

Product Group Level Crossings

Electronic bell type Sm@rt bell

Many level crossings are equipped with traditional electro-mechanic or electronic bells with one fixed bell volume. Unlike such traditional bells, the VRS Sm@rt bell adapts its sound pressure level to the volume of background noise at the moment of activation. Furthermore, the Sm@rt bell offers all other features of VRS' proven electronic EBA bell.

Your advantages:

Automatic volume adjustment

The bell meets the EN ISO 7731/2008 and is suitable for train, tram and bus crossings and bridge closing systems. VRS Railway Industry's new Sm@rt bell adapts its sound pressure level; at activation the Sm@rt bell measures the background noise and adapts its sound pressure level, within boundaries, to 23 dB(A) over the background noise. This feature offers big advantages: increased safety at crossings and less nuisance in densely populated urban areas at night.

Your familiar sound

It is extremely important that the bell sound is instantly recognized by road users. Therefore, many customers want to use the 'old' familiar sound again in a new bell. This is no problem; VRS can easily configure the bell with the sound required by you!

Suitable for each specific location

Each crossing has different characteristics such a traffic volume and composition, surrounding buildings, background noise etc. Other bells can sometimes be adjusted by means of dip switches etc. This process takes time and dip switches can lose their setting over time. The automatic adaptation of the Sm@rt bell to



the static and dynamic characteristics of each level crossing environment makes the Sm@rt bell instantly suitable for all locations without adaptation and fine-tuning!

Easy to install

The casing of the bell consists of cast aluminium. Therefore, the bell is suitable for all weather conditions, including a tropical climate. The Sm@rt bell has a wide variety of sleeves and mounting brackets for easy installation. A wide range of supply voltages makes the Sm@rt bell an excellent tool to enhance security at existing crossings. Virtually all types of crossings and barrier installations can be equipped with VRS' Sm@rt bell.

Reliable and proven

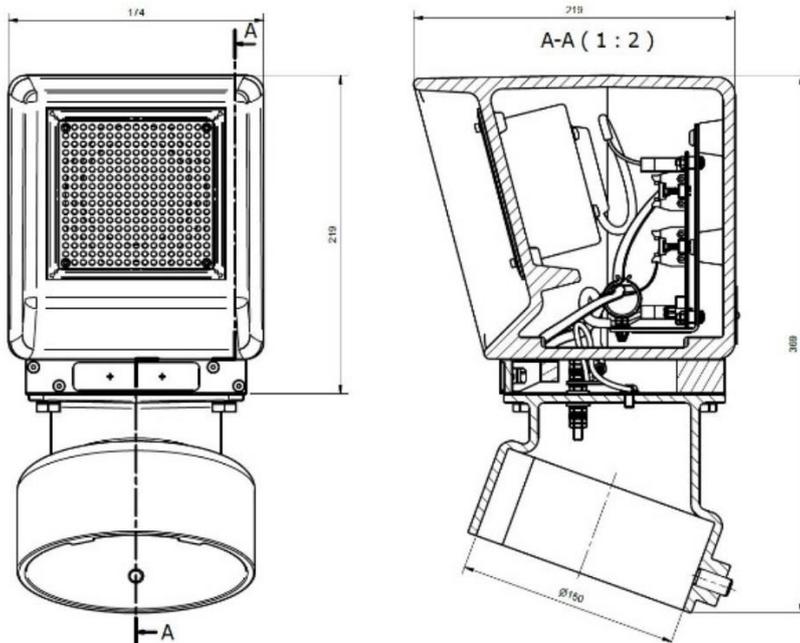
The Sm@rt bell is a further development of the well-known EBA electronic bell that is applied by many infrastructure companies all over the world. Over the past decades, more than 20,000 units have been supplied. It has been designed to operate in harsh railway and naval environments. The Sm@rt bell does not have any moving parts and is maintenance-free.



Technical specifications

| | |
|------------------------|--|
| Material casing | : aluminium (including sleeve) |
| Weight | : 6.4 kg (including sleeve) |
| Colour | : RAL 9005 (black) |
| Main dimensions (mm) | : 219 x 219 x 174 (excluding sleeve) |
| IP-protection | : IP 54 according to EN 60529 |
| IP-class loudspeaker | : IP 67 according to EN 60529 |
| Power supply | : 10 - 18 Vdc Other voltages can be supplied upon request |
| Power consumption: | : ≤ 10 VA |
| Voltage pulse check | : in accordance with EN 50121-4 class A |
| Insulation value | : 3 kV |
| Duty cycle | : infinite |
| Operating temperature | : -25 °C and +50 °C, in accordance with EN 60721-3-4 |
| Sound | : customized based on customers WAV-file (continuous loop) |
| Sound pressure level* | : nominally 23 dB(A) above the measured surrounding's level with a minimum of 75 dB(A) and a maximum level of 90 dB(A), both measured at 2 meter distance perpendicular from the centre of the speaker |
| Sound characteristics* | : 12 seconds after activation (when e.g. the barriers are closed), the sound pressure level is reduced by 5 dB(A), but never below the minimum level (variable setting) |

* : +/- 1.5 dB(A)



More information?

For more information about the products and services of VRS Railway Industry, please contact our sales department. Our people are happy to help! You can reach us every workday between 8 AM and 5.30 PM at: +31 30 694 3954.

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