

# SPECIFICATIONS

## WF132TU02 5¼" die cast mid/woofer, 4 ohm, automotive

WF132TU02 is a mid/woofer designed for demanding bass and midrange applications. It works equally well for most applications but was designed especially for automotive high-end sound systems. The very rigid die cast alu chassis follows the common standard dimensions for easy installation in cars.

### FEATURES

- Very rigid die cast alu chassis to withstand challenging car applications
- Built-in alu field-stabilizing ring for reduced high-level distortion
- Vented voice coil former for reduced distortion and compression
- Vented chassis for lower air flow speed reducing audible distortion
- Heavy-duty black fiber glass voice coil bobbin to increase power handling and reduce mechanical losses resulting in better dynamic performance and low-level details
- Large motor system with 1¼" voice coil diameter and large 90 mm magnet for better control, power handling, and efficiency
- Linear suspension with specially designed Conex damper (spider) for long durability under extreme operating conditions
- Gold plated terminals to prevent oxidation for long-term reliable connection - important in a car environment



### NOMINAL SPECIFICATIONS

| Notes | Parameter  | Before burn-in | After burn-in | Unit               |
|-------|--|----------------|---------------|--------------------|
|       | Nominal size   | 5¼             |               | [inch.]            |
|       | Nominal impedance  | 4              |               | [ohm]              |
|       | Recommended max. upper frequency limit                         | 4              |               | [kHz]              |
| 1     | Sensitivity, 2.83V/1m (average SPL in range 200 - 1,000 Hz)    | 90             |               | [dB]               |
| 2     | Power handling, short term, IEC 268-5, no additional filtering |                |               | [W]                |
| 2     | Power handling, long term, IEC 268-5, no additional filtering  |                |               | [W]                |
| 2     | Power handling, continuous, IEC 268-5, no additional filtering | 55             |               | [W]                |
|       | Effective radiating area, S <sub>d</sub>                       | 95             |               | [cm <sup>2</sup> ] |
| 3, 6  | Resonance frequency (free air, no baffle), F <sub>s</sub>      | 62             |               | [Hz]               |
|       | Moving mass, incl. air (free air, no baffle), M <sub>ms</sub>  | 10.0           |               | [g]                |
| 3     | Force factor, B <sub>xl</sub>                                  | 6.2            |               | [N/A]              |
| 3, 6  | Suspension compliance, C <sub>ms</sub>                         | 0.66           |               | [mm/N]             |
| 3, 6  | Equivalent air volume, V <sub>as</sub>                         | 9.0            |               | [lit.]             |
| 3, 6  | Mechanical Q, Q <sub>ms</sub>                                  | 8.0            |               | [-]                |
| 3, 6  | Electrical Q, Q <sub>es</sub>                                  | 0.46           |               | [-]                |
| 3, 6  | Total Q, Q <sub>ts</sub>                                       | 0.44           |               | [-]                |
| 4     | Voice coil resistance, R <sub>DC</sub>                         |                | 3.2           | [ohm]              |
| 5     | Voice coil inductance, L <sub>e</sub> (measured at 10 kHz)     |                | 0.23          | [mH]               |
|       | Voice coil inside diameter                                     |                | 32            | [mm]               |
|       | Voice coil winding height                                      |                | 11            | [mm]               |
|       | Air gap height   |                | 5             | [mm]               |
|       | Magnet weight  |                | 400           | [g]                |
|       | Total unit net weight excl. packaging                          |                | 1.08          | [kg]               |
| 3, 5  | K <sub>rm</sub>  |                | 0.13          | [mohm]             |
| 3, 5  | E <sub>rm</sub>  |                | 0.99          | [-]                |
| 3, 5  | K <sub>xm</sub>  |                | 4.2           | [mH]               |
| 3, 5  | E <sub>xm</sub>  |                | 0.71          | [-]                |

Note 1 Measured in infinite baffle.

Note 2 Tested in free air (no cabinet).

Note 3 Measured using a semi-constant current source, nominal level 2 mA.

Note 4 Measured at 20 deg. C

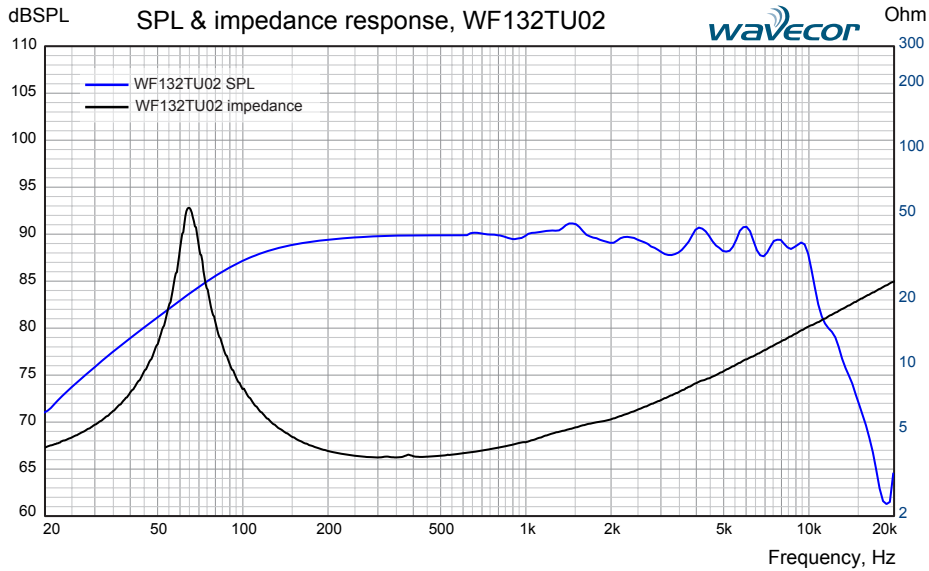
Note 5 It is generally a rough simplification to assume that loudspeaker transducer voice coils exhibit the characteristics of an inductor. Instead it is a far more accurate approach to use the more advanced model often referred to as the "Wright empirical model", also used in LEAP-4 as the TSL model ([www.linearx.com](http://www.linearx.com)), involving parameters K<sub>rm</sub>, E<sub>rm</sub>, K<sub>xm</sub>, and E<sub>xm</sub>. This more accurate transducer model is described in a technical paper [here at our web site](#).

Note 6 After burn-in specifications are measured 12 hours after exiting the transducer by a 20 Hz sine wave for 2 hours at level 10 VRMS. The unit is not burned in before shipping.

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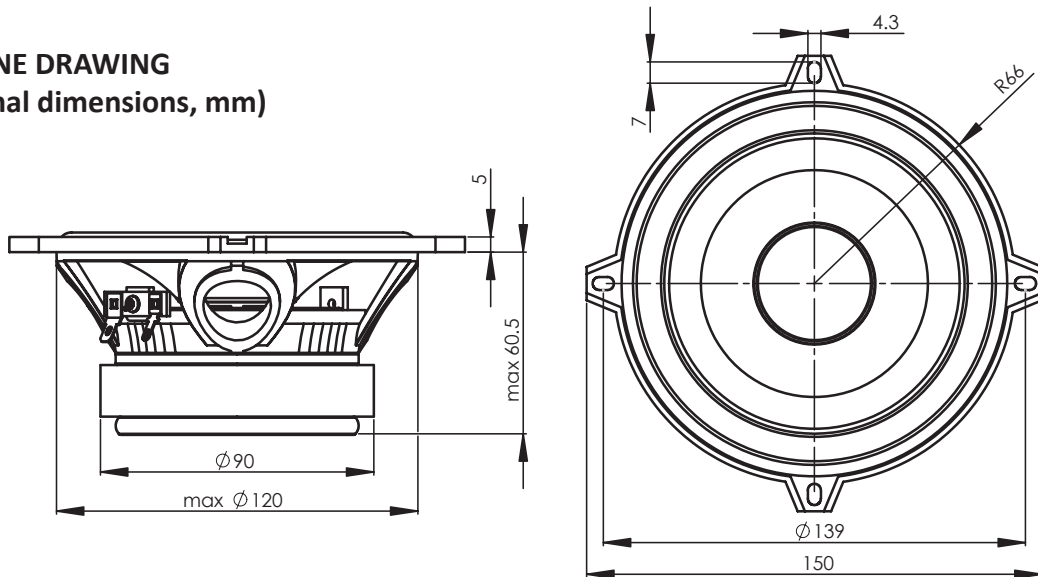
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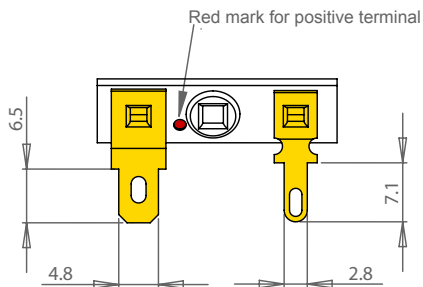
**Measuring conditions, SPL**  
 Driver mounting: Flush in infinite baffle, back side open (no cabinet)  
 Microphone distance: 1.0 m  
 Input level: 2.83 V<sub>RMS</sub>  
 Smoothing: 1/6 oct.

**Measuring conditions, impedance**  
 Driver mounting: Free air, no baffle, back side open (no cabinet)  
 Input signal: Semi-current-drive, nominal current 2 mA  
 Smoothing: None

### OUTLINE DRAWING (nominal dimensions, mm)



### CONNECTIONS



Thickness, both terminals: 0.5 mm  
 Terminal plating: Gold

### PACKAGING AND ORDERING INFORMATION

|                       |  |
|-----------------------|--|
| Part no. WF132TU02-01 | Individual packaging (one piece per box) |
| Part no. WF132TU02-02 | Bulk packaging                           |

Latest update: September 26, 2014