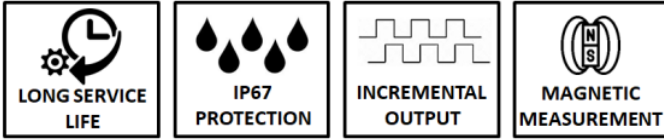


### MLS 120 / 121

“Soketli veya Kablolü / Küçük Yapı”



- Model with socket (MLS 120) or cable (MLS 121)
- Model with scraper or without scraper
- Easy mounting
- Resolution from 1  $\mu\text{m}$  to 100  $\mu\text{m}$
- High accuracy
- Spiral or cable option
- Dust, oil and moisture resistant
- Robust aluminum body
- IP67 protection class

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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)**

**MLS-121 (Model with cable)**

- With PUR Cable -

- With PUR Cable -



- With Spiral Cable -

- Without Scraper -

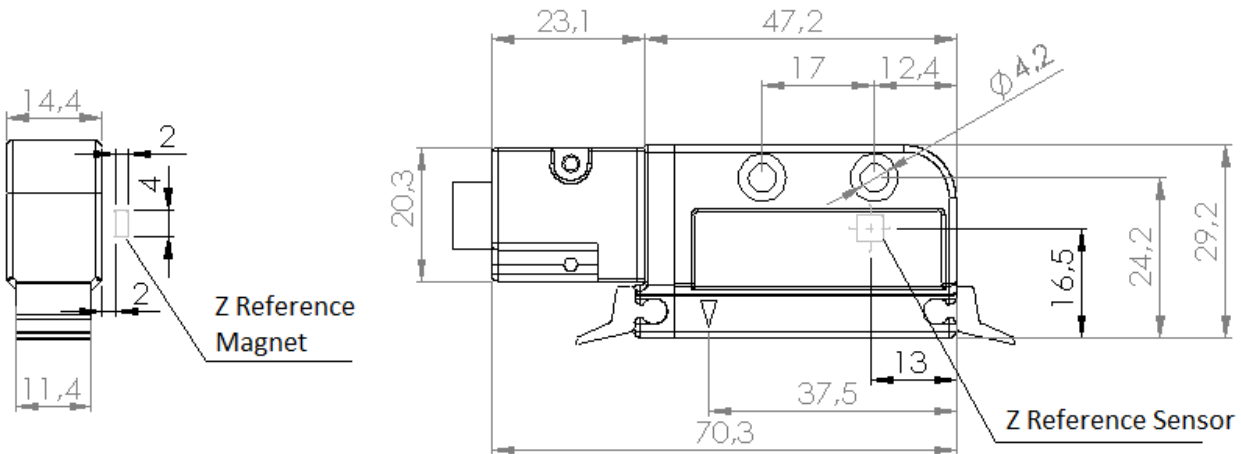
- With Spiral Cable -

- Without Scraper -

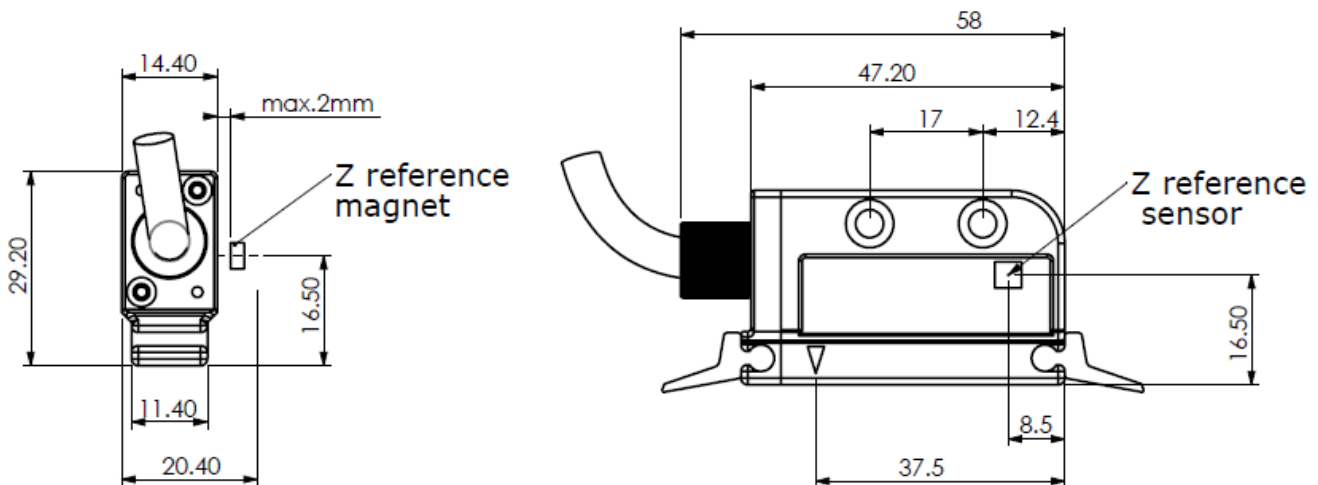


**MECHANICAL DIMENSIONS (mm)**

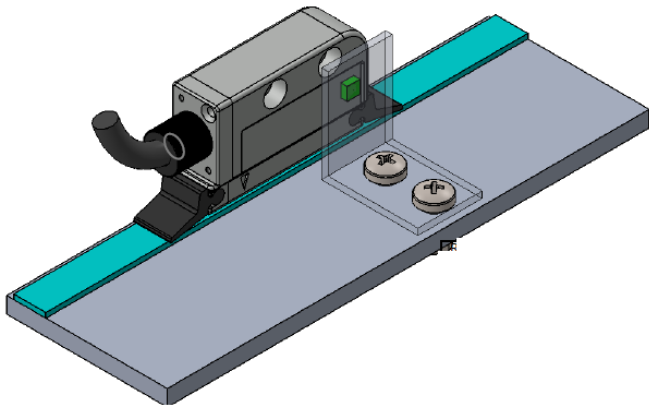
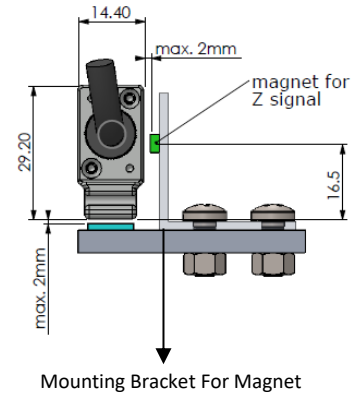
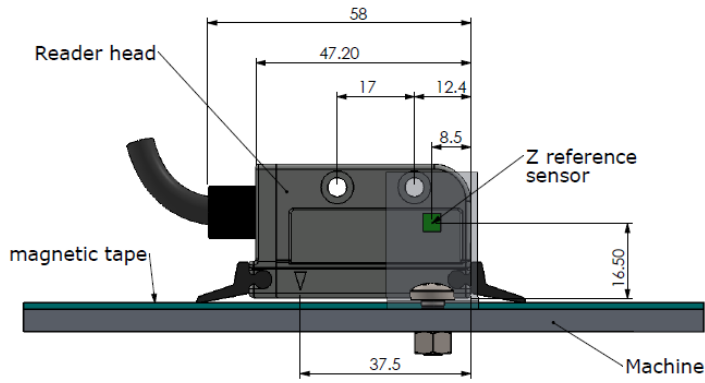
**MLS-120 (with socket)**



**MLS-121 (with cable)**



## EXTERNAL Z REFERENCE SIGNAL



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.

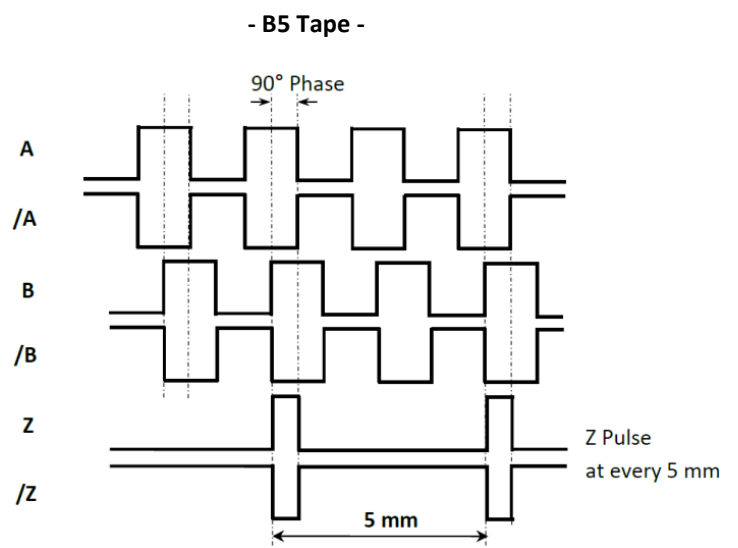
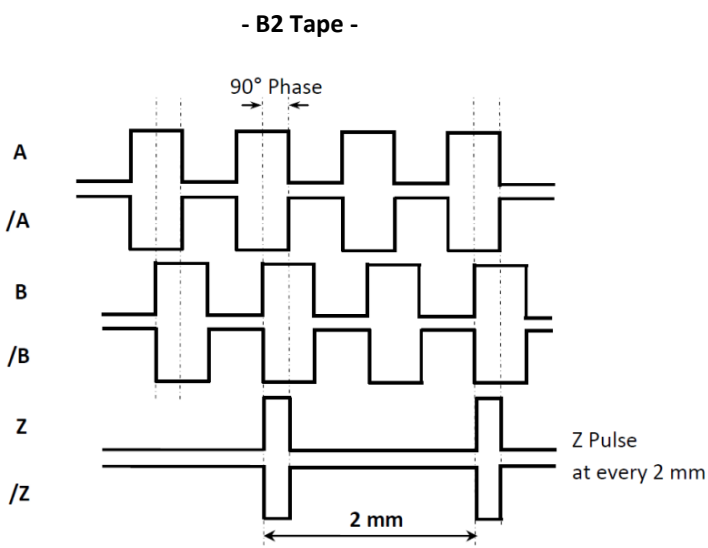
### TECHNICAL FEATURES

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



## MAGNETIC TAPE AND PROFILE SYSTEMS USED WITH MLS 120 SERIES



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

MLS12X	-	XX	-	XX	-	XXX	-	X	-	XX	-	X	-	X
<b>Model</b>		<b>Magnetic Tape</b>				<b>Power Supply and Output</b>			<b>Cable Length</b>			<b>Z Signal</b>		
<b>MLS 120</b> : With socket <b>MLS 121</b> : With cable		B5 B2				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			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			No code : Standard* Z : Single Z signal		
<b>Resolution</b>		<b>Signal Output Type</b>				<b>Sensor / Cable Type</b>								
01 : 1µm   05 : 5µm 10 : 10µm   25 : 25µm 62 : 62,5µm   80 : 80µm 100 : 100µm		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			C : Cable S : Shielded Spiral CSL : Cable and with Scraper SSL : Spiral and with Scraper									

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