



- 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
- Measurement up to 100 meters
- 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.



TECHNICAL SPECIFICATIONS	
Resolution	1 μm , 5 μm , 10 μm , 25 μm , 50 μm , 62.5 μm , 80 μm , 100 μm (or on request)
Output Signal Type	Push-Pull or TTL RS422 Line Driver
Output Signals	A, /A, B, /B, Z, /Z
Current	Maximum 40 mA / Kanal
Supply Voltage	10...30 VDC or 5 VDC
Body Material	Aluminum
Gap Between Tape and Sensor	0,1 mm to 2 mm
Operating Speed	3 m/s
Repeatability	± 1 Pulse
Operating Temperature Range	-25°C ... +85°C
Protection Class	IP67

Applications:

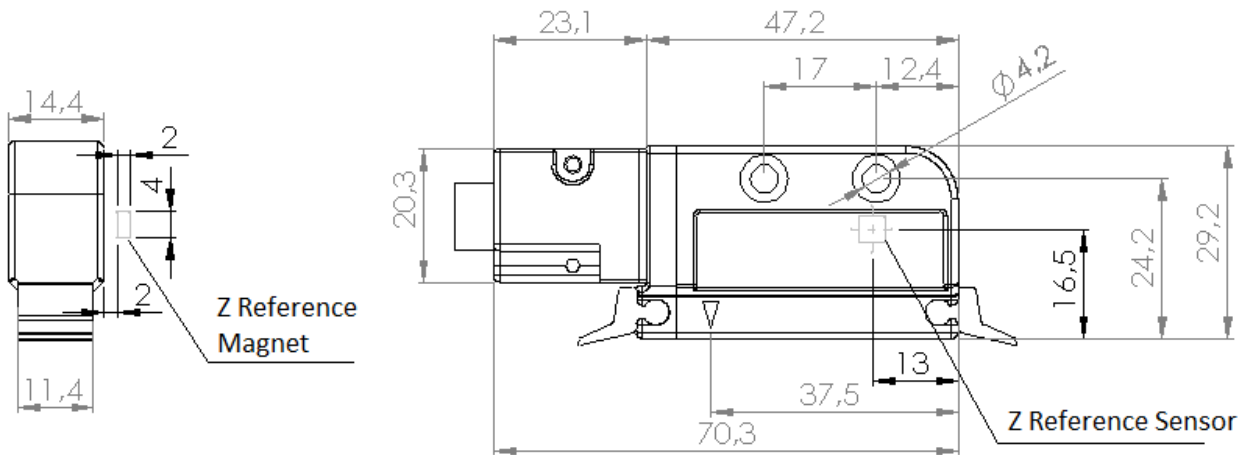
- Machining Centers
- PVC Cutting Machines
- Wood Cutting Machines
- Lathes, Milling, Drilling, Grinding Machines
- Sheet Metal Working Machines
- Marble Machines
- Welding Machines
- Bending Machines
- Electrical Discharge Machines
- Robotics / Material Handling
- Glass Working Machinery etc...

ORDER SPECIFICATIONS

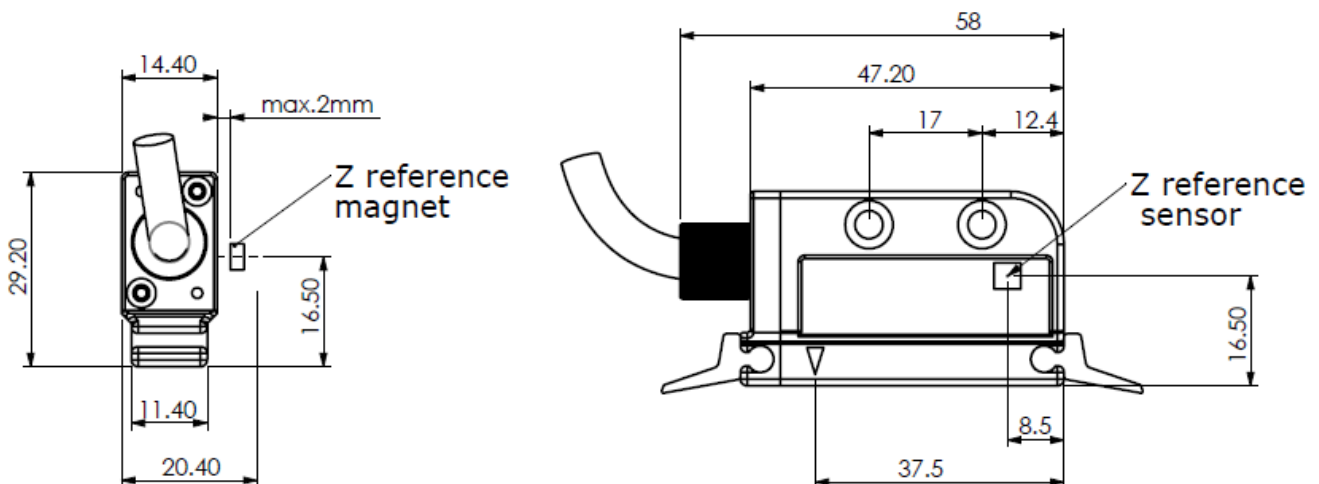
Magnetic Tape										Power Supply and Output										Cable Length										Scraper									
B5 B2										TTL : 5VDC Supply Voltage, 5 VDC TTL RS422 Line Driver Signal Output PP : 10...30 VDC Supply Voltage, 10...30 VDC Push-Pull Signal Output HTL : 10...30 VDC Supply Voltage, 5 VDC TTL RS422 Line 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										SSL : With scraper No code : Without scraper									
MLS12X	-	XX	-	XX	-	XXX	-	X	-	XX	-	X	-	XX	-	X	-	XX																					
Model					Resolution					Signal Output Type					Cable Type																								
MLS 120 : With Socket MLS 121 : With Cable					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 Optional : External Z Reference Signal with magnet					C : PUR Cable S : Shielded Spiral																								

MECHANICAL DIMENSIONS (mm)

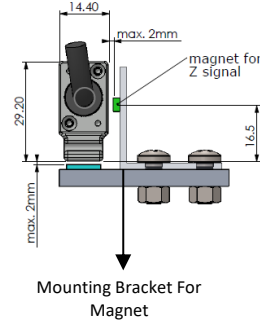
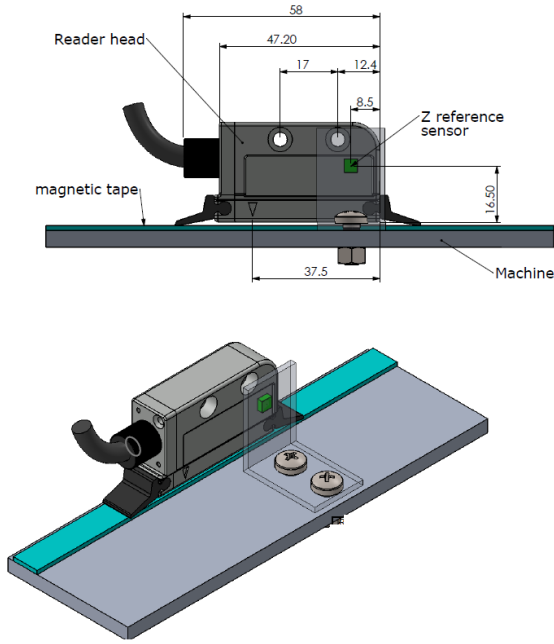
MLS-120 (with socket)



MLS-121 (with cable)



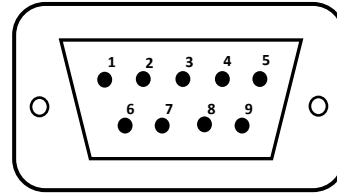
EXTERNAL Z REFERENCE SIGNAL



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

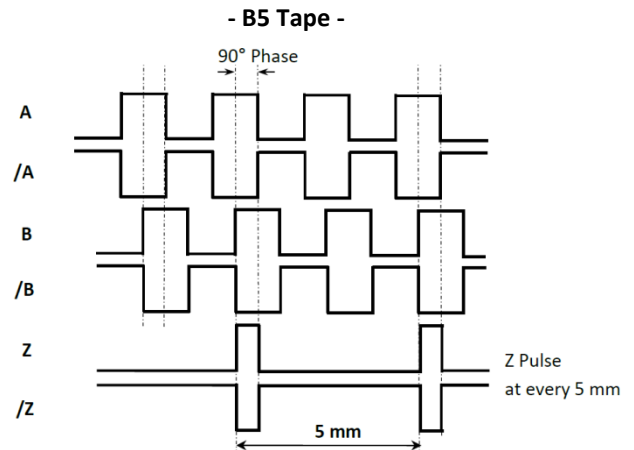
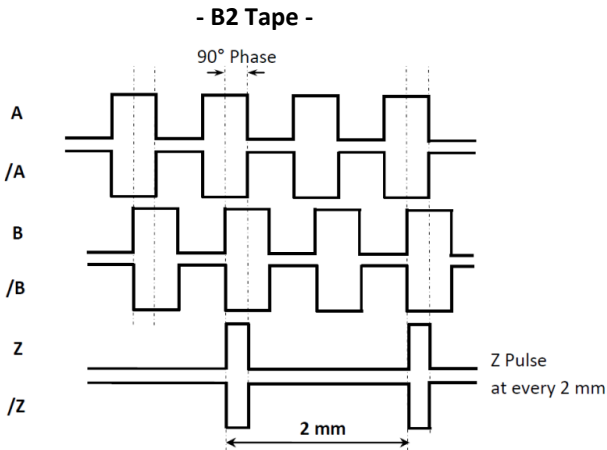
ELECTRICAL CONNECTIONS

D-SUB 9 Pin Socket	Cable Color	Signal
1	Yellow	A
2	White	/B
3	Red	SUPPLY VOLTAGE
4	Black	0 V
5	Blue	/A
6	Green	B
7	Grey	/Z
8	Pink	Z
9	Shield	GROUND



*Diğer soket çeşitleri için bkz.

Yandaki tabloda sensörün çıkış sinyallerinin kablo renkleri verilmiştir. Eğer kontrol devresi uygunsa Line Driver sensörlerde çıkış sinyallerinin değerleri de (/A, /B, /Z) sisteme dahil edilmelidir. Kontrol devresi buna müsait değilse /A, /B, /Z sinyallerinin kabloları ayrı izole edilmiş şekilde sabitlenmelidir. Bu uçlarda da elektrik olduğu unutulmamalıdır.



Magnetic Tape and Profile Systems That Can Be Used With MLS 110 Reader Sensor:

- PS1 Profile System
- PS2 Profile System
- B Series Magnetic Tape



*Other Socket Connections

S41 Socket

Pin Number	Cable Color	Signal
1	RED	POWER SUPPLY
2	BLACK	GROUND
3	YELLOW	A
4	PINK	Z
5	GREEN	B
6	WHITE	/B
7	GREY	/Z
8	BLUE	/A
9	-	-

S87 Socket

Pin Number	Cable Color	Signal
1	-	-
2	RED	POWER SUPPLY
3	BLACK	GROUND
4	BLUE	/A
5	YELLOW	A
6	WHITE	/B
7	GREY	/Z
8	PINK	Z
9	GREEN	B

S86 Socket

Pin Number	Cable Color	Signal
1	PINK	Z
2	GREEN	B
3	YELLOW	A
4	-	-
5	BLACK	GROUND
6	GREY	/Z
7	WHITE	/B
8	BLUE	/A
9	RED	POWER SUPPLY

S71 Socket

Pin Number	Cable Color	Signal
1	BLACK	GROUND
2	BLUE	/A
3	WHITE	/B
4	GREY	/Z
5	RED	POWER SUPPLY
6	YELLOW	A
7	GREEN	B
8	PINK	Z
9	-	-

S50 Socket

Pin Number	Cable Color	Signal
1	PINK	Z
2	GREY	/Z
3	RED	POWER SUPPLY
4	-	-
5	BLACK	GROUND
6	YELLOW	A
7	BLUE	/A
8	WHITE	/B
9	GREEN	B

S42 Socket (SINO Connection)

Pin Number	Cable Color	Signal
1	BLUE	/A
2	BLACK	GROUND
3	WHITE	/B
4	-	-
5	GREY	/Z
6	YELLOW	A
7	RED	POWER SUPPLY
8	GREEN	B
9	PINK	Z

S57 Socket

Pin Number	Cable Color	Signal
1	YELLOW	A
2	BLUE	/A
3	-	-
4	PINK	Z
5	GREY	/Z
6	-	-
7	-	-
8	BLACK	GROUND
9	-	-
10	GREEN	B
11	WHITE	/B
12	-	-
13	-	-
14	-	-
15	RED	POWER SUPPLY

S43 Socket

Pin Number	Cable Color	Signal
1	YELLOW	A
2	BLUE	/A
3	GREEN	B
4	WHITE	/B
5	PINK	Z
6	GREY	/Z
7	-	-
8	-	-
9	RED	POWER SUPPLY
10	-	-
11	BLACK	GROUND
12	-	-
13	-	-
14	-	-
15	SHIELD	GND