The ODAC® 60 measuring head uses the latest laser scanning technology. It is manufactured with a modular design. It is available with a support rail or as individual emitter and receiver parts when a maximum of flexibility is required to install the head in any position. The ODAC® 60 head can also be installed in constricted confines or several emitter/receiver pairs can be mounted in the same plane. The head is offered with a complete range of accessories and interface units for optimal integration into almost any process and thus can be used for all products.

ODAC® 60 is available in following versions:
- J version (standard version)
- JP version (for profile measurement)
- JN version (with narrow beam for contour measurement)

These versions are also available in the JS version, i.e. for the external synchronization of 2 units by means of the CI 2JS/1J unit or of multiple axis systems like the STEELMASTER SMO or SMS systems.

Typical Applications
- Cable extrusion, hoses, profiles etc.
- Metal/steel processes such as drawing, grinding, bar, tubing etc.
- Testing (NDT) for all kinds of product
- Food, packing, medical tubing etc.

Advantages
- Very high scan rate
- Highest precision
- Single scan Calibration CSS
- Single scan monitoring
- Data rate up to 333/s (depending on version of measuring head, number of transmitted measured values as well as the baud rate of the interface)
- Compact and rugged design
- Flexible mounting
- Special beam geometries available:
  - Parallel beam for profiles and similar
  - Narrow beam for contour measurements
- Different measuring modes, e.g. for diameter, gap, penetration, multiple measurement etc.

Options / Accessories (see also page 3)
F versions:
- Double scan rates as the standard versions, i.e. more measurements per time unit
- Maximum fault detection (lumps/neckdowns) at increased line speeds
- FFT/SRL analysis with higher bandwidths
- Diagnostic output
- Synchronization* of multiple ODAC measuring heads
- Computer interface CI 1J/EN-xx for RS-232/-422/-485, Profinbus DP, Ethernet TCP/IP, Profinet IO, EtherNet/IP
- Protection windows
- Guides (upon customer specific request)

* Signal processing with special USYS unit

Special Applications
Measurement of hot steel with STEELMASTER systems:
- SMO: Oscillating 2, 3, 4 or 6 axis systems
- SMS: Static 2, 4 or 6 axis systems

Ask for special data sheets on STEELMASTER hot steel systems
ODAC 60J with the corresponding processors

The measured signals are forwarded to the processor unit through a connection cable. Signal processing, automatic line or process control, tolerance limit monitoring and many additional functions are carried out by this processor.

Dual head measuring systems with USYS processor

A measuring system for a dual plane (XY) measurement configuration or for a larger measuring field can be set up with two ODAC 60JK, an USYS IPC 1e / 2e processor.

Configurations with CI compact boxes

ODAC 60J single head configuration with computer interface CI-1J/EN-RS, -DP, -EN, -PN, -EI

The computer interfaces are used as connections to a higher-level computer system. According to the execution, the host interface may be an RS-232/-422/-485, a Profibus DP, an Ethernet TCP/IP, a Profinet IO or an EtherNet/IP interface.

ODAC 60JS dual head measuring system with synchronization box CI 2JS/1J

Thanks to this synchronization box, it is possible to use two ODAC 60 measuring heads of the JS models. This allows special configurations, e.g. for a 2 axis (XY) measurement or for a larger measuring field.

Accessories

Floor stand ST2-ODAC 60.DT60 ST02.100.75000
Vertically adjustable.
Line height (H): 900...1200 mm (35.4...47.25 in.)

Swivel floor stand ST6-ODAC 60J ST06.144.60000
Vertically adjustable.
Line Height: 860...1160 mm (33.86...45.67 in.)
Swivel angle: 90° (upward)

Mountable support for ST2 ST02.060.190
Lateral support, including rotary holder (USY.0002.910) for table top version of the USYS 20 processor.

Rotary holder USYS 20 USY.0002.910
Fixation set for wall mounting (with pivot arm) USY.0002.920
Fixation set for table top USY.0002.930

Set of calibration standards ODAC 60 ODAC.9500.87000
Delivered in a protection box, comprising:
– Calibration standard holder
– Calibration standards ø 2 and 40 mm
– Certificate
Other calibration standards on request.

Limiting socket VF60-ODAC60 ODAC.601.400
Air curtain LV.G-ODAC 60 ODAC.601.920
Blower unit GE 7, 0.55kW GE.701.07000
Deviation unit ODAC 60-90° ODAC.601.940
Dimensions

**ODAC 60J**
**ODAC 60JS**
**ODAC 60JP**
**ODAC 60JSP**
**ODAC 60JN**
**ODAC 60JSN**

**ODAC 60JK**
**ODAC 60JSDK**
**ODAC 60JKP**
**ODAC 60JSPK**
**ODAC 60JNK**
**ODAC 60JSN**

### Connection cable between emitter and receiver

<table>
<thead>
<tr>
<th>Order number</th>
<th>Length m/ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.ODAC.601.3340</td>
<td>4</td>
</tr>
<tr>
<td>B.ODAC.601.3330</td>
<td>3</td>
</tr>
<tr>
<td>B.ODAC.601.3325</td>
<td>2</td>
</tr>
<tr>
<td>B.ODAC.601.3320</td>
<td>1.5</td>
</tr>
<tr>
<td>B.ODAC.601.3315</td>
<td>1.5</td>
</tr>
<tr>
<td>B.ODAC.601.3310</td>
<td>0.9</td>
</tr>
<tr>
<td>B.ODAC.601.3305</td>
<td>0.9</td>
</tr>
<tr>
<td>B.ODAC.601.3300</td>
<td>0.5</td>
</tr>
</tbody>
</table>

### Laser position

**Dimensions in mm (inch)**
**Technical Data**

### Measurement

<table>
<thead>
<tr>
<th>Model(s)</th>
<th>ODAC 60J</th>
<th>ODAC 60JP</th>
<th>ODAC 60JN</th>
<th>ODAC 60JS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>Standard</td>
<td>Profile measurement</td>
<td>Narrow Beam</td>
<td>Same with synchronization input</td>
</tr>
<tr>
<td>Measuring Field M 1)</td>
<td>60 mm (2.36 in.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. object ø</td>
<td>0.25 mm (.01 in.)</td>
<td>0.6 mm (.024 in.)</td>
<td>0.20 mm (.007 in.)</td>
<td>see J/P/JN</td>
</tr>
<tr>
<td>Scanning frequency scans/s</td>
<td>Standard option</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Width of laser beam</td>
<td>4.5 mm (.18 in.)</td>
<td>4.5 mm (.18 in.)</td>
<td>0.5 mm (.02 in.)</td>
<td>see J/P/JN</td>
</tr>
</tbody>
</table>

#### Technical specifications

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

2) Valid for object diameter bigger than “Min. object ø” and smaller than 95% from “measuring field M”. The centre of the object is at the “measuring distance D” as well as in the middle of the “measuring field M”.

3) The measured borders of the object must be within this measuring zone. The centre of this measuring zone is at the “measuring distance D” as well as in the middle of the “measuring field M”.

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

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

6) Measured in the measuring plane, including lateral Jitter of the scans.

7) For a measuring distance of 60 mm (2.36 in.), the minimum object diameter is 0.16 mm (.0063 in.).

---

### Ordering Information

When ordering, please specify the following:

1. **Models**: ODAC 60J/JP/J/N (K) for “K” Version: specify the measuring distance D (see page 3).

2. **Connection cable**:

   2a Length of the connection cable between ODAC 60Jx and the processor. Available lengths: 1, 2, 3, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50 m, each 10 m up to 200 m, 220 m, 240 m (3.3, 6.6, 10, 16, 33, 50, 65, 82, 98, 115, 131, 147, 164 ft., each 10 m up to 656 ft., 722 ft., 787 ft.). Longer cables on request.

   2b For **K** versions (without rail):

   Length of the connection cable between emitter and receiver: minimum length = 2 x measuring distance D + 0.3 m (1 ft.) (available lengths see tables ODAC 60JK on page 3).

3. **Processor model** (Data acquisition system):

   WIREMASTER, USYS 20, USYS 200, USYS IPC 1e, USYS IPC 2e, CI 11/EN-RS, CI 11/EN-DF, CI 11/EN-EN, CI 11/EN-PN, CI 11/EN-El. 

   ![For corresponding data sheets](https://example.com/data_sheet)

---

### Worldwide Customer Service and Sales Offices

**North American Headquarters**

Zumbach Electronics Corp.
140 Kisco Avenue
Mount Kisco, NY 10549-1407
USA
Phone +1 914 241 7080
sales@zumbach.com

**Worldwide Customer Service and Sales Offices**

<table>
<thead>
<tr>
<th>Country</th>
<th>Office Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELGIUM</td>
<td><a href="mailto:sales@zumbach.be">sales@zumbach.be</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHINA P.R.</td>
<td><a href="mailto:sales@zumbach.com.cn">sales@zumbach.com.cn</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRANCE</td>
<td><a href="mailto:ventes@zumbach.com.fr">ventes@zumbach.com.fr</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GERMANY</td>
<td><a href="mailto:verkau@zumbach.de">verkau@zumbach.de</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDIA</td>
<td><a href="mailto:sales@zumbachindia.com">sales@zumbachindia.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITALY</td>
<td><a href="mailto:zumit@zumbach.it">zumit@zumbach.it</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAIN</td>
<td><a href="mailto:gestion@zumbach.es">gestion@zumbach.es</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAIWAN</td>
<td><a href="mailto:info@zumbach.tw">info@zumbach.tw</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td><a href="mailto:sales@zumbach.co.uk">sales@zumbach.co.uk</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Zumbach Agencies**

<table>
<thead>
<tr>
<th>Zumbach Companies</th>
</tr>
</thead>
</table>

---

**CAUTION**

Do not stare into beam.

**CLASS 2 LASER PRODUCT**


Each 10 m up to 656 ft., 722 ft., 787 ft.)

0.5 µm (0.00002 in.)

0.2 µm (0.00008 in.)

0.1 µm (0.000004 in.)

VLD (Visible Laser diode) 650 nm, class 2

Flashing LED on the measuring head (relay output 48 V / 0.5 A as option)

Supplied by the processor unit (24 V)

1, 2, 3, 4, 5, 1, 6, 7

* Technical specifications are subject to change without notice