MAGNETIC READER SENSORS

MLS 120 / 121

"Soketli veya Kablolu / Küçük Yapı"

LONG SERVICE LIFE | **IP67 PROTECTION** | **INCREMENTAL OUTPUT** | **MAGNETIC MEASUREMENT**
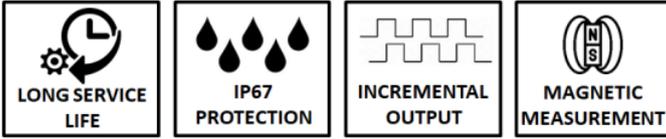
- Model with socket (MLS 120) or cable (MLS 121)
- Model with scraper or without scraper
- Easy mounting
- Resolution from 1 µm to 100 µm
- High accuracy
- Spiral or cable option
- Dust, oil and moisture resistant
- Robust aluminum body
- IP67 protection class

ML 12X series sensor sensors can be used with magnetic stripe tape as well as PS1 profile system and PS2 profile system. Without touching the magnetic tape, it moves position 0,1 - 2 mm and precisely reads the position information and sends it as encoder pulse. Its small structure provides maximum installation convenience to the user. Due to optional integrated scraper on the sensor body, it is extra protected from dust, dirt, sawdust, etc. which may be formed on the magnetic tape or profile that it moves on. Models with socket (MLS 120) and cable (MLS 121) are available. Cable type can be requested as PUR or spiral cable.

Applications:

- Machining Centers
- PVC Cutting Machines
- Wood Cutting Machines
- Lathes, Milling, Drilling, Grinding Machines
- Sheet Metal Working Machines

- Marble Machines
- Welding Machines
- Bending Machines
- Electrical Discharge Machines
- Robotics / Material Handling
- Glass Working Machinery etc…

MLS-120 (Model with socket)

- With PUR Cable -

- With Spiral Cable -

- Without Scraper -

MLS-121 (Model with cable)
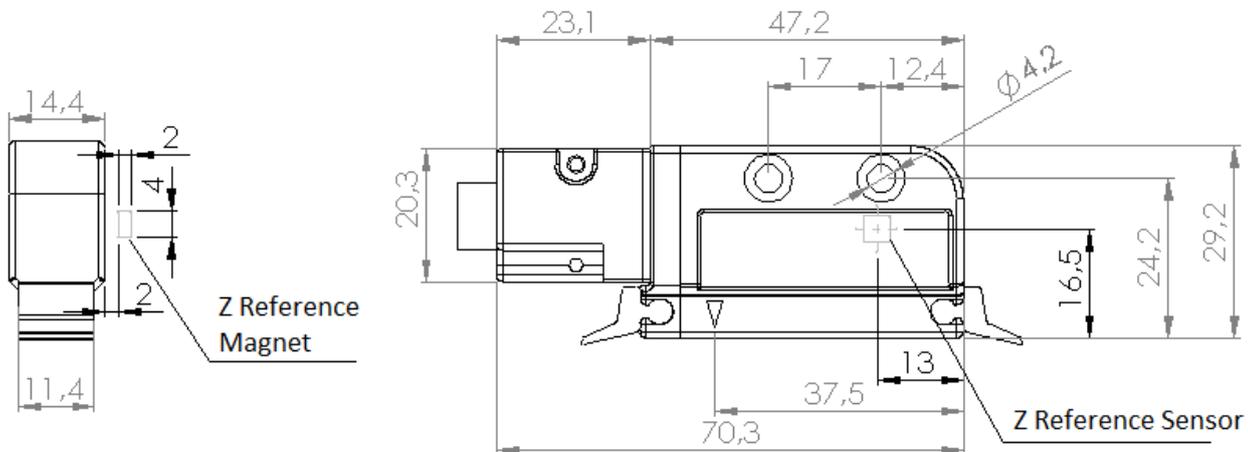
- With PUR Cable -
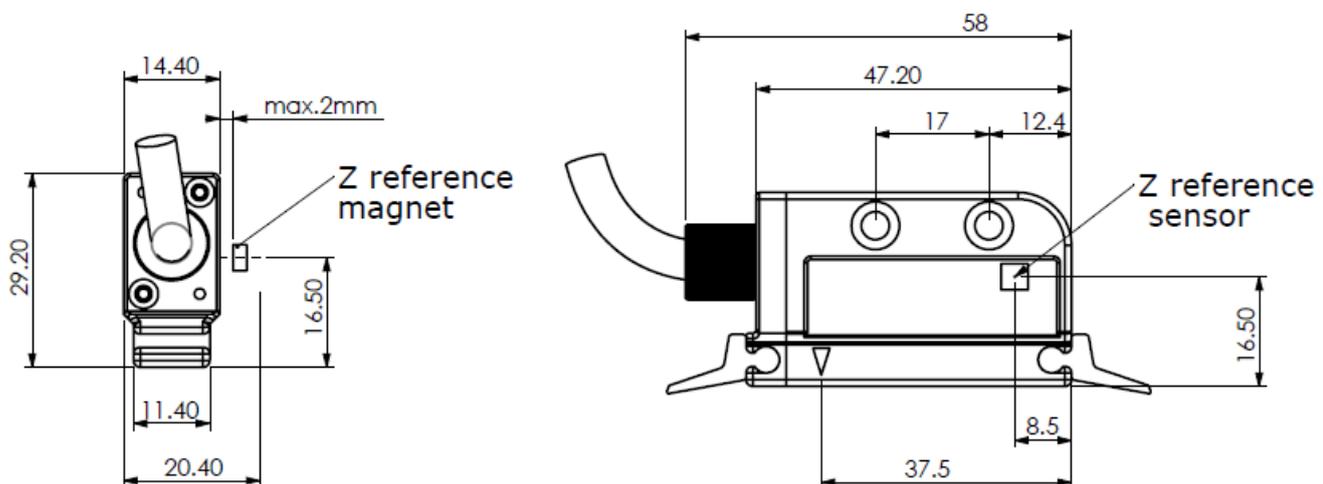

- With Spiral Cable -

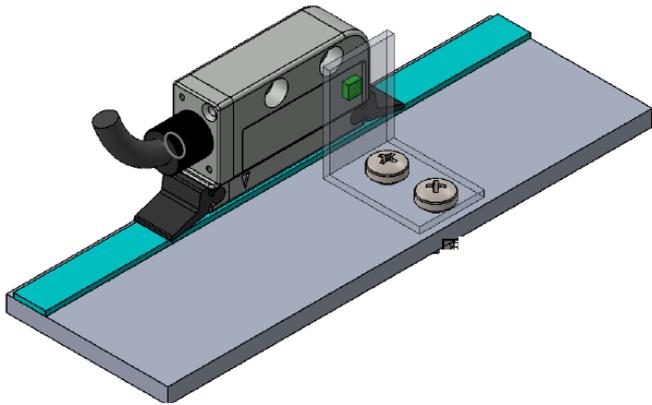**- Without Scraper -**

MECHANICAL DIMENSIONS (mm)
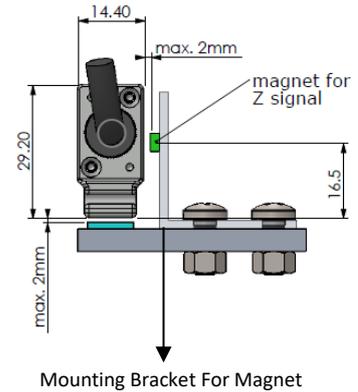
MLS-120 (with socket)

Z Reference Magnet

Z Reference Sensor

MLS-121 (with cable)

Z reference magnet

Z reference sensor

Mounting Bracket For Magnet

The magnet and Z reference sensor must be parallel to each other for the external Z reference signal.

WARNING (!) The sensor and magnetic tape must be away from magnetic areas. The proximity of the band with comparator, magnet or similar instruments having a magnetic effect, disrupts the working structure of the band.

TECHNICAL FEATURES

Measurement Principle	Magnetic, non-contact				
Resolution	1μm, 5μm, 10μm, 25μm, 50μm, 62.5μm, 80μm, 100μm (Optional others)				
		PP	**TTL**	**HTL**	**HPL**
Supply And Output	**Supply**	10...30 VDC	5 VDC	10...30 VDC	5...30 VDC
	Output	10...30 VDC Push-pull	5 VDC TTL RS422 Line Driver	5 VDC TTL RS422 Line Driver	5...30 VDC Push-pull
Output Signals	A, /A, B, /B, Z, /Z				
Current Consumption	40 mA / channel max.				
Repeatabiliy	± 1 Pulse				
Gap between tape and sensor	0,1 mm to 2 mm				
Operating Speed	3 m/s				
Operating Temperature	-25...+85 °C				
Storage Temperature	-40...+100 °C				
Electrical Connection	D-Sub 9 pin connector, 5 or 8 x 0,14 mm² shielded cable				
IP Protection Class	IP67				
Material	Aluminum				

ELECTRICAL CONNECTIONS

SIGNAL	CABLE COLOR	D-SUB 9 PIN / SOCKET PIN NO
A	YELLOW	1
/B	WHITE	2
+V	RED	3
0V	BLACK	4
/A	BLUE	5
B	GREEN	6
/Z	GREY	7
Z	PINK	8
-	SHIELD	9

In the left table the cable colors of sensors output signals are given. If the control circuit is suitable in the Line Driver sensors of the not output signals (/A, /B, /Z) have to be added to the system. If it is not suitable /A, /B, /Z signal cables must be fixed as insulated separately. Don't forget that these edges have electricity too.

- B2 Tape -

- B5 Tape -
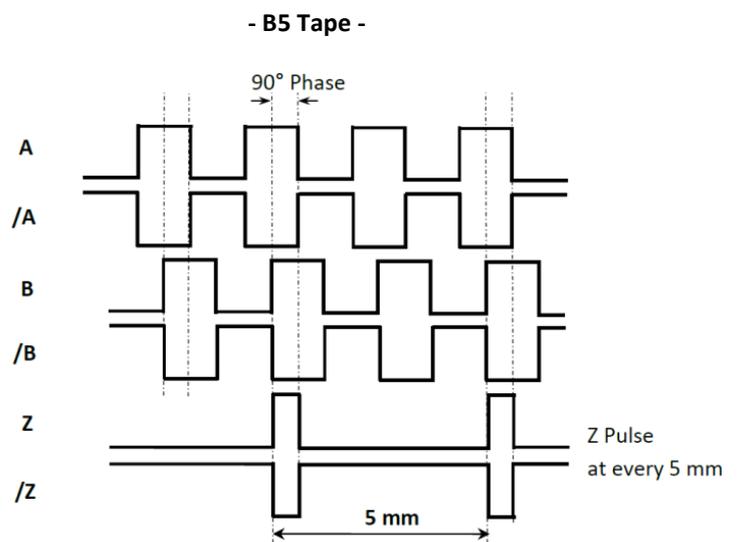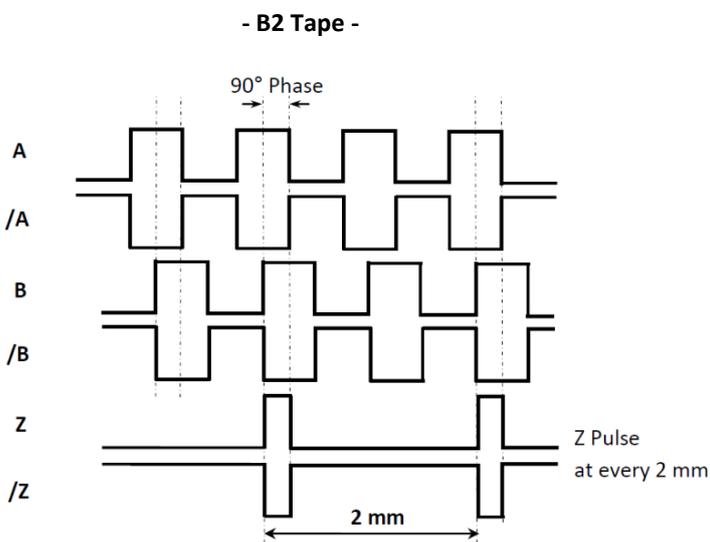
MAGNETIC TAPE AND PROFILE SYSTEMS USED WITH MLS 120 SERIES

- [PS1 Profile System](#)
- [PS2 Profile System](#)
- [B Series Magnetic Tape](#)
- [RB Series Magnetic Ring](#)

Power Supply and Output

TTL : 5VDC Supply Voltage,
5 VDC TTL RS422 Line Driver Signal Output
PP : 10...30 VDC Supply Voltage,
10...30 VDC Push-Pull Signal Output
HTL : 10...30 VDC Supply Voltage,
5 VDC TTL RS422 Line Driver Signal Output
HPL : 5...30 VDC Supply Voltage,
5...30 VDC Push-Pull Signal Output

Cable Length

3M : 3 meters
3.5M : 3,5 meters
4M : 4 meters
5M : 5 meters
6M : 6 meters
7M : 7 meters
8M : 8 meters
9M : 9 meters
10M : 10 meters
15M : 15 meters
* Please ask for other options

Z Signal

No code : Standard*
Z : Single Z signal

Magnetic Tape

B5
B2

MLS12X - XX - XX - XXX - X - XX - X - X

Model

MLS 120 : With socket
MLS 121 : With cable

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

*Standard: Z reference signal at every 5 mm
for B5 Tape or every 2 mm for B2 tape

Sensor / Cable Type

C   : Cable
S   : Shielded Spiral
CSL : Cable and with Scraper
SSL : Spiral and with Scraper