# Cutting application

**Industries:** Metal industry
**Application type:** Dimension measurement

## Description

Length division devices are a common and widespread tool in the metal processing industry. There are various standard solutions of such devices available on the market. However, standard solutions are not always suitable for every metal processing plant. Some require a solution designed for their particular operation or for a specific product. Dimetix Laser Distance Sensors can help keep the cost of a special model as low as possible as well as keeping the construction simple. The example (figures 1 and 2) shows a very simple and economical solution for a length splitting device tailored to the needs of the company. Thanks to the free Dimetix software, the customer only needs the sensor and a digital display. A PC is only requirement for the configuration of the device.

*Fig 1: Order of the Dimetix Laser Sensors*

## Customer advantage

- Easy installation thanks to visible laser beam
- Easy configuration thanks to the free software
- Operating in the largest temperature range (-40..+ 60°C) possible
- Measuring ranges up to 500 m on reflective foil
- Measuring ranges up to 100 m on natural surfaces
- Accuracy ± 1 mm
- Repeatability ± 0.3 mm
- Maintenance-free operation

*Fig 2: Measurement of the rear setting*

## Dimetix Sensors – the solution for applications with high precision requirements

Thanks to the clearly arranged product portfolio the evaluation of a suitable Dimetix distance laser sensor is simple and uncomplicated.

Dimetix sensors offer numerous features, which are integrated in each and every device as standard, including, among others, various interfaces like SSI, RS-422/485, RS-232 and 2 digital outputs.
Optionally, the Industrial Ethernet interfaces PROFINET, EtherNET/IP and EtherCAT are also available. Furthermore, all devices are IP65-protected and impress with a weight of less than 500 grams!

Particularly noteworthy, however, is the accurate measurement of 1 millimeter over distances of up to 500 meters, even under the most extreme conditions. This is possible with the sensors of the types DPE, DEN and DEH.

No less interesting are sensors of types DAE, DAN and DBN. Preferably, they can be used for projects which do not require a range over 500 meters or are cost-sensitive.

| | **DPE-10-500** | **DPE-30-500** | **DEN-10-500** | **DEH-30-500** |
|---|---|---|---|---|
| **PARTNUMBER** | 500630 | 500636 | 500637 | 500638 |
| **SPECIFICATION** | | | | |
| Typical accuracy ≅ ± 2σ | ± 1 mm | ± 3 mm | ± 1 mm | ± 3 mm |
| Mensurierung range on natural surfaces | 0.05…~100 m | 0.05…~100 m | 0.05…~100 m | 0.05…~100 m |
| Measuring range on reflective foil | ~0.5…500 m | ~0.5…500 m | ~0.5…500 m | ~0.5…500 m |
| Max. measuring rate | 250 Hz | 250 Hz | 100 Hz | 100 Hz |
| Operating temperature | -40…+60°C | -40…+60°C | -10…+50°C | -10… +60°C |

| | **DAE-10-050** | **DAN-10-150** | **DAN-30-150** | **DBN-50-050** |
|---|---|---|---|---|
| **PARTNUMBER** | 500633 | 500632 | 500634 | 500635 |
| **SPECIFICATION** | | | | |
| Typical accuracy ≅ ± 2σ | ± 1 mm | ± 1 mm | ± 3 mm | ± 5 mm |
| Mensurierung range on natural surfaces | 0.05…~50 m | 0.05…~100 m | 0.05…~100 m | 0.05…~50m |
| Measuring range on reflective foil | ~40…50 m | ~40…150 m | ~40…150 m | |
| Max. measuring rate | 100 Hz | 100 Hz | 100 Hz | 10 Hz |
| Operating temperature | -40…+60°C | -10…+50°C | -10…+50°C | -10…+50°C |