The casting design and insensitivity to industrial pollution guarantee that ODAC® 2J / 16J operate trouble free even under the most hostile industrial conditions, which brings it ahead of its competitors. It is permanently calibrated for highest accuracy and stability.

ODAC® 2J / 16J are able to measure all materials and products and does not mind whether they are opaque or transparent. It is the best low-cost and technical solution for measuring on-line and off-line processes such as drawing, extruding, grinding, polishing, measuring samples (quality control) and many more.

Main Advantages
- Astonishingly low-priced, achieved through High Volume Production
- Very high tolerance to hostile conditions
- All products and materials
- For fine wire and fibres from 0.012 mm (.005 in.) up
- Extremely long-lived
- Can be installed anywhere, in any position

Practically all USYS and WIREMASTER processors, CI computer interfaces and the AT 4 display and alarm unit can work with ODAC® 2J / 16J to fulfil numerous functions such as:
- Product parameter library
- Storage of min./max. value
- Closed loop process control
- Statistical reel report
- Real-time SPC charts
- Measurement and control of:
  - Outer diameter
  - Inner diameter
  - Wall thickness
- Ready for computer networking
### Measuring heads ODAC 2J / 16J with corresponding processors

![Image of measuring heads and processors](image)

#### Technical Data

<table>
<thead>
<tr>
<th>Model</th>
<th>ODAC 2J</th>
<th>ODAC 16J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring field M</td>
<td>2 mm (.079 in.)</td>
<td>16 mm (.64 in.)</td>
</tr>
<tr>
<td>Min. object diameter</td>
<td>0.012 mm (.0005 in.)</td>
<td>0.050 mm (.002 in.)</td>
</tr>
<tr>
<td>Scanning frequency</td>
<td>240 scans/s</td>
<td>240 / 480 scans/s</td>
</tr>
<tr>
<td>Scanning speed</td>
<td>18.8 m/s (61.68 ft./s)</td>
<td>24 m/s (78.74 ft./s) at 240 scans/s, 48 m/s (157.48 ft./s) at 480 scans/s</td>
</tr>
<tr>
<td>Measurement error</td>
<td>± 0.3 µm; range 0.012...1.0 mm (± .00001 in.; range .0005 ... .04 in.)</td>
<td>± 0.5 µm, ± 0.1 ‰; from 8 mm ± 0.3 ‰ (± .000019 in., ± 0.1 ‰; from .3 in. ± 0.3 ‰)</td>
</tr>
<tr>
<td>Repeatability (3σ)</td>
<td>0.45 µm (± .000018 in.), averaging time 0.1 s</td>
<td>0.15 µm (± .000006 in.), averaging time 1 s</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1 µm (± .000004 in.)</td>
<td></td>
</tr>
<tr>
<td>Light source</td>
<td>VLD (Visible Laser Diode), class II</td>
<td></td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>Operating: 0...45 °C (0...113 °F); Transport / Storage: -20...50 °C (-4...122 °F)</td>
<td></td>
</tr>
<tr>
<td>Max. atmospheric humidity</td>
<td>95% (non condensing)</td>
<td></td>
</tr>
<tr>
<td>Altitude</td>
<td>0...3000 m (0...9843 ft.) over sea level</td>
<td></td>
</tr>
<tr>
<td>Type of protection</td>
<td>IP 65</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>Supplied by the processor unit (24 V)</td>
<td></td>
</tr>
<tr>
<td>Power consumption</td>
<td>Max. 5 W</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>1.7 kg (3.7 lbs.)</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>See page 1</td>
<td></td>
</tr>
<tr>
<td>Data acquisition system (Processors)</td>
<td>AT 4, WIREMASTER, USYS 20, USYS 200, USYS IPC 1e, USYS IPC 2e, CI 1J/EN-RS, CI 1J/EN-DP, CI 1J/EN-EN, CI 1J/EN-PN, CI 1J/EN-EI</td>
<td></td>
</tr>
</tbody>
</table>

1) M stands for measuring field height. In practice, the largest object diameter corresponds to measuring field height minus instability of position.

2) System resolution is the smallest practical value on the last digit of the display.

3) Scanning frequency 480 scans/s only with measured object diameter larger than 0.1 mm (.004 in.).

4) Maximum power of the laser can be read on the warning label.

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All units, which are equipped with lasers, were designed to meet the regulations CDRH (USA), IEC/EN 60825-1-2014_DIN/VDE 0837. They hold the warning and explanatory labels prescribed by CDRH or IEC/EN 60825-1-2014.
## Accessories

### Description | Order number | Description | Order number
--- | --- | --- | ---
Floor stand ST2-ODAC16 Vertically adjustable. | ST02.060.65000 | Set of calibration standards ODAC 2 For VR1M guide. Delivered in a protection box, comprising: – Calibration standard ø 0.05 mm – Calibration standard ø 0.5 mm – Certificate Other calibration standards on request. | ODAC.9500.10000

Line height (H): 880...1220 mm (34.7...48 in.)

- ODAC 2J
- ODAC 16J

Floor stand ST2-ODAC16 Vertically adjustable with 45° tilt. | ST02.060.65020 | Set of calibration standards ODAC 16 Delivered in a protection box, comprising: – Calibration standard holder – Calibration standard ø 1 mm – Calibration standard ø 6 mm – Certificate Other calibration standards on request. | ODAC.9500.35000

Line height (H): 880...1220 mm (34.7...48 in.)

- ODAC 2J
- ODAC 16J

Mountable support for ST2 Lateral support, including rotary holder (USY.0002.910) for table top version of the USYS 20 processor. | ST02.060.190 | Protective shield ODAC 2/16J To protect additionally the measuring head against severe pollution and damage. | ODAC.161.920

- ODAC 2J
- ODAC 16J

Rotary holder USY 20 | USY.0002.910 | Air curtain LV16-ODAC16 Keeps the measuring area free of dust, water, talk etc. Composed of 2 compressed-air jet units. | ODAC.161.900

- ODAC 2J
- ODAC 16J

Fixation set for wall mounting (with pivot arm) USY.0002.920 | USY.0002.920 | Maintenance kit Cleans and keeps the compressed air free of dirt. Features: Filter regulators, submicrofilter, manometer, pressure difference display, automatic condensate emptying and wall fixture. | A34 200 0050

- ODAC 2J
- ODAC 16J

Fixation set for table top USY 20 | USY.0002.930 | | |

- ODAC 2J
- ODAC 16J

Maintenance kit A34 200 0050

Other calibration standards on request.
Ordering information

When ordering, specify the following (A, B, C):

A  Measuring head model ODAC 2J / ODAC 16J.

B   Length of the connection cable between ODAC measuring head and the processor; available lengths: 1, 2, 5, 10, 15, 20, 25 and 30 m (3.3, 6.6, 16.4, 32.8, 49.2, 65.6, 82 and 98.5 ft.). Longer cables on request.

C   Processor model (data acquisition system): AT 4, WIREMASTER, USYS 20, USYS 200, USYS IPC 1e, USYS IPC 2e, CI 1J/EN-RS, CI 1J/EN-DP, CI 1J/EN-EN, CI 1J/EN-PN, CI 1J/EN-EI. ▶ Ask for corresponding data sheets.

Specifications are subject to change without notice.