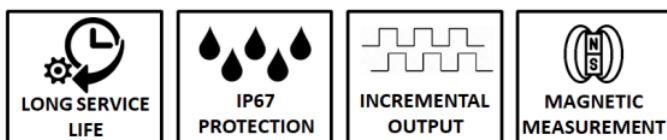


# MAGNETIC READER SENSORS

## MLS 130

"Very Small Size Reader Sensor"



- Small structure
- Easy installation
- Resolution from 1 µm to 100 µm
- High Accuracy and Repeatability
- Dust, oil and nourishment insensitive
- Robust Aluminum Body
- IP67 Protection Class

MLS130 series sensors can be used with magnetic stripe tape as well as PS1 profile system and PS2 profile system. It moves position 0,1 - 2 mm without touching the magnetic band and reads the position information precisely and sends it as encoder pulse. The MLS 130 magnetic reader sensors can be installed in even the smallest areas due to very small dimensions.

### 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...

## Standard Order

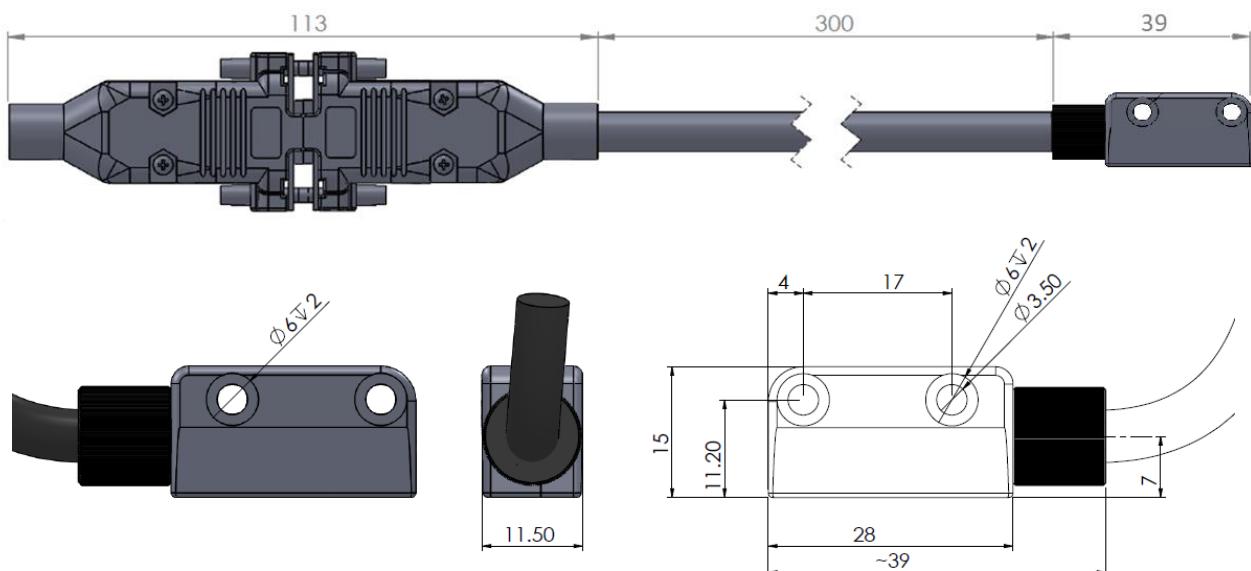


## Optional Order \*



\* The cable is soldered to the female socket. Another socket can be soldered to the end of cable.

## MECHANICAL DIMENSIONS (mm)



**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

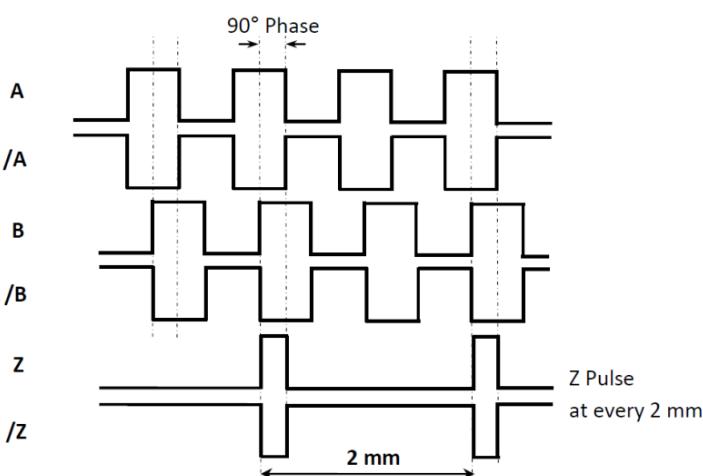
|                                    |  |                       |                             |                             |                      |
|------------------------------------|--|-----------------------|-----------------------------|-----------------------------|----------------------|
| <b>Measurement Principle</b>       | Magnetic, non-contact  |                       |                             |                             |                      |
| <b>Resolution</b>                  | 1µm, 5µm, 10µm, 25µm, 50µm, 62.5µm, 80µm, 100µm<br>(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>Repeatability</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

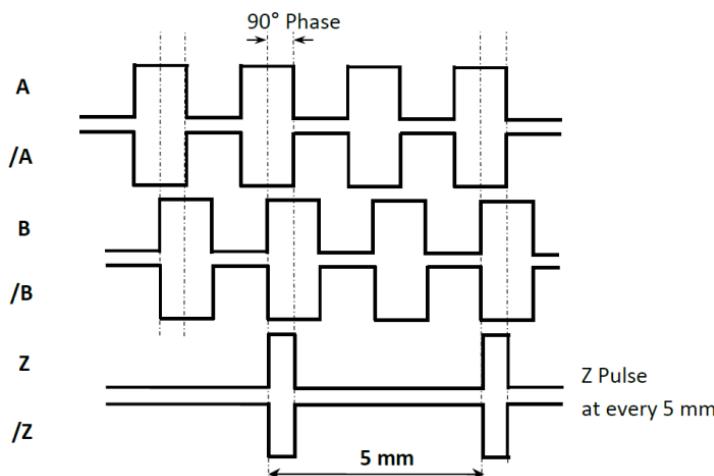
| SIGNAL | CABLE COLOR | D-SUB 9 PIN / SOCKET PIN NO |
|--------|-------------|-----------------------------|
| A      | YELLOW      | 1                           |
| /B     | WHITE       | 2                           |
| +V     | RED         | 3                           |
| OV     | BLACK       | 4                           |
| /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 130

MLS 130 + [B Series Magnetic Tape](#)



MLS 130 + [PS2 Slim Profile](#)



MLS 130 + [RB Magnetic Ring](#)



## ORDER CODE

### 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

### 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

### Magnetic Tape

B5  
B2

MLS130 - XX - XX - XXX - X - XX - X

### Model

### Resolution

For B5:      For B2:

- 05 : 5µm      01 : 1µm
- 10 : 10µm      05 : 5µm
- 25 : 25µm      10 : 10µm
- 50 : 50µm      25 : 25µm
- 62 : 62,5µm      50 : 50µm
- 100: 100µm      80 : 80µm

### 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

### Cable Type

- C : Pure Cable
- S : Shielded Spiral