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
- fraction of inches possible (Z16 and Z17 only)

*) 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.

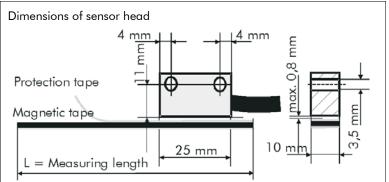
The display unit possesses large programming possibilities (impulse scaling factor, decimal places, counting direction, incremental measurement and set function, adjustable reference value as well as a switch over for mm or inch operation).

Due to its economical LCD display Z15/Z16/Z17 can work in permanent operation up to one year, a good battery quality preconditioned. 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. 2,5 m/s Max speed Resolution 0.1 mm $+/-(25 + 20 \times L)$ System accuracy in mm by 20 °C L = Measuring length Distance max. 0.8 mm

0 - 70 °C Stock temperature

Humidity not condensing, max. 80 % Operation height max. 2000 m over NN

LCD-Display, 8 mm high, Display Z15

6 digits with sign, battery status and measuring unit

LCD-Display, 11 mm high, Display Z16

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) < 1 mA (at 1,5 V)Consumption Membrane keypad Keypad Mounting position arbitrary Protection class IP 43 (installed state)

Operating temperature + 5...+50 °C

Mechanical data Z15

Housing Panel housing (black, plastic))

Dimensions $W \times H = 72 \times 48 \text{ mm}$ Cut out W x H = 69 x 45 mmInstall depth 68 mm incl. sensor wire

Mechanical data Z16

Metal, black Housing $W \times H = 96 \times 72 \text{ mm}$ **Dimensions** $W \times H = 92 \times 66 \text{ mm}$ Cut out

Install depth 40 mm incl. sensor wire Mechanical data Z17 Plastic, black Housing W x H = 96 x 48 mm

Dimensions $W \times H = 92 \times 44 \text{ mm}$ Cut out 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 IP 67 **Protection Class**

Magnetic tape

Z15-Z16-Z17-E_48-03

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

Type designation

Please following order code:

Z15 - C C C - D D D - E E - F F F F Z16 - C C C - D D D - E E - F F F F

Z17 - C C C - D D D - E E - F F F F

Examples: Z15-000-001-1.0

Z16-000-001-0.5 Z17-000-001-0.5

C Version

000 Elgo standard

001 1. Costumer specified version

D Supply

001 1.5 VDC (Battery operation)

E Length of sensor wire

0.1 0.1 m **u**p to max. 1.0 m 1.0

F Options

-N without housing

Magnetic tape

MB20.25 - _ _ . _ AA.A

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

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

Subject to modifications - © ELGO Electric GmbH 2003

FS2025 Guide rail with MB2025 FW2060 Guide carriage for sensor















Z15, Z16 and Z17 Series

The complete battery powered length measuring systems