



# HEIDENHAIN



## POSITIP 8000

Operating Instructions  
Milling

Digital Readout

# 19

## Specifications

## 19.1 Overview

This chapter contains an overview of the product data and drawings with the product dimensions and mating dimensions.

## 19.2 Product data

### Device

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Housing                               | Aluminum milled housing            |
| Housing dimensions                    | 314 mm x 265 mm x 36 mm            |
| Fastener system,<br>mating dimensions | VESA MIS-D, 100<br>100 mm x 100 mm |

### Display

|                     |  |
|---------------------|--|
| Visual display unit | <ul style="list-style-type: none"> <li>■ LCD widescreen (16:10)<br/>color screen 30.7 cm (12.1")</li> <li>■ 1280 x 800 pixels</li> </ul> |
| Display step        | Selectable, min. 0.00001 mm  |
| User interface      | User interface (GUI) with touchscreen  |

### Electrical data

|                                    |  |
|------------------------------------|--|
| Supply voltage                     | <ul style="list-style-type: none"> <li>■ AC 100 V ... 240 V (<math>\pm 10\%</math>)</li> <li>■ 50 Hz ... 60 Hz (<math>\pm 5\%</math>)</li> <li>■ For devices with ID 1089176-xx: max. input power 38 W</li> <li>■ For devices with ID 1089177-xx: max. input power 79 W</li> </ul> |
| Buffer battery                     | Lithium battery type CR2032; 3.0 V   |
| Oversupply category                | II   |
| Number of encoder inputs           | Milling application mode: 4 (2 additional inputs can be enabled via software option)<br>Turning application mode: 4  |
| Encoder interfaces                 | <ul style="list-style-type: none"> <li>■ 1 V<sub>PP</sub>: max. current 300 mA;<br/>max. input frequency 400 kHz</li> <li>■ 11 µA<sub>PP</sub>: Maximum current 300 mA;<br/>maximum input frequency: 150 kHz</li> <li>■ EnDat 2.2: max. current 300 mA</li> </ul>                  |
| Interpolation at 1 V <sub>PP</sub> | 4096-fold  |
| Touch probe connection             | <ul style="list-style-type: none"> <li>■ Voltage supply DC 5 V or DC 12 V</li> <li>■ 5 V or floating switching output</li> <li>■ Max. cable length with HEIDENHAIN cable 30 m</li> </ul>   |

**Electrical data**

|                     |  |
|---------------------|--|
| Digital inputs      | TTL DC 0 V ... +5 V  |
|                     | Level      Voltage range      Current range  |
|                     | High      DC 11 V ... 30 V      2.1 mA ... 6.0 mA  |
|                     | Low      DC 3 V ... 2.2 V      0.43 mA   |
| Digital outputs     | TTL DC 0 V ... +5 V<br>Maximum load 1 kΩ<br>Voltage range DC 24 V (20.4 V ... 28.8 V)<br>Output current max. 150 mA per channel  |
| Relay outputs       | For devices with ID 1089177-xx:<br><ul style="list-style-type: none"> <li>■ Max. switching voltage AC 30 V / DC 30 V</li> <li>■ Max. switching current 0.5 A</li> <li>■ Max. switching capacity 15 W</li> <li>■ Max. continuous current 0.5 A</li> </ul> |
| Analog inputs       | For devices with ID 1089177-xx:<br>Voltage range DC 0 V ... +5 V<br>Resistance $100 \Omega \leq R \leq 50 \text{ k}\Omega$   |
| Analog outputs      | For devices with ID 1089177-xx:<br>Voltage range DC -10 V ... +10 V<br>Maximum load 1 kΩ   |
| 5 V voltage outputs | Voltage tolerance $\pm 5\%$ , maximum current 100 mA   |
| Data interface      | <ul style="list-style-type: none"> <li>■ 4 USB 2.0 Hi-Speed (Type A), maximum current 500 mA per USB connection</li> <li>■ 1 Ethernet 10/100 Mbit/1 Gbit (RJ45)</li> </ul>   |

**Environment**

|                       |                                  |
|-----------------------|----------------------------------|
| Operating temperature | 0 °C ... +45 °C                  |
| Storage temperature   | -20 °C ... +70 °C                |
| Relative air humidity | 10 % ... 80 % RH, non-condensing |
| Altitude              | $\leq 2000 \text{ m}$            |

**General information**

|                     |  |
|---------------------|--|
| Directives          | <ul style="list-style-type: none"> <li>■ EMC Directive 2014/30/EU</li> <li>■ Low Voltage Directive 2014/35/EU</li> <li>■ RoHS Directive 2011/65/EU</li> </ul>  |
| Pollution degree    | 2  |
| Protection EN 60529 | <ul style="list-style-type: none"> <li>■ Front panel and side panels: IP 65</li> <li>■ Rear panel: IP 40</li> </ul>  |
| Mass                | <ul style="list-style-type: none"> <li>■ 3.5 kg</li> <li>■ With Single-PoS stand: 3.6 kg</li> <li>■ With Duo-PoS stand: 3.8 kg</li> <li>■ With Multi-PoS stand: 4.5 kg</li> <li>■ With Multi-PoS holder: 4.1 kg</li> </ul> |

### 19.3 Product dimensions and mating dimensions

All dimensions in the drawings are in millimeters.

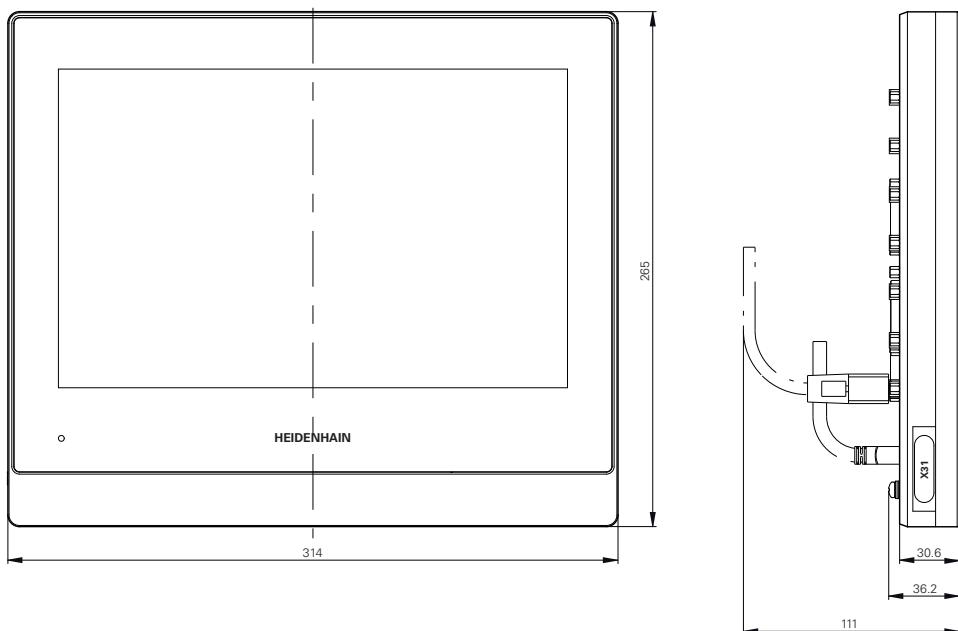


Figure 63: Dimensions of housing

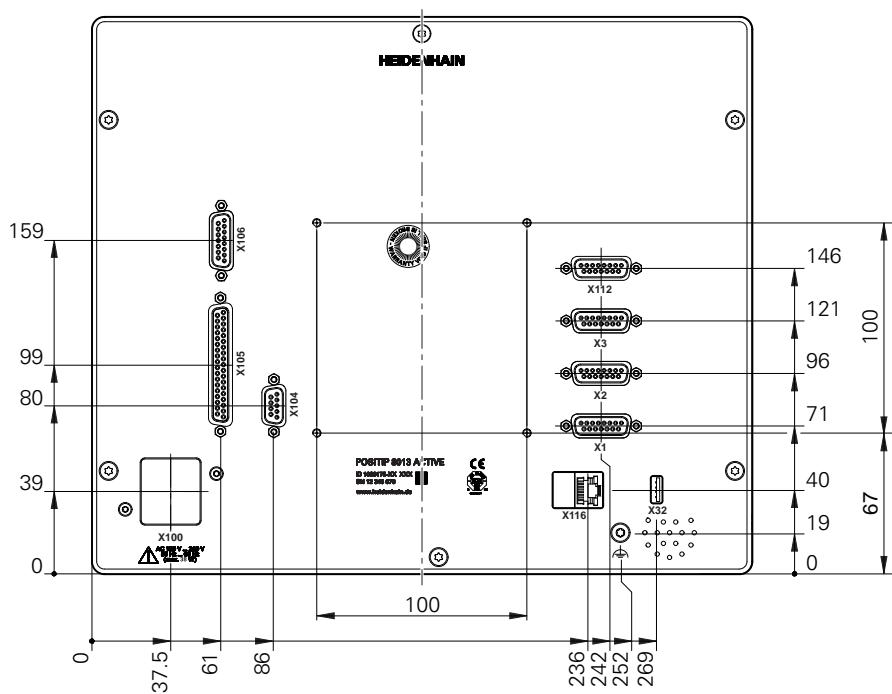


Figure 64: Dimensions of rear panel of the product

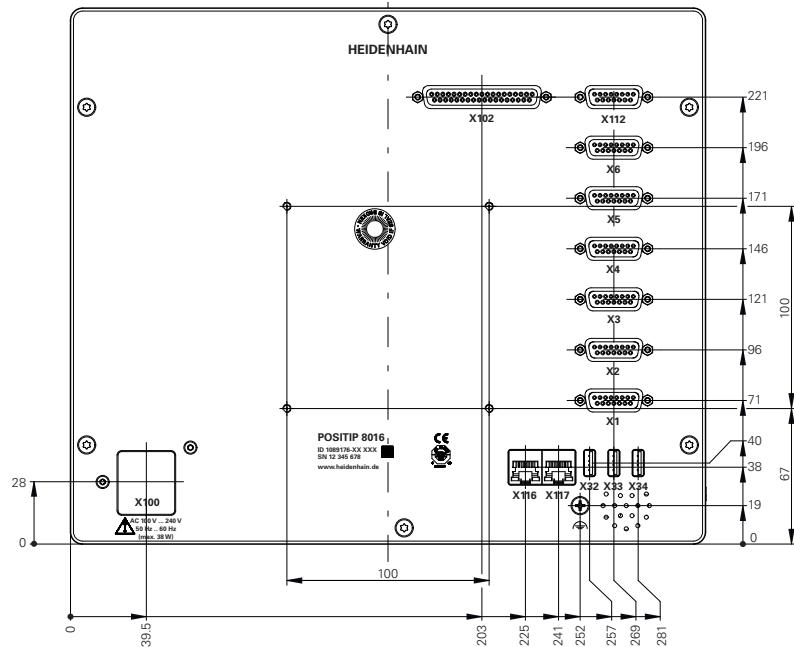


Figure 65: Dimensions of the rear panel for devices with ID 1089176-xx

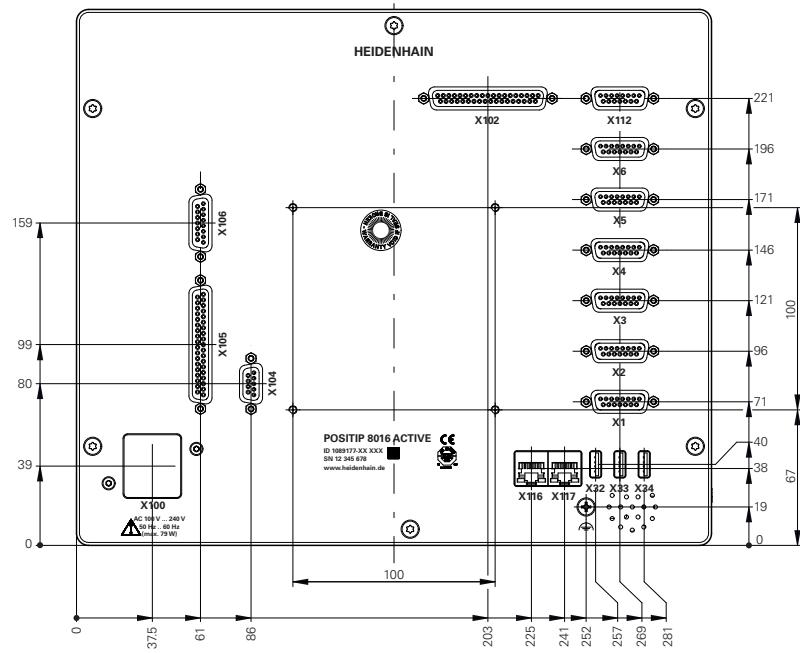


Figure 66: Dimensions of the rear panel for devices with ID 1089177-xx