

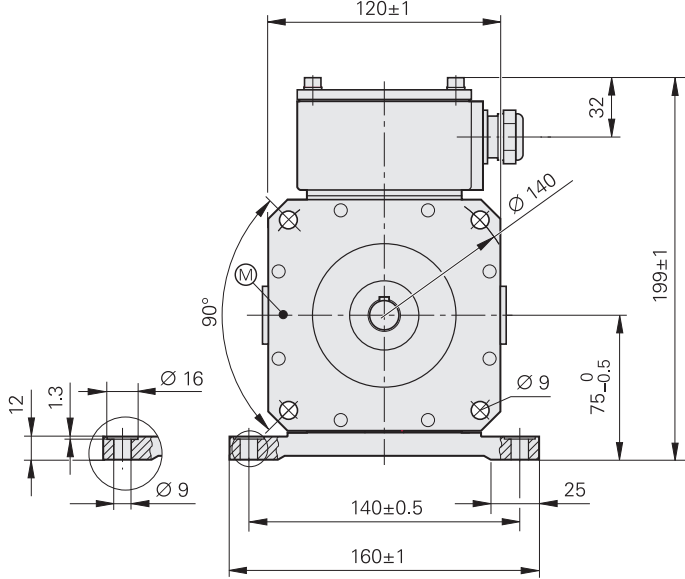
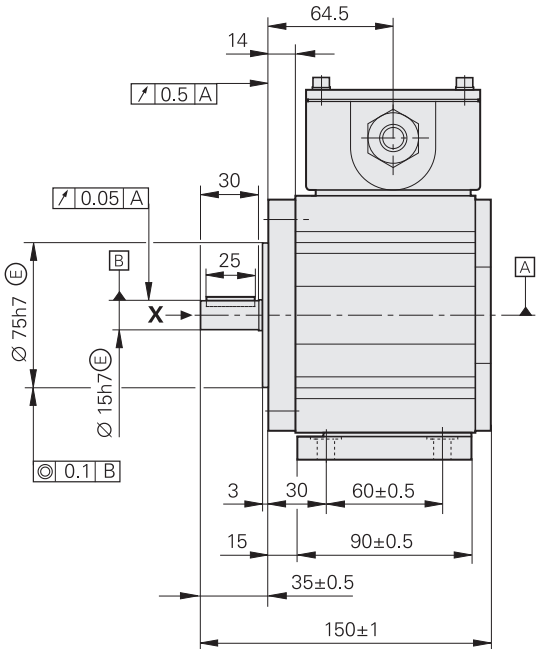
# ROD 1930

## Incremental rotary encoders

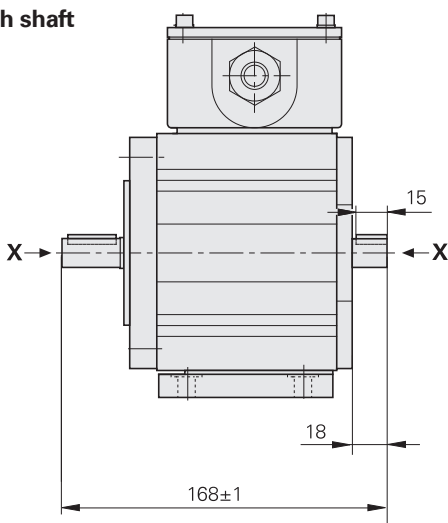
- For fastening with flange or base
- Solid shaft with key for separate shaft coupling



### Solid shaft



### Solid through shaft



Tolerancing ISO 8015  
ISO 2768:1989-mH  
≤ 6 mm: ±0.2 mm

- ⊠ = Bearing  
⊙ = Measuring point for operating temperature  
1 = Direction of shaft rotation for output signals as per the interface description

|                                                |                                                            |                               |
|------------------------------------------------|------------------------------------------------------------|-------------------------------|
|                                                | <b>Incremental</b>                                         |                               |
|                                                | <b>ROD 1930</b>                                            |                               |
| <b>Interface*</b>                              | <input type="checkbox"/> HTL                               | <input type="checkbox"/> HTLs |
| Line counts*                                   | 600    1024    1200    2400                                |                               |
| Reference mark                                 | –                                                          | One                           |
| Output frequency                               | ≤ 160 kHz                                                  |                               |
| Edge separation <i>a</i>                       | ≤ 0.76 µs                                                  |                               |
| <b>System accuracy</b>                         | ±1/10 of grating period                                    |                               |
| <b>Electrical connection</b>                   | Terminal box with screw terminals                          |                               |
| Supply voltage                                 | DC 10 V to 30 V                                            |                               |
| Current consumption<br>(typical, without load) | 15 V: 60 mA                                                |                               |
| <b>Shaft*</b>                                  | Solid shaft or solid through shaft (Ø 15 mm) with key      |                               |
| Mech. permissible speed                        | ≤ 4000 rpm                                                 |                               |
| Starting torque (typical)<br>at 20 °C          | Solid shaft: 0.05 Nm<br>Through shaft: 0.15 Nm             |                               |
| Moment of inertia of rotor                     | 2.5 · 10 <sup>–5</sup> kgm <sup>2</sup>                    |                               |
| Permissible angular<br>acceleration            | ≤ 4 · 10 <sup>4</sup> rad/s <sup>2</sup>                   |                               |
| Shaft load <sup>1)</sup>                       | Axial: ≤ 150 N<br>Radial: ≤ 200 N at shaft end             |                               |
| <b>Vibration:</b> 25 Hz to 200 Hz              | ≤ 100 m/s <sup>2</sup> (EN 60068-2-6)                      |                               |
| <b>Shock:</b> 6 ms                             | ≤ 1000 m/s <sup>2</sup> (EN 60068-2-27)                    |                               |
| <b>Operating temperature<sup>2)</sup></b>      | –20 °C to 70 °C                                            |                               |
| <b>Protection</b> EN 60529                     | IP66                                                       |                               |
| <b>Mass</b>                                    | ≈ 4.5 kg                                                   |                               |
| <b>Valid for ID</b>                            | Solid shaft: 1043373-xx<br>Solid through shaft: 1043377-xx |                               |

\* Please select when ordering

<sup>1)</sup> See also "Mechanical design types and mounting"

<sup>2)</sup> Special versions upon request (e.g., with water jacket)