



## ND 7000

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 cast housing
Housing dimensions	200 mm x 169 mm x 41 mm For devices with ID 1089179-xx: 200 mm x 169 mm x 47 mm
Fastener system, mating dimensions	Mounting hole pattern 50 mm x 50 mm

### Display

Visual display unit	<ul style="list-style-type: none"> <li>■ LCD Widescreen (15:9) color screen 17.8 cm (7")</li> <li>■ 800 x 480 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>■ max. input power 38 W</li> </ul>
Buffer battery	Lithium battery type CR2032; 3.0 V
Overvoltage category	II
Number of encoder inputs	3
Encoder interfaces	<ul style="list-style-type: none"> <li>■ 1 V<sub>PP</sub>: max. current 300 mA; max. input frequency 400 kHz</li> <li>■ 11 <math>\mu</math>A<sub>PP</sub>: Maximum current 300 mA; 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>■ Four digital inputs: TTL DC 0 V ... +5 V</li> <li>■ One digital output TTL DC 0 V ... +5 V Maximum load 1 k <math>\Omega</math></li> <li>■ Max. cable length with HEIDENHAIN cable 30 m</li> </ul>

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**Electrical data**


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Digital inputs	For devices with ID 1089179-xx:  <table border="1"> <thead> <tr> <th>Level</th> <th>Voltage range</th> <th>Current range</th> </tr> </thead> <tbody> <tr> <td>High</td> <td>DC 11 V ... 30 V</td> <td>2.1 mA ... 6.0 mA</td> </tr> <tr> <td>Low</td> <td>DC 3 V ... 2.2 V</td> <td>0.43 mA</td> </tr> </tbody> </table>	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
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	For devices with ID 1089179-xx: Voltage range DC 24 V (20.4 V ... 28.8 V) Output current max. 150 mA per channel									
Relay outputs	For devices with ID 1089179-xx: <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 1089179-xx: Voltage range DC 0 V ... +5 V Resistance $100 \Omega \leq R \leq 50 \text{ k}\Omega$									
Analog outputs	For devices with ID 1089179-xx: Voltage range DC -10 V ... +10 V Maximum load 1 k $\Omega$									
5 V voltage outputs	For devices with ID 1089179-xx: Voltage tolerance $\pm 5 \%$ , maximum current 100 mA									
Data interface	<ul style="list-style-type: none"> <li>■ 1 USB 2.0 Hi-Speed (Type A), maximum current 500 mA</li> <li>■ 1 Ethernet 10/100 Mbit/1 Gbit (RJ45)</li> </ul>									

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**Environment**


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

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**General information**


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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>

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### General information

- Mass
- 1.3 kg
  - With Single-Pos stand: 1.35 kg
  - With Duo-Pos stand 1.45 kg
  - With Multi-Pos stand: 1.95 kg
  - With Multi-Pos holder: 1.65 kg
- For devices with ID 1089179-xx:
- 1.5 kg
  - With Single-Pos stand: 1.55 kg
  - With Duo-Pos stand 1.65 kg
  - With Multi-Pos stand: 2.15 kg
  - With Multi-Pos holder: 1.85 kg

## 19.3 Product dimensions and mating dimensions

All dimensions in the drawings are in millimeters.

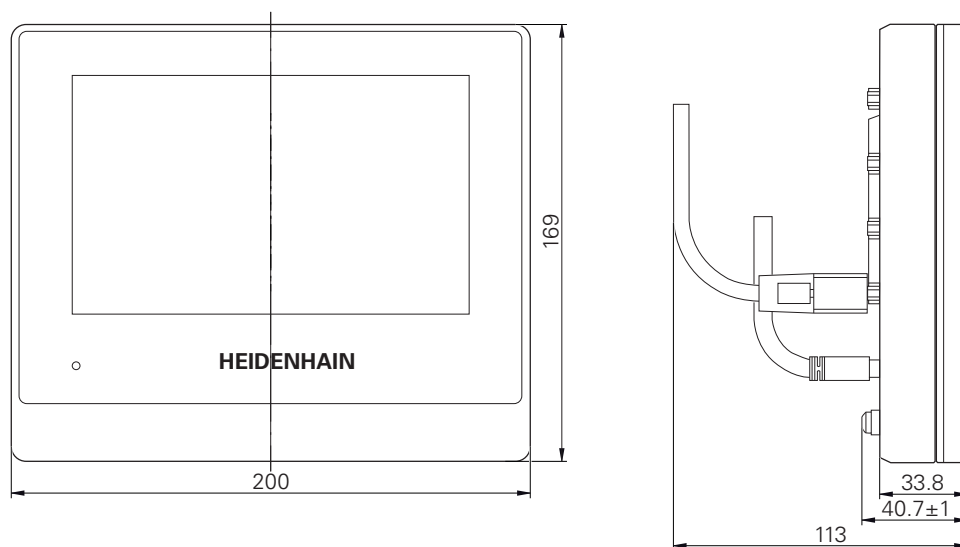


Figure 63: Housing dimensions for products with ID 1089178-xx

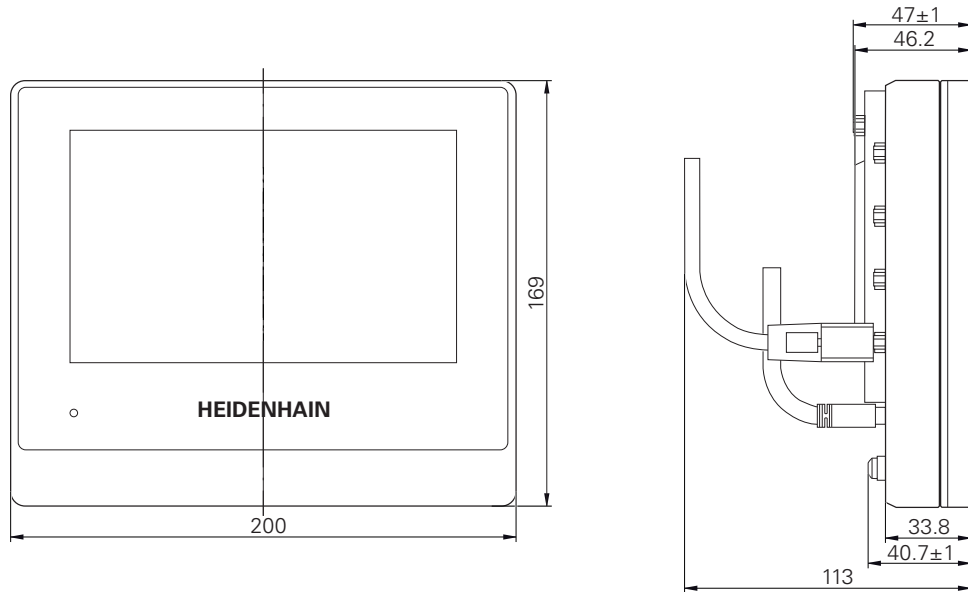


Figure 64: Housing dimensions for devices with ID 1089179-xx

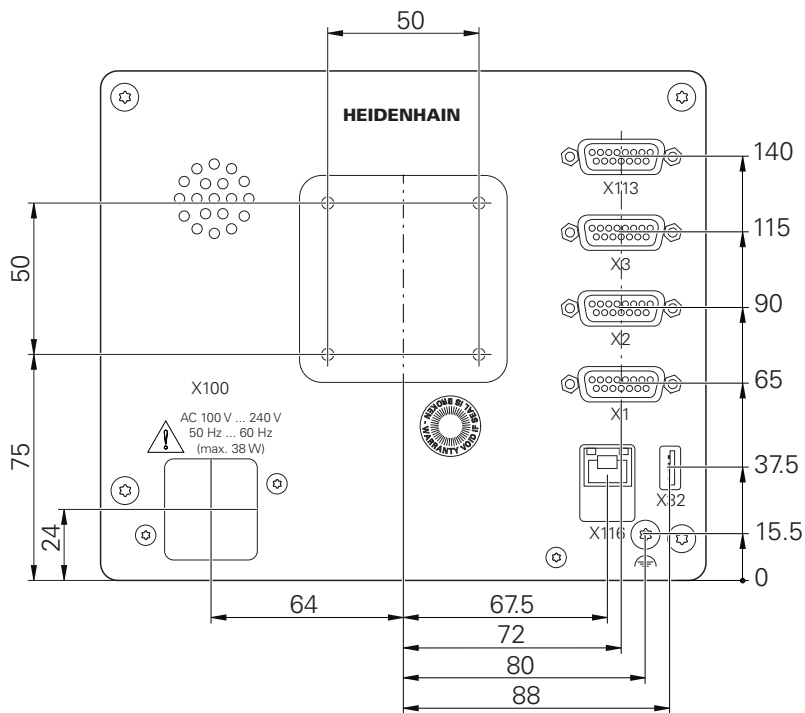


Figure 65: Dimensions of the rear panel for devices with ID 1089178-xx

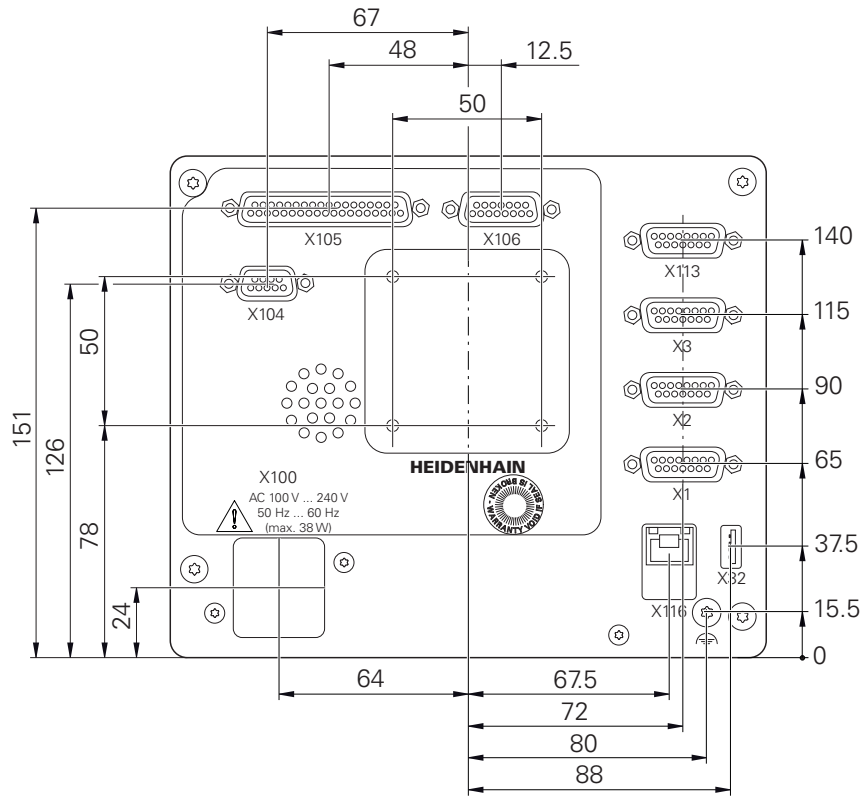


Figure 66: Dimensions of the rear panel for devices with ID 1089179-xx

### 19.3.1 Product dimensions with Single-Pos stand

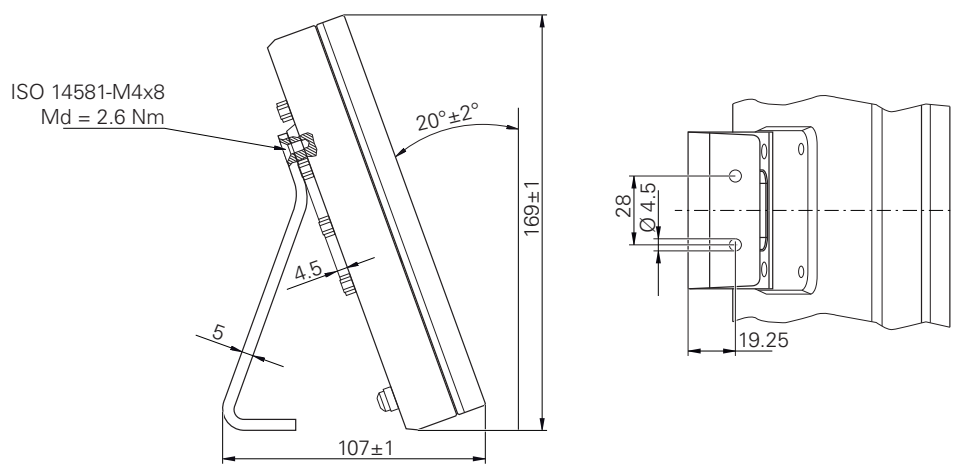


Figure 67: Product dimensions with Single-Pos stand