



MLS310

COMPACT SYSTEM

MAGNETIC LINEAR ENCODERS



- CONTACTLESS AND WEAR-FREE SYSTEM
- HIGH TOLERANCE TO SHOCK AND VIBRATION
- RESISTANT TO DIRT, HUMIDITY AND DUST
- REQUIRES NO CLEANING OR MAINTENANCE
- ROBUST SHIELDED METAL ENCLOSURE
- MEASURING LENGTHS OF UP TO 20 METERS
- PROTECTION CLASS IP67
- COMPACT DESIGN

OPERATIONAL

MANUAL

1. WARNINGS

1. Connections must be completed by only authorized personnel.
2. Consider the warnings when completing the connections and using the scale.
3. Pay attention about the sensors power supply. (For TTL sensor max. 5V, for Push-Pull sensor max. 30V). Don't energize the scale before all connections completed.
4. Distance between sensor and control unit must be short as possible.
5. Be away the sensor cable from high power cables, contactor, engine, or inductive and capacitive noise sources.
6. The screen cable must be connected to the earth line.
7. The magnetic tape must be away from magnetic areas.
8. Don't make any connection when the scale energized.
9. Please call the service for any problem about the scale.



2. GENERAL INFORMATION

The encoder forms a compact unit. The scanning unit is guided within the housing along scale.

Long life linear motion guide system. The scale, scanning unit and guide are protected against contamination by an aluminum extrusion and elastic sealing lips.

The coupling elements between the scanning carriage and transfer web are designed to transfer motion in the measuring direction only.

Pitch or other motion of the connecting web in a direction perpendicular to measurement is compensated without affecting accuracy.

MLS310 Series Linear Encoders Are Mainly Used In:



- Lathes, Milling, Drilling, Grinding Machines
- Sheet Metal Working Machines
- Welding Machines
- Bending Machines
- Robotics/Materials Handling
- Marble Machines
- Wood Cutting Machines
- PVC Profile Cutting Machines
- Glass Working Machinery
- Etc...

PRODUCT CODE

Measuring Stroke

Optional, User Defined
(Several Standard Lengths from 1050 mm to 20.000 mm)

Power Supply and Output

TTL : 5VDC ± %5 Power Supply
5 VDC TTL RS422 Line Driver Output
PP : 24 VDC ± %20 Power Supply
24 VDC Push-Pull Output
HTL : 24 VDC ± %20 Power Supply
5 VDC TTL RS422 Line Driver Output

Cable Length

3M : 3 Meters
5M : 5 Meters
8M : 8 Meters
10M: 10 Meters
* Optional Between 5m to

Magnetic Tape

B5
B2

MLS310 - X X X X - X X - X X X - X - X X - X X

Model

Resolution

01 : 1µm | 05 : 5µm
10 : 10µm | 25 : 25µm
62 : 62,5µm | 80 : 80µm
100: 100µm

Signal Output Type

2 : A, B
3 : A, B, Z
4 : A, /A, B, /B
6 : A, /A, B, /B, Z, /Z

Sensor Type

C : Cable
S : Spiral

3. TECHNICAL SPECIFICATIONS

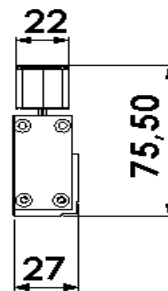
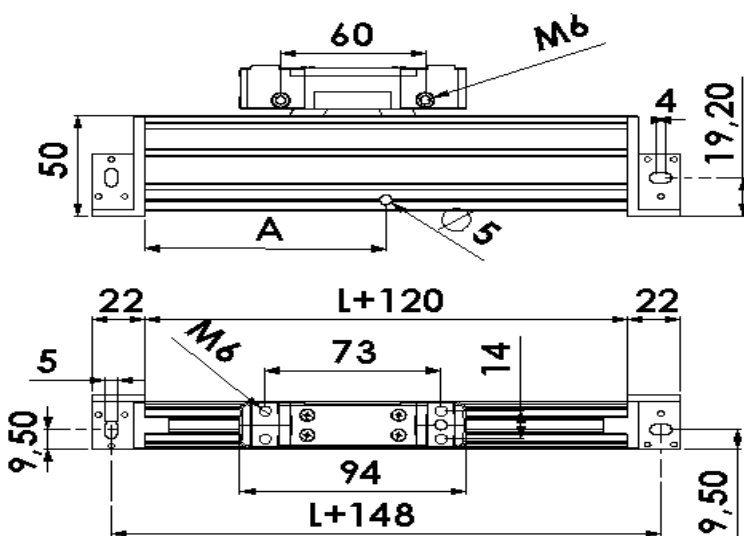
TECHNICAL

Operating Temperature	- 25 to 85 °C
Storage Temperature	- 40 to 100 °C
Protection Class	IP67
Body	Anodized Aluminium
Magnetic Tape	B5 or B2
Tape Reading Distance	1,5 mm
Travel Velocity	3 m/s max.
Connection	D-Sub 9 Pin, 5 or 8 x 0,14 mm ² screen cable
Accuracy	± 50 µm max.
Repeatability	± 1 Increment

ELECTRICAL

Power Supply	5 Vdc, +10 Vdc...+30Vdc
Current	50 mA Nominal
Output	TTL, Push Pull Line Driver
Output Signals	A, /A, B, /B, Z, /Z
Output Current	50 mA max. (Every Channel)

MECHANICAL DIMENSIONS



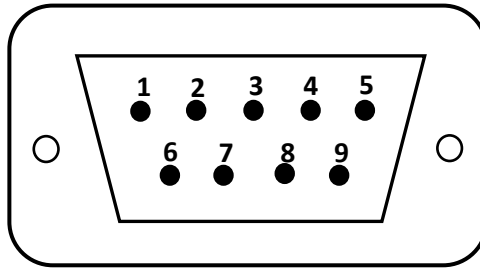
Measurement Strokes

1050	1100	1150	1200
1250	1300	1350	1400
1450	1500	1550	1600
1650	1700	1750	1800
1850	1900	1950	2000
2100	2400	2700	3000
3100	3400	3700	4000

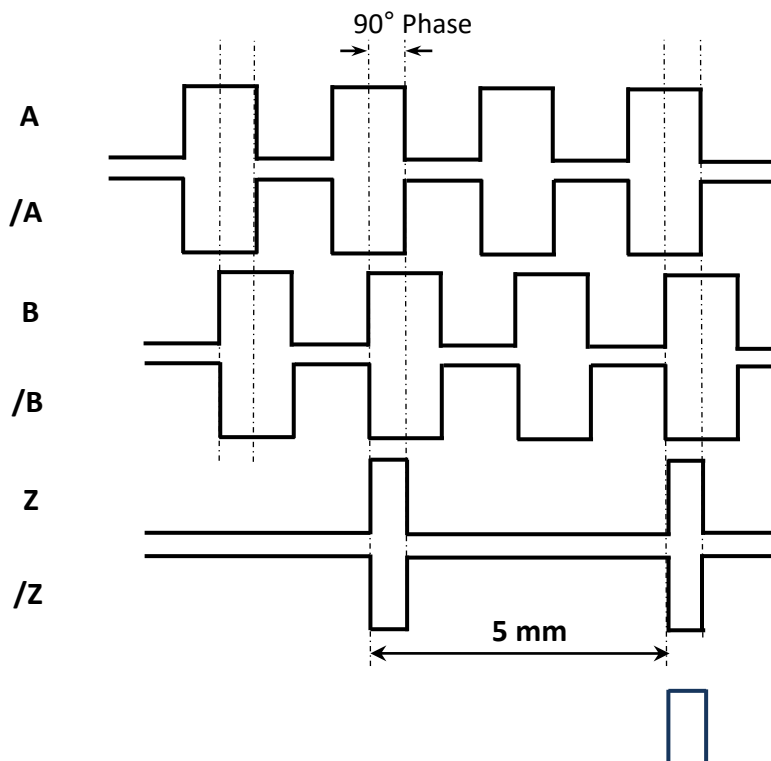
For longer pls. ask

4. CONNECTIONS

4.1. Pin Connections



Pin Number	Standart Signals	Optional Signals
1	Empty	/A
2	0V	0V
3	Empty	/B
4	GND	GND
5	Empty	/Z (R)
6	A	A
7	+5V	+5V
8	B	B
9	Z (R)	Z (R)

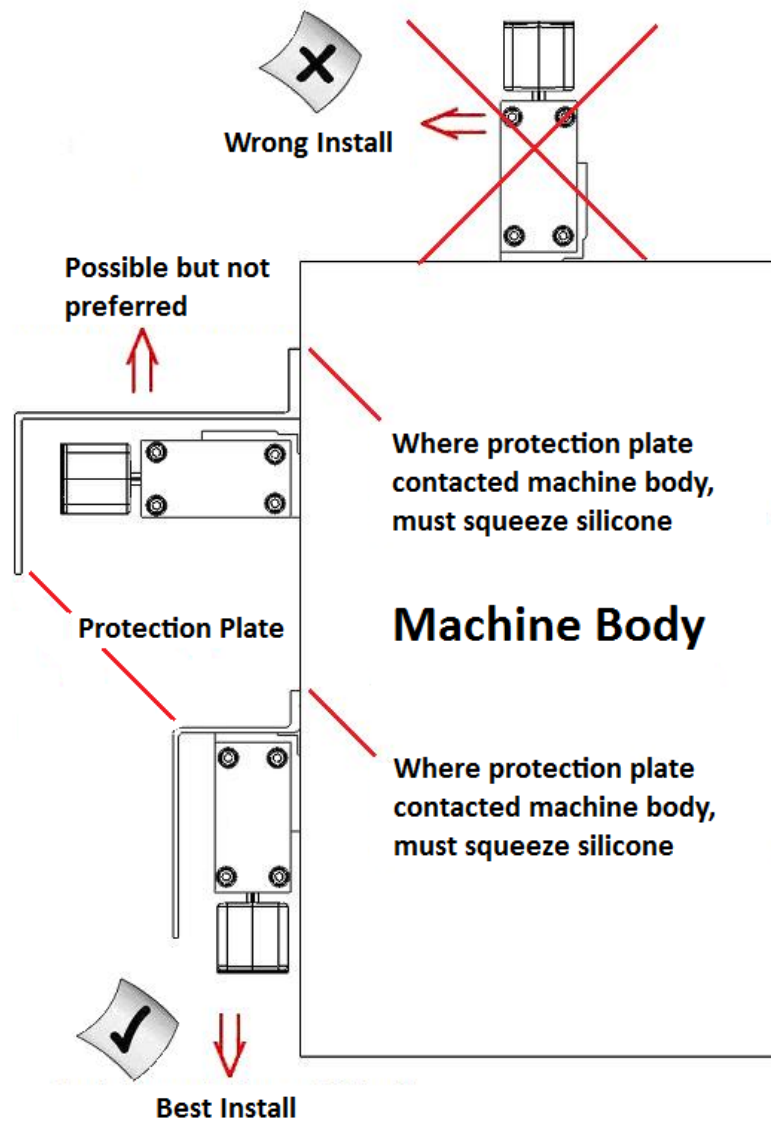


Standard "Z" Signal
Every 5 mm, Z Pulse

Optional "Z" Signal
One "Z" Reference Signal

4.2. Installing

The proper installation of MLS310 is very important issue in terms of the system work properly. The proper installation is shown down. Up surface of the sensor must be down for negative factors. Protection plate must be used. Reader sensor and profile must be parallel for all the stroke. Comparator must be used when installing the scale.



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