

# A4900 Vibrio M Ex

Vibration Meter, Analyzer and Data Collector



**FREE  
TRAINING**

**1** YEAR  
WARRANTY





## A4910 LUBRI

OPTIMIZING THE LUBRICATION PROCESS



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## A4900 VIBRIO M EX

DATA COLLECTOR  
IN INTRINSICALLY SAFE VERSION

The Vibrio M is now also available in an Ex version. All basic vibrodiagnostics measurements are available: Overall Values, FFT Spectrum, Time signal, Frequency bands, Route measurement or Expert system. You can listen to the signal with the headphones supplied with every unit.

The Vibrio M Ex communicates with the DDS software, which you can download for free from the Adash website.

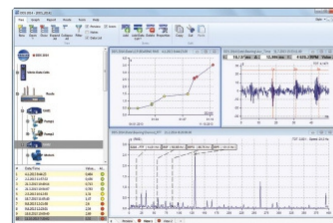


Ex certification:: II 2 G Ex ib IIC T4 Gb

|       |  |
|-------|--|
| II    | Non-mining   |
| 2     | Zone 1   |
| G     | Gas atmosphere   |
| Ex ib | Principle of protection:<br>Intrinsic Safety EN 60079-11, Zone 1 |
| IIC   | Gas group - Acetylene, Hydrogen                                  |
| T4    | Temperature class 135°C  |
| Gb    | Equipment Protection Level – Zone 1<br>(high protection)         |



Free DDS software  
for Vibrio M Ex



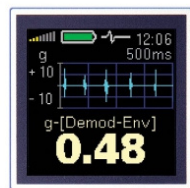


### MEASUREMENTS

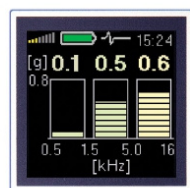
- > ISO value [mm/s, ips]
- > Bearing value [g]
- > ISO 10816-3 included
- > Automatic speed detection



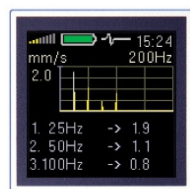
Overall values



Time signal



Frequency bands



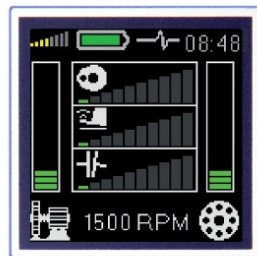
FFT Spectrum



Route measurement

### EXPERT SYSTEM

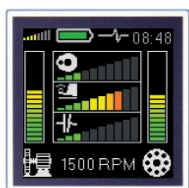
- > Enables automatic machine fault detection on site



Machine OK



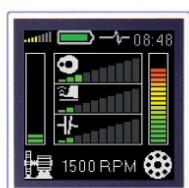
Unbalance



Looseness



Misalignment

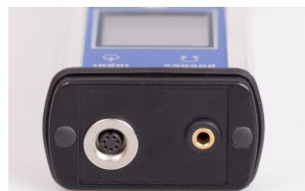


Bearing fault



### SIMPLE TO USE

- > Three button operation
- > All functions are predefined
- > Expert functions for fault detection
- > Colour graphic display



### TOP PANEL

- > ACC ICP® - sensor input
- > Stethoscope output
- > USB for data transfer



### INDUSTRIAL DESIGN

- > Heavy-Duty aluminium case
- > Energizer L91 Ultimate Lithium AA batteries
- > 7 hours of operation

## A4900 VIBRIO M EX TECHNICAL SPECIFICATIONS:

|                                |   |
|--------------------------------|---|
| <b>Input:</b>                  | 1x ICP <sup>®</sup> powered Ex accelerometer (AC90x or AC91x)   |
| <b>Input range:</b>            | 60 g PEAK with standard 100 mV/g sensor   |
| <b>Measurements:</b>           | Velocity RMS: 10 - 1 000 Hz [mm/s, ips]<br>Velocity PEAK: 10 - 1 000 Hz [mm/s, ips]<br>Acceleration RMS: 500 - 16 000 Hz [g]<br>Acceleration Peak: 500 - 16 000 Hz [g]<br>Velocity time: 1 - 1 000 Hz [mm/s, ips], 2048 samples *<br>Velocity spectrum: 1 - 1 000 Hz [mm/s, ips], 800 lines<br>Acceleration time: 1 - 16 000 Hz [g], 2048 samples*<br>Acceleration spectrum: 1 - 16 000 Hz [g], 800 lines*<br>Acceleration Demod-Envelope RMS: 500 - 16 000 Hz [g]<br>Acceleration Demod-Envelope Peak: 500 - 16 000 Hz [g]*<br>Acceleration Demod-Envelope time: 500 - 16 000 Hz [g], 2048 samples<br>Acceleration Demod-Envelope spectrum: 500 - 16 000 Hz [g], 800 lines, range 400 Hz*<br>Displacement RMS: 2 - 100 Hz [µm, mil]<br>Displacement O-Peak: 2 - 100 Hz [µm, mil]<br>Displacement Peak-Peak: 2 - 100 Hz [µm, mil] |
| <b>Other functions:</b>        | Vibration stethoscope   |
| <b>Memory:</b>                 | 4 MB for data<br>900 measurements of 800 line spectra or 2048 sample time signals may be stored   |
| <b>Data storing:</b>           | Off-Route<br>Route with DDS software for Vibrio M Ex (free download)  |
| <b>Interface:</b>              | USB 2.0 compatible  |
| <b>Software:</b>               | DDS software for Vibrio M Ex (free download)  |
| <b>Display:</b>                | Colour graphic OLED display 128x128 pixels, diagonal 1.5" (38 mm)   |
| <b>Output:</b>                 | 1x AC signal 8 Ω / 0,5 W for external headphones (signal listening)   |
| <b>Power:</b>                  | 2 x AA 1.5V batteries (Energizer L91 Ultimate Lithium - 7 hours operation)  |
| <b>Temperature:</b>            | Operating: -20°C to 50°C  |
| <b>Dimensions:</b>             | 150 x 60 x 35 mm  |
| <b>Weight:</b>                 | 330 g including batteries (without cable, sensor and magnet)<br>540 g including batteries, cable, sensor and magnet   |
| <b>Accessories:</b>            | Ex vibration sensor (AC90x or AC91x), coiled cable to connect vibration sensor, magnetic base for vibration sensor, headphones with 3.5 mm jack, special USB cable, measuring tip for manual pressure on the sensor, transport case, USB flash disc with the manual   |
| <b>II 2 G Ex ib IIC T4 Gb:</b> | II Non-mining<br>2 Zone 1<br>G Gas atmosphere<br>Ex ib Principle of protection:<br>Intrinsic Safety EN 60079-11, Zone 1<br>IIC Gas group - Acetylene, Hydrogen<br>T4 Temperature class 135°C<br>Gb Equipment Protection Level – Zone 1 (high protection)  |

\*available in DDS software for Vibrio



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**Physical-Technical Testing Institute  
Ostrava - Radvanice**

(13)

**Schedule**

(14)

**Supplementary EU - Type Examination Certificate No. 2  
to FTZÚ 14 ATEX 0130X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Prolongation of certificate validity;
- Evaluation of product according actual valid standards;
- Modification of product.

The subject of this supplementary EU - Type Certificate is evaluation of product and alternative type of input connector. The cable COMM CABLE is used for connection of product outside Ex area. The product was evaluated according actual valid standards. The technical parameters of product remain unchanged. The actualized documents are listed in clause (19) of this supplement. The validity of certificate was prolonged for next five years.

Technical parameters: Remain unchanged

(16) Report Number.: 14/0130/2

(17) Specific Conditions of Use:

1. In equipment can be used only cells Energizer L91.
2. The Connection of product with other equipment's outside the Ex area can be realized only by cable COMM CABLE from manufacturer ADASH spol. s r.o.

(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (10) of this supplementary certificate.

(19) Drawings and Documents:

| Number     | Sheets | Issue | Date       | Description                        |
|------------|--------|-------|------------|------------------------------------|
| -          | 16     | 1.2   | 27.03.2020 | Extension of technical description |
| 27032020MK | 55     | 1.2   | 27.03.2020 | User's manual                      |

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 03.04.2020

Page: 2/2

This certificate is granted subject to the general conditions of the FTZÚ, s.p.  
This certificate may only be reproduced in its entirety and without any change, schedule included.  
Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic  
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz



Physical-Technical Testing Institute  
Ostrava - Radvanice



(1) **Supplementary EU - Type Examination Certificate No.2**

(2) **Equipment or Protective Systems Intended for Use  
in Potentially Explosive Atmospheres  
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

**FTZÚ 14 ATEX 0130X**

(4) Product: **Handheld vibration analyser A4900 Vibrio Ex**

(5) Manufacturer: **ADASH spol. s r.o.**

(6) Address: **Hlubinská 32/1379, 702 00 Ostrava, Czech Republic**

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 14 ATEX 0130X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.


(8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, certifies that this product, as modified by this supplementary certificate, has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

(9) In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20.04.2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20.04.2016.

(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018, EN 60079-11:2012**

(11) The marking of the product shall include the following:

 **II 2G Ex ib IIC T4 Gb**

(12) This certificate is valid till: **30.04.2025**

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 03.04.2020

Page: 1/2

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Physical-Technical Testing Institute, s.p., Pítkartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic  
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz

|              |  |
|--------------|--|
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