



# Questionnaire

regarding the  
Acoustic Sensor

*Please answer as many questions as possible and return the questionnaire to us. We will contact you immediately.*

Company:

Person to contact:

Date:

## 1 Type of problem

1.1 Please describe briefly the problem which you would like to resolve using acoustic sensor technology!

## 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?

yes (please specify)

no

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

3.1 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 to be detected?

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

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

#### 4 Environmental conditions

4.1 What sort of secondary/external noises arise in addition to the sound 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 the pertinent industrial standards known?

yes (please specify)

no

unknown

#### 5 Process interface

5.1 Characteristic of power supply

Voltage level:

Maximum current:

Performance critical:  yes

no

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

PC

SPS

Direct actor control

Data logger

Other:

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

yes

no

unknown

5.4 Is an interface to a bus system desirable/necessary?

yes (please specify)

no

unknown

5.5 Are 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 made available (e.g. as audio files)?

yes (please specify)

no

unknown

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 (please specify)

no

unknown

6.6 Does this involve a serial application or an individual installation? What is the number of units planned?

Thank you for your support.

Please return the questionnaire to the following address:

**ds automation gmbh**  
**Mettenheimerstraße 02**  
**19061 Schwerin**

or fax us the questionnaire to the following number: Fax No.: 0385-20840-10

or e-mail us the questionnaire to:

[rpaesel@dsautomation.de](mailto:rpaesel@dsautomation.de)

