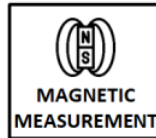
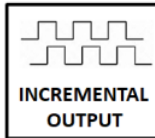


## MLS 210

“Big Size Reader Sensor”



- Resolution from 5  $\mu\text{m}$  to 100  $\mu\text{m}$
- High Accuracy and Repeatability
- Spiral and Wired Options
- Dust, oil and nourishment insensitive
- Robust Aluminum Body
- IP67 Protection Class
- Easy Installation

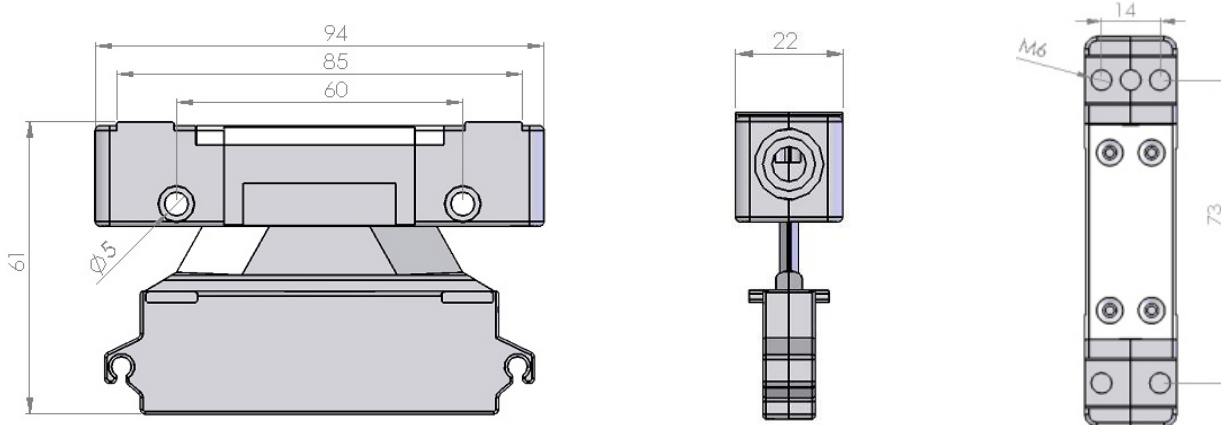
MLS 210 series reader sensors can be used with all magnetic tape and profile systems but we suggest you with PS1 profile system or PS3 profile system for the best harmony. The reader sensor glides contactless over the profile with gap up to 0,1 – 2 mm. MLS 210 reader sensors have models with scraper or without scraper. Also spiral or pure cable models are available.

### Applications:

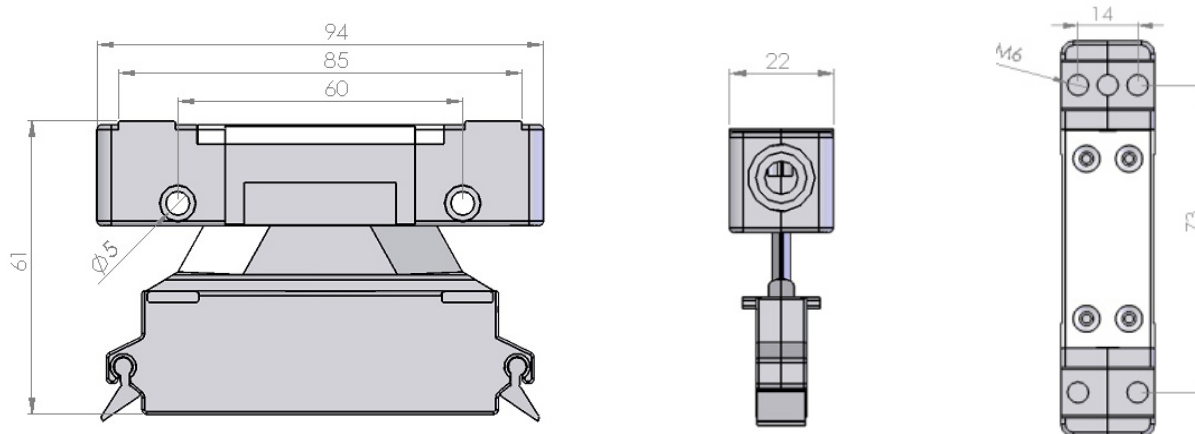
- Machining Centers
- PVC Cutting Machines
- Wood Cutting Machines
- Lathes, Milling, Drilling, Grinding Machines
- Sheet Metal Working Machines
- Marble Machines
- Welding Machines
- Bending Machines
- Electrical Discharge Machines
- Robotics / Material Handling
- Glass Working Machinery
- etc...

## MECHANICAL DIMENSIONS (mm)

### Model with scraper



### Model without scraper



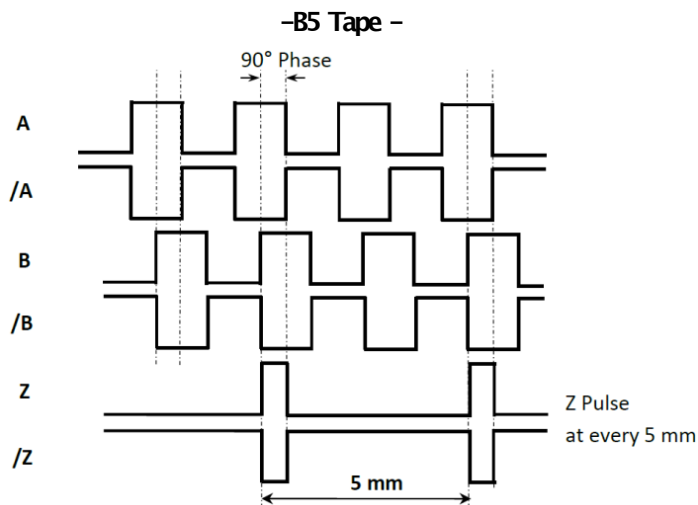
**WARNING (!)** The sensor and magnetic tape must be away from magnetic areas. The proximity of the band with comparator, magnet or similar instruments having a magnetic effect, disrupts the working structure of the band.

## TECHNICAL FEATURES

|                                    |  |                      |                                |                                |                     |
|------------------------------------|--|----------------------|--------------------------------|--------------------------------|---------------------|
| <b>Measurement Principle</b>       | Magnetic, non-contact  |                      |                                |                                |                     |
| <b>Resolution</b>                  | 5µm, 10µm, 25µm, 62.5µm, 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...30VDC           | 5 VDC                          | 10...30VDC                     | 5...30VDC           |
|                                    | <b>Output</b>  | 10...30VDC Push-pull | 5 VDC TTL RS422<br>Line Driver | 5 VDC TTL RS422<br>Line Driver | 5...30VDC 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-Sub9 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 above 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.

## PROFILE SYSTEMS USED WITH MLS 210SERIES



- [PS1 Profile System \(With scraper\)](#)
- [PS3 Profile System \(Without scraper\)](#)

## ORDER CODE

| Magnetic Tape |  |    |   | Power Supply and Output   |  |     |   | Cable Length   |  |    |   | Z Signal                                    |   |   |
|---------------|--|----|---|---|--|-----|---|--|--|----|---|---|---|---|
| B5            |  |    |   | TTL : 5VDC Supply Voltage,<br>5 VDC TTLRS422 Line Driver Signal Output<br>PP : 10...30VDC Supply Voltage,<br>10...30VDC Push-Pull Signal Output<br>HTL : 10...30VDC Supply Voltage,<br>5 VDC TTLRS422 Line Driver Signal Output<br>HPL : 5...30VDC Supply Voltage,<br>5...30VDC Push-Pull Signal Output |  |     |   | 3M : 3 meters<br>3.5M : 3,5 meters<br>4M : 4 meters<br>5M : 5 meters<br>6M : 6 meters<br>7M : 7 meters<br>8M : 8 meters<br>9M : 9 meters<br>10M : 10 meters<br>15M : 15 meters<br>* Please ask for other options |  |    |   | No code* : Standard*<br>Z : Single Z signal |   |   |
| MLS210        | -  | XX | - | XX  | -  | XXX | - | X  | -  | XX | - | XXX   | - | X |
| Model         | Resolution   |    |   |   | Signal Output Type   |     |   |  | Sensor/Cable Type  |    |   |   |   |   |
|               | 05 : 5µm<br>10 : 10µm<br>25 : 25µm<br>62 : 62,5µm<br>100 : 100µm |    |   |   | 2 : A, B   3 : A, B, Z<br>4 : A, /A, B, /B   6 : A, /A, B, /B, Z, /Z<br><br>*Standard: Z reference signal at every 5 mm<br>Optional, single Z reference signal |     |   |  | C : Pure Cable<br>S : Shielded Spiral<br>CSL : Cable and with Scraper<br>SSL : Spiral and with Scraper |    |   |   |   |   |