

AZ17E

Battery powered Position Indicator with Absolute Encoder



- After setting the zero point no further referencing required
- Magnetic sensors for measuring lengths up to 8 meters available
- 7 digit LCD display with sign, measurement units, special characters and ° symbol for angular measurements
- Numerous setting options, e. g. multiplication factor, counting direction and decimal place
- Automatic power safe mode (Auto-Power-Off/On)
- System resolution 0.1 mm
- Display mode for measurement units mm / m / Inch / °
- Fraction display in Inch mode possible
- Adjustable reference value and 3 tool offsets
- Relative / absolute measurement switchover
- Fast and easy installation by snap-in housing
- Sensor cables lengths from 0.1 up to 20 m possible
- No connections or wiring required
- Predestined for mounting on movable machine parts, e. g. slide carriages, stop systems or guide units

AZ17E - Battery powered Position Indicator with Absolute Encoder

General:

AZ17E consists of an absolute linear encoder which is combined with a display unit. For linear measurement, a coded magnetic tape is glued along the distance to be measured (up to 8 m possible). The magnetic tapes supplies the necessary information (current position) to the absolute sensor. The sensor is guided contactless and absolutely wear-free over the magnetic tape. Thanks to the absolute measurement, no further referencing is necessary after setting the zero point once.

Sensor Variants (accessorial parts):

Two different sensor types are available for AZ17E. Standardly the AZS-100 sensor is used, which covers measuring distances up to 8 meters. For shorter distances up to 4 meters the smaller AZS-50* sensor type can be used which is available as an option. Both types protected by IP67 and thus resistant to dust, dirt and water.

*) on request

To connect the drag chain suitable signal cable to the indicator, a pluggable RJ45 connector is used.

Power Supply:

Due to the battery power supply, no wiring is required, which makes the AZ17E system particularly suitable for mounting on movable carriages and stop systems. Instead of the battery case on the rear of the position indicator, a pluggable screw terminal is optionally available, which can be used to supply the device with a 1.5 resp. 3 VDC voltage or external batteries. External battery holders can be found in the table "Accessories" (see last page).

Display Versions:

Two different LCD display types are available for the AZ17E position indicator:

- Standardly the unit is equipped with a 7 digit LCD with 12.6 mm high main segments.
- When order option L1 (see Type Designation), the unit is equipped with a 7 digit LCD with 16.1 mm high main segments. Please note: Due to the larger main segments, this versions allows no fraction display.

Display, Programming and Interface:

The display unit, which is equipped with a two-line LCD display, offers a wide range of parameterization options and can easily be adapted to the respective application. The parameters are set via the membrane keyboard with short-stroke keys on the front face. For communication with a higher-level controller, an optional serial RS232, RS485 interface or a wireless 868 MHz module is available for AZ17E. The serial interface can be connected by an additional RJ45 socket on the rear.

Installation / Mounting:

There are two possibilities for mounting into a panel cutout:

- Fixing the unit from the rear by using a mounting frame (suitable for front panel strengths of 1.0 to 8.0 mm)
- Easy snapping into the cutout by using two mounting clips (suitable for front panel strengths of 1.5 to 3.0 mm)

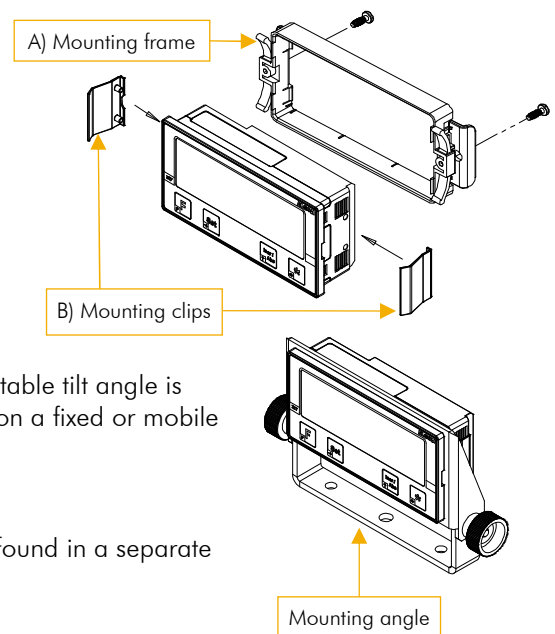
The mounting clips as well as the mounting frames are already included in the delivery.

Mounting on fixed or movable surfaces (e. g. stop system):

For this purpose, a mounting angle (type MW-IZ17E) with a freely adjustable tilt angle is available as a separate accessory. This part allows to fasten the device on a fixed or mobile surface.

Accessories:

Further accessories as well as the respective order designations can be found in a separate table on the last page.



AZ17E - Battery powered Position Indicator with Absolute Encoder

Technical Data:

Mechanical Data	
Housing	norm panel housing
Housing material	ABS-PC plastic, black
Housing dimensions	W x H = 96 x 48 mm
Panel cutout	W x H = 92 x 45 mm
Keyboard	foil with short stroke keys
Installation depth	approx. 60 mm (incl. sensor connector)
Electrical Data	
Display	2-line LCD, digit height 12.6 / 8.5 mm with sign, battery state, measurement units, special characters and symbols
Perspective	12 o'clock
Measurement units	mm / Inch / m / °
Accuracy (indicator)	± 1 digit
Power supply voltage	battery (1.5 V resp. 3 V) integrated or external
Current consumption	< 1 mA at 1.5 V (with sensor)
Battery service life	1 ... 5 years (depending on version and battery type)
Connections	RJ45 socket
Data memory	Flash
External inputs	2 x 5 ... 30 V (on request)
External outputs	2 x 30 V open collector (on request)
Interfaces (optionally)	RS232, RS485, on request RF 868 MHz
Environmental Conditions	
Operating temperature	0 ... +50° C
Storage temperature	-10 ... +60° C
Humidity	non-condensing, max. 80 %
Protection class (front)	IP54 (installed state with seal) IP40 (installed state without seal)
Protection class (rear)	IP40 (standard)
Magnetic Sensors AZS-100 / AZS-50	
Dimensions	AZS-100: 100 x 12 x 25 mm (standard) AZS-50: 50 x 12 x 25 mm (on request)
Required magnetic tape	AB20-40-10-1-R-11
Pole pitch of the tape	4 mm
Distance sensor - tape	max. 1.5 mm
Resolution	0.1 mm
Repeat accuracy	± 2 increments
Interface (absolute)	RS485
Max. measuring length	AZS-100: 8 m / AZS-50: 4 m
Operating speed	max. 2 m/s
Housing material	ABS plastic
Protection class	IP67
Connection type	RJ45 (male) connector
Sensor cable	drag chain suitable, highly flexible, 4-wires, shielded
Sensor cable length	0.1 m ... max. 20 m
Mounting position	arbitrary
Bending radius (cable)	min. 25 mm
Influence of external magnetic fields	External magnetic fields > 1 mT, which directly impinge upon the sensor can affect the system accuracy

Type Designation:

AZ17E - $\bar{A} \bar{A} \bar{A} - \bar{B} - \bar{C} \bar{C} . \bar{C} - \bar{D} - \bar{E}$

A SN Number

- 000 = ELGO Standard
- 100 = with serial RS232 interface (via RJ45 socket)
- 150 = with serial RS485 interface (via RJ45 socket)
- 600* = with integrated RF 868 MHz module
- *) on request

B Power Supply

- 2 = integrated battery case with cover
2 x type AA / LR6 / 1.5 V
- 6 = pluggable screw terminal
2-pin / 1 mm² for 1.5 V or 3 V

C Signal Cable Length in XX.X m

- XX.X = defined by AZ sensor (see below)

D Cable Option

- 1 = sensor pluggable via RJ45 socket

E Options

- L1 = with LCD type 1 (large main segments, but without fraction display possibility)

Order Example:

AZ17E - 0 0 0 - 2 - X X X - 1 - X
A A A - B - C C . C - D - E

ELGO standard AZ17E with integrated battery case incl. cover and female RJ45 connector. Additional options on request available.

Type Designation AZ Sensor: (please order separately)

AZS - $\bar{A} \bar{A} \bar{A} - \bar{B} - \bar{C} \bar{C} . \bar{C} - \bar{D}$

A SN Number

- 000 = ELGO standard
- 001 = first special version

B Sensor Type

- 1 = AZ-100 (L=100 mm, max. 8 m measuring length)
- 2 = AZ-50* (L=50 mm, max. 4 m measuring length)
- *) on request

C Sensor Cable Length in XX.X m

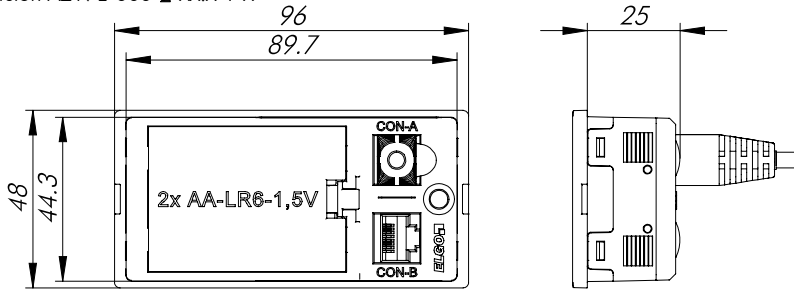
- 02.0 = 2.0 m (example)
- Available standard lengths: 1 / 2 / 3 / 5 m
(further lengths available at extra charge; max. 20 m)

D Cable Option

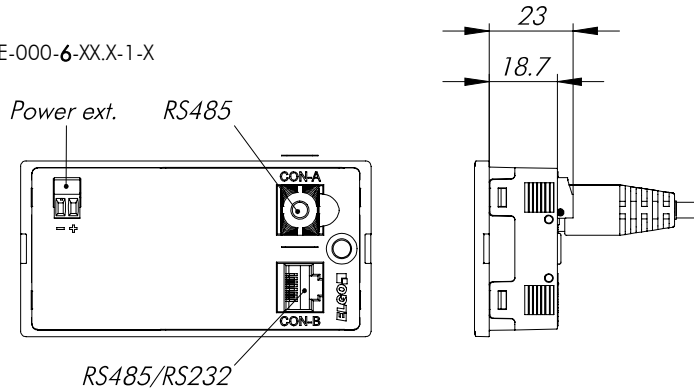
- 1 = Cable outlet with RJ45 connector (standard)

Dimensions of AZ17E:

Version AZ17E-000-2-XX.X-1-X

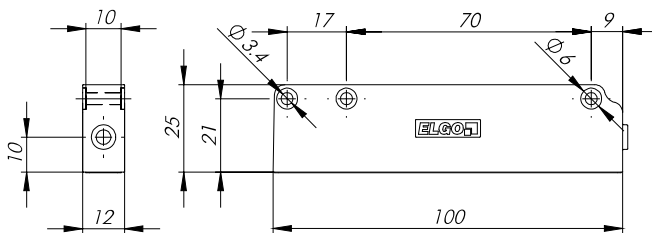


Version AZ17E-000-6-XX.X-1-X

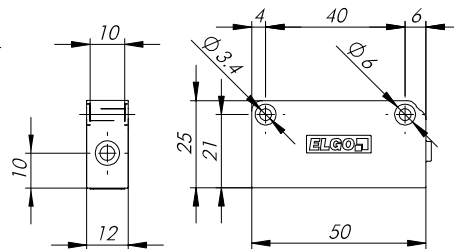


Sensor Dimensions:

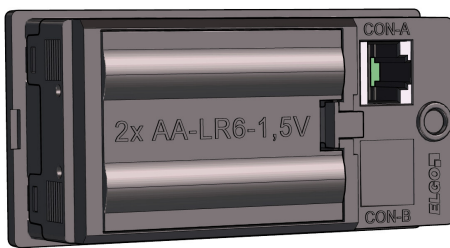
AZS-100 (standard)



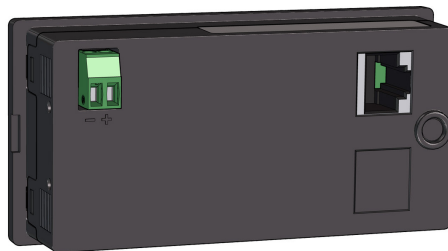
AZS-50 (on request)



Power Supply and Housing Versions:



AZ17E-000-2-XX.X-1-X



AZ17E-000-6-XX.X-1-X

Accessories for AZ17E:

Order Designation	Description
AB20-40-10-1-R-11	AZ17E magnetic tape - please indicate measuring length in X.X m (max. 8.0 m)
End cap set 10 mm	End caps for fixing 10 mm wide magnetic tapes
FS-XXXX	Aluminium profile guide rail for the magnetic tape (XXXX = length in m)
MW-IZ17E	Adjustable mounting angle for AZ17E
Battery holder-set 1 x C assembly	Consisting of battery holder (type C), battery and 2 cable shoes
Battery holder-set 1 x C open	Consisting of battery holder (type C), battery and 2 cable shoes

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Subject to modifications - © 2018

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