EAE Electronics

Linear Glass Scales

Series LM100, LM200, LM210

High Accuracy Linear Position Feedback Devices
of Incremental Type. For DRO and CNC Applications.

EAE Electronics

APPLICATIONS

- Measurement of linear motions with restricted travel and guided bearings
- Linear displacement and length measurement and control
- Absolute linear position measurement and control with appropriate mechanics
- Thickness measurement and control with appropriate mechanics.

FEATURES

- Calibration-free operation
- High resolution and accuracy
- Robust and stable
- Long Life
- Up to 3200 mm, measurement length
- Easy to mount
- Self aligning reading head (LM200-LM210)
- New offset-coded reference marks (LM200-LM210)

MECHANICAL DATA

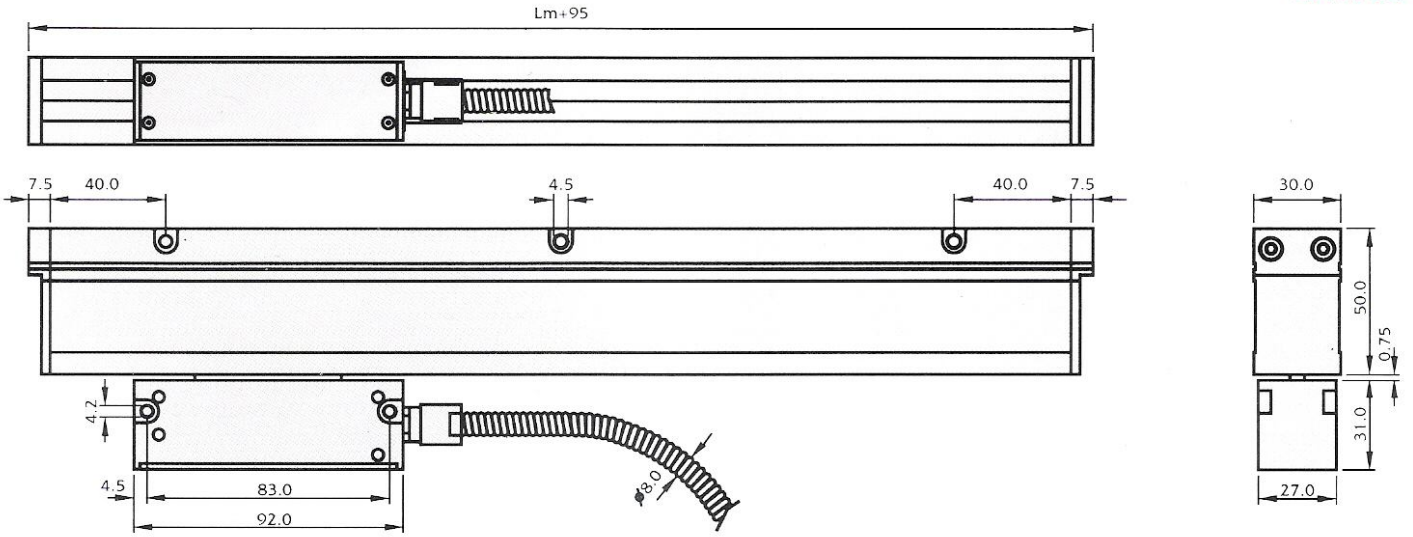
- Cross section	21mm x 53mm (LM200) 23mm x 53mm (LM210) 30mm x 81.75mm (LM100) with reading head and mounting gap
- Measurement Length (mm)	120/170/220/270/320/370/420/ 470/520/570/620/670/720/770/ 820/870/920/970/1020/1140/ 1240/1340/1440/1540/1640/ 1740/1840/1940/2040/2140/ 2240/2340 (LM200-LM210) 2440/2640/2840/3040/3140 (LM100)
- Reference Marks	Standard position are spacings of 40 mm (LM200/LM210) and 50 mm (LM100) along the scale. Other types are optional.

- Accuracy class	±5 µm/m (LM200-210) ±10 µm/m (LM100)
- Resolution	1 µm or 4 µm
- Grating period	10/10 µm(LM200 - 210) 20/20 µm(LM100)
- Maximum speed	1 m/s
- Maximum acceleration	30 m/s^2
- Temperature Operating:	0 to 50 °C Storage : 20 to+70°C
- Relative humidity	Maximum 80%
- Shock resistance	100 m/s^2 (11ms)
- Protection Class	IP53
- Static friction force	<8N (LM200-LM210) <7 kg (LM100)
- Cable protection	With Polyurethane coated steel conduit
- Guiding method	Self guided (LM200-LM210) Using machine guides (LM100))
- Weight	0.8 Kg+0.8 Kg/m (LM200-LM210) 1 Kg+1.9 Kg/m (LM100) inc. cable
- Corrosion resistance	Anodized aluminum and chromium coating

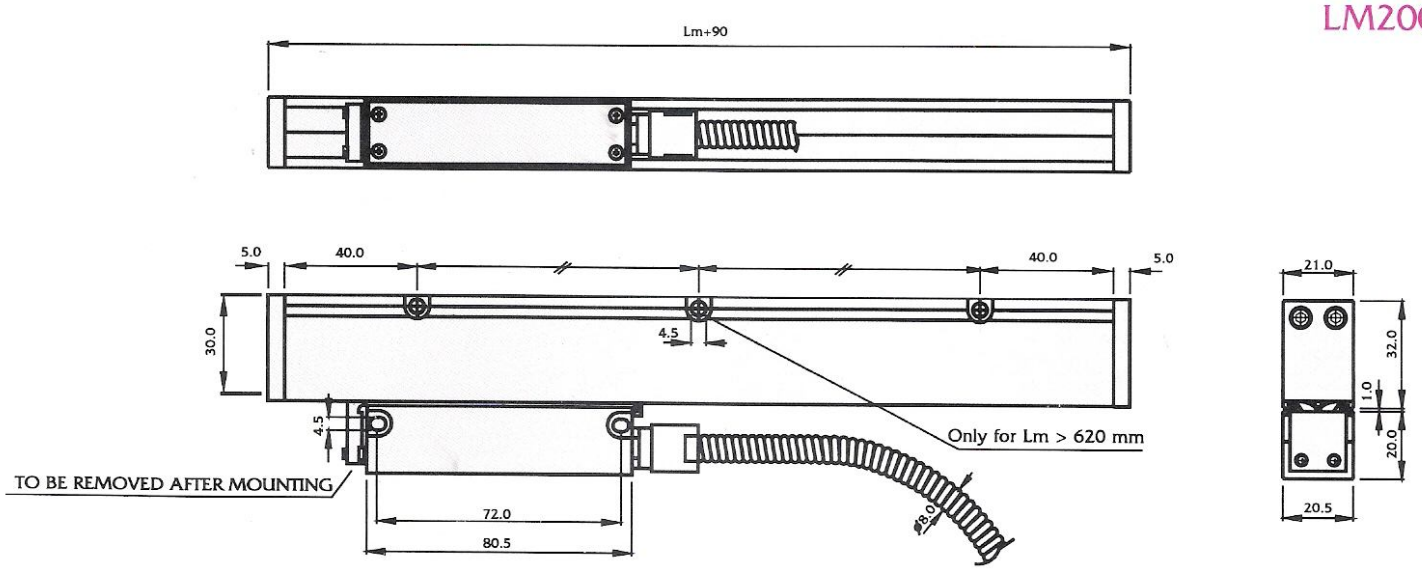
ELECTRICAL DATA

- Outputs	A,B, RI open collector TTL compatible square wave
- Max. output frequency	100 kHz
- Power supply	5V DC, 70 mA
- Cable Length	3 m (up to 50 m on special order)
- Connector	8 pin circular type. Other types on request

LM100



LM200



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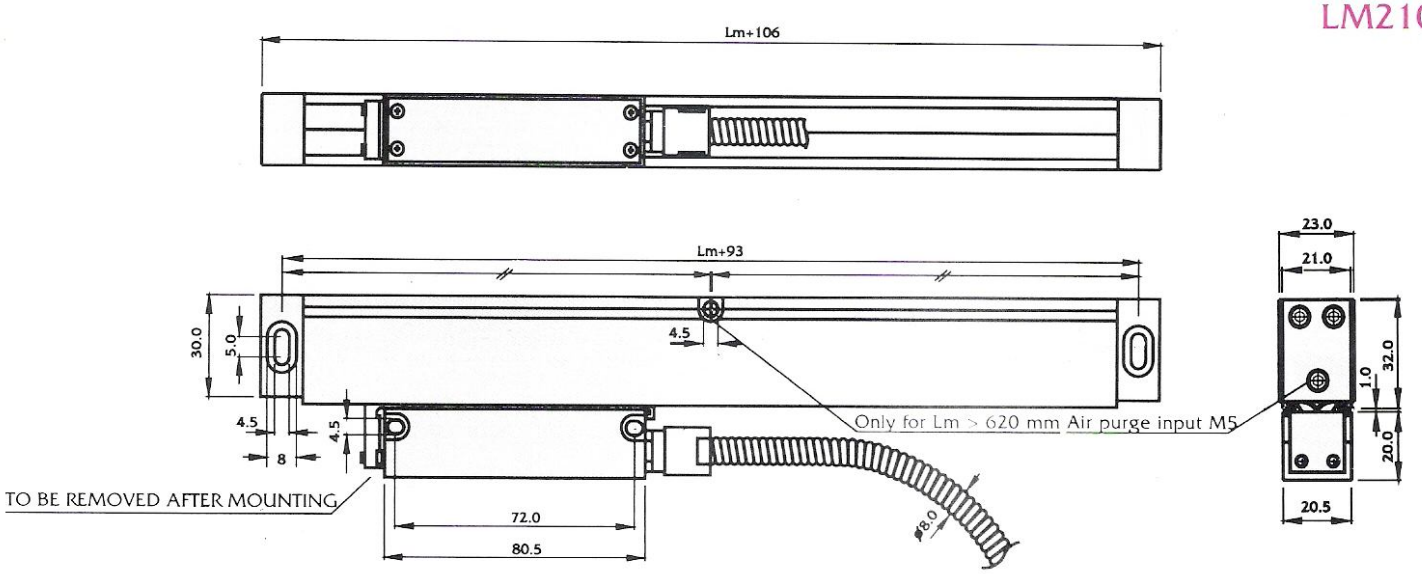


Incremental Linear Encoders

SERIES LM100, LM200, LM210

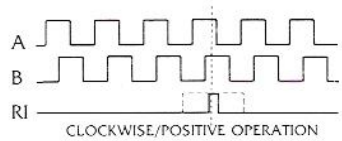
Since 1986, **EAE Elektronik A.Ş.** has been supplying complete solutions for precision angular and linear position, displacement, length, thickness, speed measurement and control needs of industry.

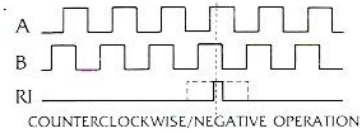
EAE Elektronik A.Ş. is not a component manufacuter; it's sensor manufacturing programme has been limited by necessary and sufficient number of models that will match the main needs of industry and to be compatible with **MİKRONEL, MİKROMAT** and **PROMAT** series read-out and control units of **EAE Elektronik A.Ş.** For instance, only linear and rotary encoders with 5V supply and with open-collector TTL compatible square wave outputs are included in the production programme. Interpolation electronic circuits are placed in the encoders. The type of offset-coded reference marks used in **LM200C** and **LM210C** series linear encoders are designed to operate compatibly with **MİKRONEL** series.

Although rare, needs like linear encoders that are longer than 3140 mm and having higher resolution than 1 micron are not in standard manufacturing programme, however they can be supplied on special request.

All encoders in this programme have the standard quadrature and reference outputs shown. When standard products are supplied with connectors, connections will conform to the following diagram.

1: +5 V DC
2: GND
3: A
4: RI
5: B
6: NC
7: NC
8: NC





INFORMATION FOR ORDERS

LM TTT C - XXXX - Y - S

- Special reference marks and / or cable length and connector type (description requested)
- Resolution (µm) : 1 (only for LM200 and LM210) or 5
- Lm (mm) : 0120 to 2340 for LM200 and LM210, 2440 to 3140 for LM100
- C for offset- coded reference marks (LM200 - 210), blank for standard reference mark
- Type number (100,200 or 210)
- Short for series

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