 x 66 mm
Install depth 40 mm incl. sensor wire

Mechanical data Z17
Housing Plastic, black
Dimensions W x H = 96 x 48 mm
Cut out W x H = 92 x 44 mm
Install depth 43 mm incl. sensor wire

Sensor
Operating temperature 0...+ 50 °C
Cable length 0.1 up to max. 1,0 m
Bend radius min. 60 mm
Protection Class IP 67

Magnetic tape
Operating temperature 0 - 50 °C
Coefficient of extension $\alpha = 16 \times 10^{-6} K^{-1}$
Linear extension $\Delta L = L \times \alpha \times \Delta\theta$

Type designation

Please following order code:

Z15 - CCC - DDD - EE - FFFF
Z16 - CCC - DDD - EE - FFFF
Z17 - CCC - DDD - EE - FFFF

Examples: Z15-000-001-1.0
Z16-000-001-0.5
Z17-000-001-0.5

C Version
000 Elgo standard
001 1. Customer specified version

D Supply
001 1.5 VDC (Battery operation)

E Length of sensor wire
0.1 0.1 m
... up to
1.0 max. 1.0 m

F Options
-N without housing

Magnetic tape

MB20.25 - _ _ . _ _
AA.A

Example: MB20.25-01.0
MB20.25-32.0

A Magnetic tape
01.0 1,0 m (minimum length)
32.0 32,0 m (maximum length)

Accessories

MW-Z16 Assembly mounting angle for Z16
MB2025 Magnetic tape, pole division 2,5 mm
FS2025 Guide rail with MB2025
FW2060 Guide carriage for sensor



Z15, Z16 and Z17 Series

The complete battery powered length measuring systems



Positioning- and
Length measuring systems
ELGO Electric GmbH