ds Schallsensorik

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Product questionnaire about the acoustic sensor

Please fill in the questionnaire, as far as you can, and send it back to us.
We will get in touch with you immediately.

Tip: You can also fill out and send this interactive form directly on the screen.

Your data

Company

Contact person

Phone

Fax

E-Mail

1. Task

1.1 Please describe as precisely as possible which problem you perhaps want to solve by acoustic sensor technology!

1.2 Please describe the process briefly (eg. transport on tape and then ejection (falling) in boxes).

1.3 What distinction should be made?

- [ ] sorting of defective parts
- [ ] sorting of good parts
- [ ] other

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2. Sound source

2.1 Is the process the source of the sound?

☐ Yes ☐ No

2.2 Can / must the sound be purposefully generated?

☐ Yes ☐ No

2.3 Please describe as precisely as possible the point at which the sound is generated (mechanical process of the sound generation, materials, geometries, chronological sequence)!

2.4 Can you provide sketches, drawings, photos, videos, animations?

3. Characteristic of the acoustic event(s) requiring detection

3.1 Please try to describe the sound verbally (relative pitch, volume, comparison with commonly known sounds, experienced sound quality (ringing, scratching, scraping, grinding, hissing, whistling, clicking, knocking, snapping ...)

3.2 Is the sound continuous or intermittent? If intermittent, what is its duration and rate of repetition?

3.3 Is one sound involved or are there several ones to be detected?

3.4 Is it clearly possible to distinguish the various sounds (or the good/bad-sound) by ear?
Try to describe the difference in words.

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3.5 Is it possible to make a qualitative statement regarding the reproducibility of the sound(s)?

3.6 Which materials are involved?

☐ metallic items ☐ glass ☐ ceramic ☐ plastic materials ☐ other

4. Environmental conditions

4.1 What sort of secondary/external noises arise in addition to the sound that has to be detected?
What is the volume ratio experienced at the installation position of the sensor?

4.2 Are there any critical deployment conditions (operating temperature range, maximum humidity, splash water, dust particulates, aggressive media, mechanical stress ...)

4.3 Are there any pertinent industrial standards known?

4.4 Is a redesign of the processes (separation of parts, shielding against background noise) necessary for the sound detection?

☐ Yes ☐ No

4.5 Is a separation possible?
(Usually necessary, eg. for sorting and for unambiguous sound detection)

☐ Yes ☐ No

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5. Process access

5.1 Characteristic of power supply

Voltage level

Maximum current

Performance critical

☐ Yes ☐ No

5.2 How/by what should the sensor signal be processed?

☐ PC ☐ PLC control ☐ direct actor control ☐ data logger

☐ other:

5.3 Is a dynamic parameterization of the sensor necessary in the operation?

☐ Yes ☐ No ☐ unknown

5.4 Is a connection to a bus system desirable / required?

☐ Yes ☐ No ☐ unknown

5.5 Are there process signals available which permit a chronological assignment of the sound (which, for example, can be generated synchronously to the sound)?

☐ Yes ☐ No ☐ unknown

6. Project

6.1 Can sound samples be provided (eg as audio files)?

☐ Yes ☐ No ☐ unknown

If yes, please specify:

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6.2 Can the sound be generated under laboratory conditions?

☐ Yes ☐ No ☐ unknown

6.3 Can measurements be made on site?

☐ Yes ☐ No

6.4 Can good/bad sounds be purposefully generated in the laboratory or for on-site measurements?

☐ Yes ☐ No

6.5 Have initial studies relevant to acoustic sensorics already been made?

☐ Yes ☐ No

If yes, please specify:

Thank you very much for your support.

Print questionnaire

Alternatively, you can also save the questionnaire or print it out and then return it to the following address:

by e-mail to:
info@dsautomation.de

by mail to:
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Mettenheimerstraße 2
19061 Schwerin
GERMANY

or by fax to the following number:
+49 385-20840-10