Description

With these portable aircraft scales you can weigh fixed-wing aircraft and helicopters safely and accurately at their jack points. The scales are assembled according to your requirements from several jack point scales with data transfer by cable or radio and special software. The individual weighing units can accept loads up to 50,000 kg per jack point. It is possible to combine weighing units with different nominal loads. With the aid of the appropriate aircraft weighing software, you can evaluate up to six weighing units on a PC. The display shows the individual loads at jack points, the loads on each side, and the total load. Measurement data can be saved, printed, and exported to Microsoft Excel.

These scales can be used to weigh many different types of aircraft: powered aircraft, historic aircraft, business and commercial jets, and helicopters. Typical applications are routine weight checks and centre of gravity determinations, and weight checks following repair or modifications to an aircraft.

Features

- height accuracy
- simple handling
- compact design
- nominal loads from 500 kg to 50,000 kg per jack point
- Certification of sensors to OIML R60
- maintenance-free

Applications

- weight checks
- centre of gravity determination
Technical data for scales

Cable-connected version

System components
- Jack-point weighing units Type JW, including AD converter and connector socket
- Converter box with mains adapter
- Cable connections

Power supply
- Aircraft Scales Software 1.0
- Mains adapter 220 V / 12 V DC
- Alternative: mobile 12 V power supply or vehicle network

Connecting cable
- Unitronic FD-CP / 4 x 0.25 mm², 4, 10, 15 or 25 m long
- (other lengths on request)

Degree of protection of converter
- IP 40

Version with radio transmission

System components
- Type JWF jack-point weighing units, including radio transmitter and batteries
- Radio-USB stick, 2.4 GHz
- Mains adapter 220 V
- Aircraft-weighing Software 1.0

Range
- Up to 50 m

Power supply
- Integral batteries, operating time ca. 15 h

Selection table for jack point weighing units

<table>
<thead>
<tr>
<th>Type</th>
<th>Nominal load</th>
<th>Display steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>JW(F) 1.0</td>
<td>500 kg / 1000 lb</td>
<td>0.1 kg / 0.1 lb</td>
</tr>
<tr>
<td>JW(F) 2.0</td>
<td>1000 kg / 2000 lb</td>
<td>0.1 kg / 0.1 lb</td>
</tr>
<tr>
<td>JW(F) 3.0</td>
<td>2000 kg / 4000 lb</td>
<td>0.5 kg / 0.5 lb</td>
</tr>
<tr>
<td>JW(F) 4.0</td>
<td>5000 kg / 10000 lb</td>
<td>1 kg / 1 lb</td>
</tr>
<tr>
<td>JW(F) 5.0</td>
<td>10000 kg / 20000 lb</td>
<td>1 kg / 1 lb</td>
</tr>
<tr>
<td>JW(F) 6.0</td>
<td>30000 kg / 60000 lb</td>
<td>5 kg / 5 lb</td>
</tr>
<tr>
<td>JW(F) 7.0</td>
<td>50000 kg / 100000 lb</td>
<td>5 kg / 5 lb</td>
</tr>
</tbody>
</table>

Technical data for jack point weighing units

Measurement principle
- Strain gauge

Overload
- 1.25-times nominal load

Accuracy
- ±0.1 % f.s.

Operating temperature range
- -10 °C to +40 °C

Storage temperature range
- -30 °C to +70 °C

Degree of protection
- IP 65
Aircraft scales: Weighing at jack points

### Dimensions of jack point weighing units

**JW(F) 1.0 / 2.0**

- **Dimensions in mm**

**JW(F) 4.0 - 7.0**

- **Dimensions in mm**

<table>
<thead>
<tr>
<th>Type</th>
<th>Length L</th>
<th>Height H</th>
<th>B1</th>
<th>B2</th>
<th>D</th>
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</thead>
<tbody>
<tr>
<td>JW(F) 4.0</td>
<td>180</td>
<td>98</td>
<td>49</td>
<td>101</td>
<td>30</td>
</tr>
<tr>
<td>JW(F) 5.0</td>
<td>180</td>
<td>109</td>
<td>49</td>
<td>101</td>
<td>53</td>
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<tr>
<td>JW(F) 6.0</td>
<td>206</td>
<td>135</td>
<td>63</td>
<td>116</td>
<td>64</td>
</tr>
<tr>
<td>JW(F) 7.0</td>
<td>216</td>
<td>173</td>
<td>68</td>
<td>121</td>
<td>74</td>
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</table>

### Dimensions of the adapter used to attach weighing units to the lifting devices

**Cylindrical adapter**

- M16 thread to screw into weighing unit

<table>
<thead>
<tr>
<th>Adapter</th>
<th>Length L</th>
<th>D</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>36.2</td>
<td>19.0</td>
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<tr>
<td>2</td>
<td>36.2</td>
<td>21.0</td>
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<tr>
<td>3</td>
<td>36.2</td>
<td>25.0</td>
</tr>
</tbody>
</table>

**Hexagonal adapter**

- M16 thread to screw into weighing unit

Dimensions in mm
Aircraft Scales Software 1.0

Connection of 1 to 6 jack point weighing units
Display all loads
Prepare a weighing report
Export to Microsoft Excel
Operating systems:
Win 2000, XP, Vista and Win 7

Aircraft class: Air Plane
Type of aircraft: ATR42-200
Aircraft registrad.: D-Cxxx
Airline: Air Freiburg
Weight empty: 9972 kg
max. Take-off weight: 15749 kg

<table>
<thead>
<tr>
<th>Group</th>
<th>Left</th>
<th>Middle</th>
<th>Right</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
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<td>X</td>
<td>50</td>
<td>X</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>X</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>Sum</td>
<td>20</td>
<td>50</td>
<td>15</td>
<td>85</td>
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</table>

Notice:

Time: 11:29
Date: 01.06.2010
Signature: 

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