



SERIES Z-16E



Instruction Manual

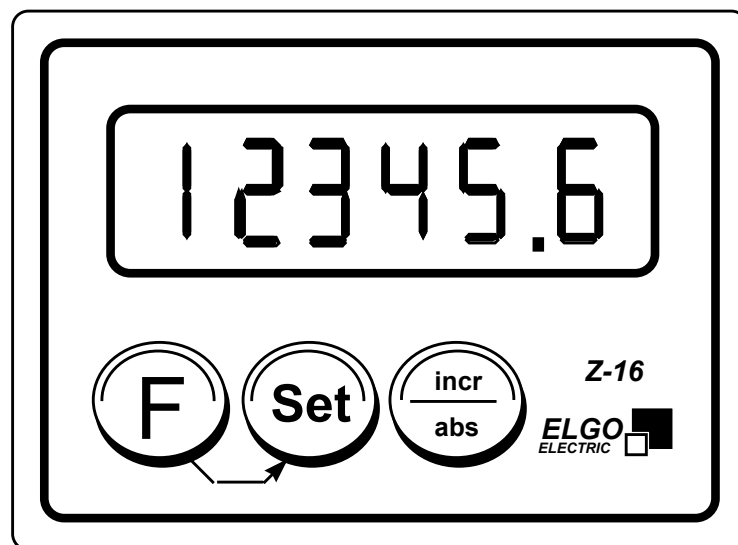
Battery operated Position Readout

- 12 Month Battery Life*)
- Integrated Sensor for Magnetic Linear Measuring System
- LCD Display

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*Depends on producer and
type of battery

1. INTRODUCTION

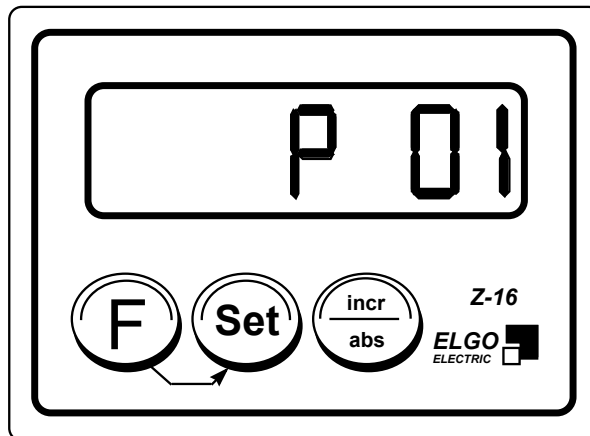


The Z-16 Readout is a highly efficient low power consumption system that allows the Indicator to be mounted on a moving carriage without the need for any cable connection to that carriage. It is thus particularly suited to "Manual" machines and those that involve very long travel.

The Z-16 is a replacement for optically read measuring tapes, and is priced at a level to make it attractive for the simplest of machines. The Z16 provides better accuracy, less errors and allows faster setting of the machine, than when using an optical measuring tape.

The Z-16 Indicator can be applied to many machines in the woodworking, metalworking, plastics and paper industries e.g. crosscut saws, moulders, drills, shears, slitters etc.

The battery, when it is flat, is simply exchanged for a new one. The Datum must then be reset.



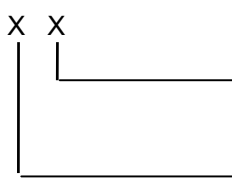
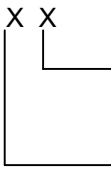
2. FUNCTION OF BUTTONS IN PARAMETER MODE

- F**
1. Selects parameter setting mode
 2. Alternately selects Parameter number and Parameter value
 3. Stores selected Parameter and selects next one
 4. Quits Parameter setting mode
- SET** Selects digit of Parameter to be changed
- Incr/Abs** Increments selected digit of Parameter value by 1 digit on each press
- F + SET** When pressed together, immediately sets the pre-programmed datum position to the display.

3. CHANGING PARAMETERS

1. Press "F" for 3 seconds
The display indicates P01 (for Parameter 01)
2. Press "F"
The display indicates the value of the selected Parameter
3. Select sequentially by button "Set" the decades to be altered and set each one in turn using "Incr/Abs" button to clock up the value
4. Press "F"
The above value is stored in memory
Next parameter number (P05) is displayed
Repeat steps 3.2 to 3.4 for each parameter to be set
5. Press "F" for 3 sec
Then display switches back to operating mode

4. PARAMETER LIST

| | | | Default |
|------|---|--|---------|
| P 01 |  | 0 = Count up in direction +ve 1 = Count up in direction -ve 0 = mm 1 = inch | 01 |
| P 03 | Decimal Point | 1 = 0.1 2 = 0.01 3 = 0.001 | 1 |
| P 05 | Button Function (for operation mode) |  | 00 |
| P 08 | Multiplication Factor | 0.0001 to 9.9999 | 1.0000 |
| P 09 | Datum Value | 0.0 to 99999.9 | 0,0 |
| P 99 | Version | Actual Software No and Version are displayed | |

5. angular measures

Data: Ray, inclusive thickness magnetic tape

1. the circumference is calculated considering 4 figures after the comma (rx2xp)
2. the sector is calculated for degree = circumference /360 = sector
3. the mutual one is calculated that is some sector 1/sector
4. the value of the mutual one, with 4 figures after the comma, it is inserted in the parameter P08 of the display device.

Example:

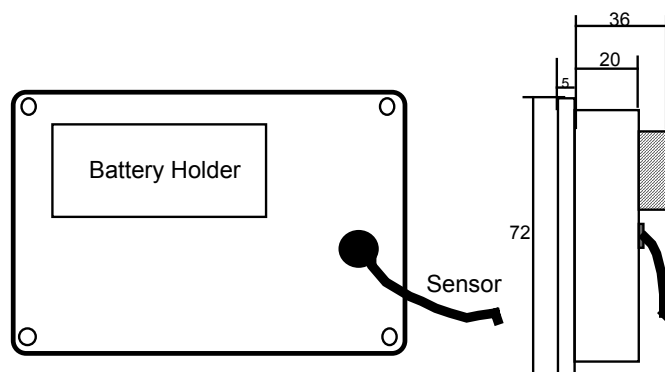
- Ray = 125,0mm
- Circumference = $2 \times 125,0 \times 3,1416 = 785,3982$
- sector = $785,3982 / 360 = 2,1817$
- Mutual = $1 / 2,1817 = 0,4584$
- Mutual = P08 = 0,4584 (value to be inserted in the parameter P08)

6. READOUT IN OPERATION

F + SET Sets display to datum value (i.e. value of P09)
(if P05/2 is set active)

Incr/Abs Alternately selects Absolute or Incremental mode of the Display
(if P05/1 is set active). In Incremental mode "I-" is displayed in the left-hand digit of the display. At all times the internal counter retains the absolute value.

7. BACK PANEL



8. TECHNICAL DATA

| | | |
|-----------------------|---|--|
| LCD display | : | 6 digits plus sign symbol , 13mm high |
| Battery | : | Commonly available "C" size , 1.5V / 7Ah |
| Consumption | : | ca 1mA at 1.5V |
| Operating temperature | : | +5° C to +50° C |
| Operating Speed | : | 2.5m/sec max |
| Resolution | : | 0.1mm |
| Housing | : | Black metal for insertion in panels* |
| Dimensions | : | 96w x 72h x 40d |
| Cut Out | : | 92w x 66h |
| Protection Class | : | IP43 |

* a mounting flange for free standing version is available as an extra

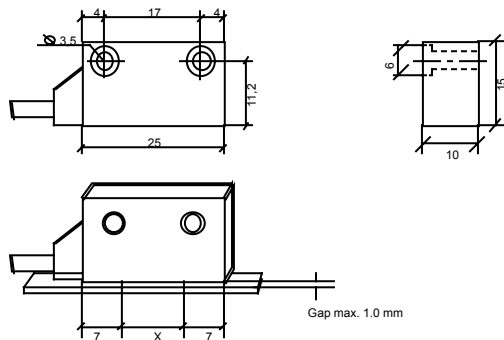
9. INTEGRATED SENSOR TYPE MS20.25

This can be delivered with any length of cable between **0.1 to 1.0 m**. This is directly attached to the indicator housing.

The Sensor Head contains the magnetically sensitive bridge, which provides the signal for translation into counts pulses.

The gap between Sensor Head and Magnetic Tape **must not exceed 1.0mm**.

The cable has 6 cores and is highly flexible. Each pair is twisted and screened.

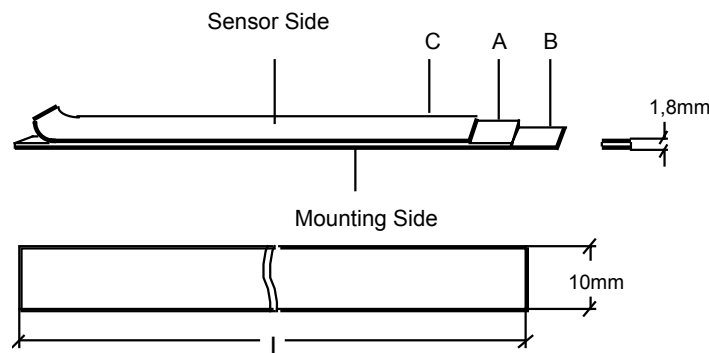


Technical Data:

| | |
|-----------------------|--|
| Cable Length | : 0.1 to 1.0 m (select at order stage) |
| Protection Class | : IP60 in plastic body |
| Operating Temperature | : 0° C to +50° C |
| Orientation | : Any |
| Min Bending Radius | : 60mm |
| Max Gap Band/Sensor | : 1,0mm |

10. MAGNETIC TAPE MB 20.25

The Magnetic Tape comprises 3 components



- A** The magnetised highly flexible tape, whose underside is bonded to B
 - B** A ferrous flexible steel tape. This tape protects the rubber Tape A from mechanical damage and at the same time forms the magnetic path. This provides security against external magnetic influences.
- A and B are supplied factory bonded. This assembly is stuck to machine face by means of double-sided sticky tape.
- C** To enable the tape to be flexible for transport and mounting, the third tape (non-ferrous metal) is supplied separately. This is used to protect the magnetic rubber tape from above. This tape is attached to the bonded A & B by means of double sided sticky tape.