



## MRA-F130-110D2

Wire draw mechanism for wire draw encoders

**WIRE DRAW MECHANISM**

**SICK**  
Sensor Intelligence.



### Ordering information

| Type           | part no. |
|----------------|----------|
| MRA-F130-110D2 | 6028627  |

Other models and accessories → [www.sick.com/Wire\\_draw\\_mechanism\\_for\\_wire\\_draw\\_encoders](http://www.sick.com/Wire_draw_mechanism_for_wire_draw_encoders)

### Detailed technical data

#### Features

|                                                 |                                                                                                                                                                                          |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>                              | HighLine wire draw mechanism for servo flange with 6 mm shaft, measuring range 0 m ... 10 m                                                                                              |
| <b>Items supplied</b>                           | Without encoder                                                                                                                                                                          |
| <b>Measurement range</b>                        | 0 m 10 m                                                                                                                                                                                 |
| <b>Reproducibility</b>                          | ≤ 1.5 mm                                                                                                                                                                                 |
| <b>Linearity</b>                                | ≤ ± 2 mm                                                                                                                                                                                 |
| <b>Hysteresis</b>                               | ≤ 3 mm                                                                                                                                                                                   |
| <b>Weight</b>                                   | 3.5 kg Wire draw mechanism                                                                                                                                                               |
| <b>Weight (measuring wire)</b>                  | 7.1 g/m                                                                                                                                                                                  |
| <b>Measuring wire material</b>                  | Highly flexible stranded steel 1,4401 stainless steel V4A                                                                                                                                |
| <b>Material, spring housing</b>                 | Plastic                                                                                                                                                                                  |
| <b>Housing material, wire draw mechanism</b>    | Aluminum (anodised), plastic                                                                                                                                                             |
| <b>Length of wire pulled out per revolution</b> | 332.4 mm                                                                                                                                                                                 |
| <b>Actual wire draw length</b>                  | 10.2 m                                                                                                                                                                                   |
| <b>Spring return force</b>                      | 10 N 20 N <sup>1)</sup>                                                                                                                                                                  |
| <b>Measuring wire diameter</b>                  | 1.35 mm                                                                                                                                                                                  |
| <b>Wire acceleration</b>                        | 40 m/s <sup>2</sup>                                                                                                                                                                      |
| <b>Operating speed</b>                          | 8 m/s                                                                                                                                                                                    |
| <b>Resolution</b>                               | To calculate the resolution of the system please use following formula: length of wire draw per revolution / steps per revolution = resolution of the combination of wire draw + encoder |
| <b>Ambient operating temperature</b>            | -30 °C +70 °C                                                                                                                                                                            |
| <b>Enclosure rating mechanic</b>                | IP64                                                                                                                                                                                     |
| <b>Life of wire draw mechanism</b>              | Typ. 1,000,000 cycles <sup>2) 3)</sup>                                                                                                                                                   |

<sup>1)</sup> These values were measured at an ambient temperature of 25 °C. There may be variations at other temperatures.

<sup>2)</sup> Average values, which depend on the application.

<sup>3)</sup> The service life depends on the type of load. This is influenced by environmental conditions, the installation location, the measuring range in use, the traversing speed, and acceleration.

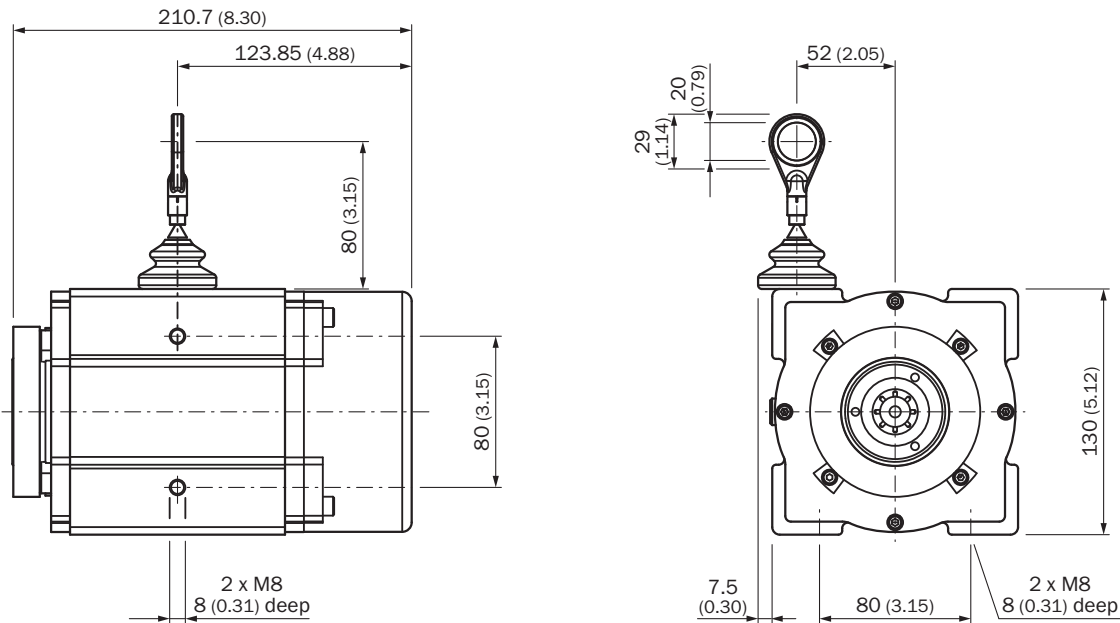
Certificates

|            |   |
|------------|---|
| China RoHS | ✓ |
|------------|---|

Classifications

|                |          |
|----------------|----------|
| ECLASS 5.0     | 27270591 |
| ECLASS 5.1.4   | 27270591 |
| ECLASS 6.0     | 27279103 |
| ECLASS 6.2     | 27279103 |
| ECLASS 7.0     | 27279103 |
| ECLASS 8.0     | 27279103 |
| ECLASS 8.1     | 27279103 |
| ECLASS 9.0     | 27270591 |
| ECLASS 10.0    | 27270591 |
| ECLASS 11.0    | 27270591 |
| ECLASS 12.0    | 27270591 |
| ETIM 5.0       | EC002026 |
| ETIM 6.0       | EC002026 |
| ETIM 7.0       | EC002026 |
| ETIM 8.0       | EC002026 |
| UNSPSC 16.0901 | 39122221 |

Dimensional drawing



Dimensions in mm (inch)

Recommended accessories

Other models and accessories → [www.sick.com/Wire\\_draw\\_mechanism\\_for\\_wire\\_draw\\_encoders](http://www.sick.com/Wire_draw_mechanism_for_wire_draw_encoders)

|                                                                                   | Brief description                                                                                                                                                                  | Type       | part no. |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|
| Mounting systems                                                                  |                                                                                                                                                                                    |            |          |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Additional brush attachment for wire draw mechanism MRA-F130 (5 m, 10 m, 20 m and 30 m from HighLine series)</li></ul> | MRA-F130-B | 6038562  |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Wire draw deflection pulley for wire draw mechanism MRA-F130 (5m, 10m, 20m and 30m from HighLine series)</li></ul>     | MRA-F130-R | 6028631  |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Compressed air attachment for MRA-F080... and MRA-F130... HighLine wire draw mechanism</li></ul>                       | MRA-F-P    | 6073769  |
|  | <ul style="list-style-type: none"><li>• <b>Description:</b> Spare mounting set for HighLine wire draw mechanisms for fitting encoders with servo flange</li></ul>                  | MRA-F-K    | 6028633  |

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)