

Sounders 105 / 110 dB(A)

DS 5-SIL / DS 10-SIL



- integrated safety tough demands under industrial conditions
 - to signal dangerous situations in safety-relevant application such as process and plant safety, e.g.
 - leaks / gas warning
 - high-pressure / overfilling
 - and machine safety, e.g. as
 - start-up warning
 - excess rotation speed warning
 - machine stop delay warning
 - by means of integrated self-monitoring of the devices the normative required, regular inspection of warning devices is ensured
 - the warning devices can be implemented in Safety Instrumented Systems (SIS) up to **SIL 2/PLd**
- We would be more than happy to provide all safety-technical key data.

DS 5-SIL



max. covering distance

DS 10-SIL



max. covering distance



Protection system



Operating temperature

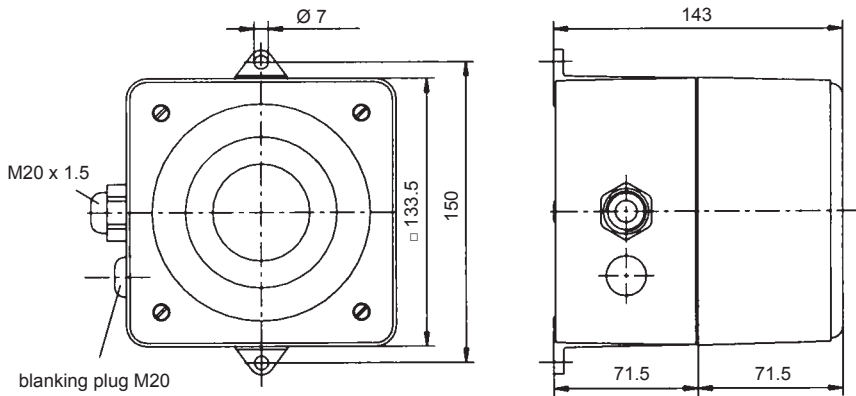


Acoustic penetration

| Electrical data | DS 5-SIL | | | DS 10-SIL | | |
|-----------------------------|---------------------|---------------|-----------|-------------|------------|-----------|
| Rated voltage | 230 V AC | 115 V AC | 24 V DC | 230 V AC | 115 V AC | 24 V DC |
| Rated frequency | 50 / 60 Hz | 50 / 60 Hz | | 50 / 60 Hz | 50 / 60 Hz | |
| Operating range | 195 – 253 V | 95 – 127 V | 19 – 29 V | 195 – 253 V | 95 – 127 V | 19 – 29 V |
| Nominal current consumption | 0.03 A | 0.06 A | 0.28 A | 0.06 A | 0.12 A | 0.42 A |
| Diagnostics channel | current consumption | 15 mA | 15 mA | 15 mA | 15 mA | 20 mA |
| | switching power | 230 V / 80 mA | | | | |

| Mechanical data | DS 5-SIL | DS 10-SIL |
|---|--|------------|
| Sound pressure level | 105 dB (A) | 110 dB (A) |
| Alarm tones | 32 (see tone table page 141) | |
| Operating temperature | - 25 °C ... + 55 °C | |
| Storage temperature | - 40 °C ... + 70 °C | |
| Relative humidity | 90% | |
| Protection system according to EN 60529 | IP 66, IP 67 | |
| Duty cycle | 100% | |
| Material | die-cast aluminium GD-AI Si12 Cu | |
| Surface coating | epoxy resin paint RAL 3000, flame red | |
| Cable bushing | 2 x M20 (1 x chrome-plated brass cable fitting, 1 x chrome-plated brass blanking plug) | |
| Clamping range of the cable fitting | 8 – 12 mm | |
| Connecting terminals | max. 2.5 mm ² | |
| Weight | AC | 2.15 kg |
| | DC | 1.95 kg |

Dimensions



Connection diagram

X1 Sounder channel

| | |
|---|-----------------------|
| 1 | PE |
| 2 | PE |
| 3 | L/+ Operating voltage |
| 4 | L/+ Operating voltage |
| 5 | N/- Operating voltage |
| 6 | N/- Operating voltage |

X2 optional external tone selection (option -TAS or -TAV)

| | |
|---|--------------|
| 1 | L/+ Stage S2 |
| 2 | L/+ Stage S2 |
| 3 | L/+ Stage S3 |
| 4 | L/+ Stage S3 |

X1 Monitoring channel

| | |
|---|--|
| 1 | L/+ Operating voltage |
| 2 | L/+ Operating voltage |
| 3 | N/- Operating voltage |
| 4 | N/- Operating voltage |
| 5 | Alarm relay (MOS-Relay 230V~, 80mA, 35Ω, |
| 6 | Alarm relay conductive, if function |
| 7 | Alarm relay channel is acoustically |
| 8 | Alarm relay active) |

Ordering details

| Article numbers | Rated voltage | DS 5-SIL | | | DS 10-SIL | | |
|--|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | 230 V AC | 115 V AC | 24 V DC | 230 V AC | 115 V AC | 24 V DC |
| Version | | 231 06 10 0 601 | 231 06 15 0 601 | 231 06 80 0 601 | 231 11 10 0 601 | 231 11 15 0 601 | 231 11 80 0 601 |
| Standard | | 231 06 10 0 601 | 231 06 15 0 601 | 231 06 80 0 601 | 231 11 10 0 601 | 231 11 15 0 601 | 231 11 80 0 601 |
| TAS (external tone selection via closed function of the control voltage) | | 231 06 10 0 603 | 231 06 15 0 603 | 231 06 80 0 603 | 231 11 10 0 603 | 231 11 15 0 603 | 231 11 80 0 603 |

Article numbers for other voltages and versions on request

Options / Accessories



External tone selection for controlling several tones over great distances



Conformity to standards

The sounders fulfill the requirements to the functional safety according to:

- EN 61508 Functional safety of electrical/electronic/programmable electronic safety-related systems
- EN 61511 Functional safety - Safety instrumented systems for the process industry sector

The devices can be used in safety related control systems in accordance with the following standards:

- EN ISO 13849-1 Safety of machinery - Safety related parts of control systems – part 1
- EN 62061 Safety of machinery - Functional safety of electrical/electronic/programmable electronic safety-related systems

The devices conform to the following standards:

- EN 61310-1 Safety of machinery - Indication, marking and actuation - part 1: Requirements for visual, acoustic and tactile signals
- EN ISO 7731 Ergonomic – alarms for public areas and workplaces – acoustic alarms
- EN 981 Safety of machinery - System of acoustic and visual alarm signals and information signals
- DIN 33404-1 Alarms for workplaces, uniform emergency signal
- ISO 8201 Acoustics - Audible emergency evacuation signal

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