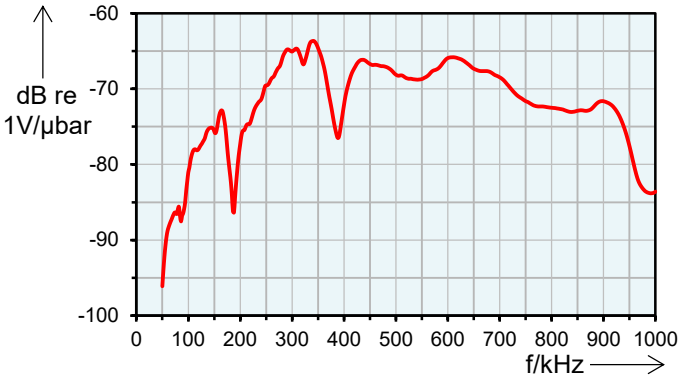
AE–Sensor Data Sheet

VS900-M

The VS900-M is a passive piezoelectric AE-sensor that has a broad frequency response. Its response is characterized by two peaks at 190 kHz and 350 kHz with accompanying anti-resonances at 200 kHz and 400 kHz. Benefits of the VS900-M are a high sensitivity over a broad frequency range with compromises regarding the flatness of response. It combines a good response in the standard frequency - and high frequency range.



Technical Specification

Frequency Range (f_{Peak}) [kHz]	100 to 900 (350)	**Size (D x H) [mm]**	20.3 x 14.3
Capacity [pF]	540	**Weight [g]**	22
Integrated Preamplifier	No	**Case Material**	Stainl. Steel (1.4571/ 1.4404)
Operating Temperature [°C]	-50 to +150	**Wear Plate**	Ceramics
Vibration – Sinus sweep	2 Oct/Min, 5 to 180 Hz, 40 g	**Connector**	Microdot
Ingress Protection Rating	IP40	**Shield Cross-Talk [dB]**	< -80

Standards and Directives		Certifications
EMC Directive	2014/30/EU	CE UKCA
EMC Standards	EN61326-1, EN61326-2-3	
Shock and Vibration Stand.	EN60068-2-6	
AE Standard	EN13477-1, EN13477-2	

Accessories

Preamplifier	AEP5H, AEP5, AEP3N	**Sensor Cable**	CBL-1-1M2-V5 (Microdot - BNC), CBL-1-1M2-V63 (Microdot - SMA)
Mounting Holder	MAG4M		

Important instructions for your safety

The sensor was produced according to the state of technology and tested against highest quality standards and technical safety requirements. A risk of malfunction remains which can lead to danger to life of operator, uninvolved third parties as well as damage of object under test or objects in its vicinity. Read the safety instructions carefully before using the AE-sensor.

Supplemental safety directives

1. Read the Acoustic Emission Sensors document (https://www.vallen.de/quote-ref)
2. Make sure that you comply to regulations at the AE-sensor installation site
3. Store these instructions

⚠ CAUTION	*CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.*

Damaging of AE-sensor

An AE-sensor can get damaged when it is not operated within specified limits or handled carelessly. The function of the AE-sensor may be compromised or it may even be inoperable although its appearance e.g. housing, connector or wear plate do not indicate any damage.

Risk:

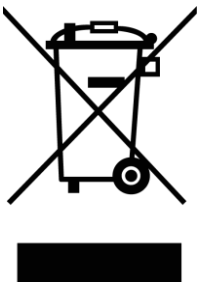
A damaged- or defective AE-sensor may not be able to detect potentially dangerous situations if it is used in a safety relevant inspection of e.g. pressure vessels or engineering structures such as bridges or dams.

How to avoid the risk of damaging an AE-sensor:

- Do not store, transport or operate the sensor outside its specified environmental conditions
- Do not drop the AE-sensor and handle it with care
- Transport AE-sensors only in the boxes provided by Vallen Systeme

How to avoid using a non-functional AE-sensor:

- Do not use an AE-sensor that is visibly damaged.
- Check the function and response of an AE-sensor prior to an inspection or AE-test by the use of controlled artificial sources
- Check the function and response of an AE-sensor in regular intervals or when suspected to be damaged or to have undergone severe environmental conditions



Redemption and Disposal Information of used Vallen Equipment.

- Equipment labelled with the symbol shown on the left must be disposed separately from unsorted municipal waste within the European Union.
- Owners of old instruments request our agreement to return old electronic equipment. The goods to be returned must be described unambiguously and identified by serial and/or identification number. You can fill in our contact form (*www.vallen.de/contact/*) or send us an email to sales@vallen.de.
- Upon our approval owners may ship the goods free of costs to us.
- We will dispose the goods according to the relevant laws and regulations on our costs.
- Goods returned without our approval will not be accepted and returned to the owner on his account.
- We explicitly point out that according to § 19a ElektroG3 you are responsible to delete any personal data on the appliances considered for disposal.

Disclaimer

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