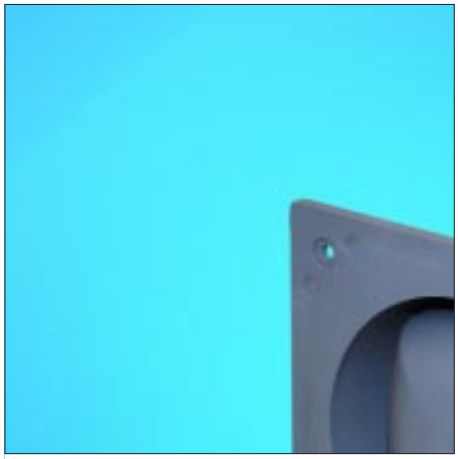
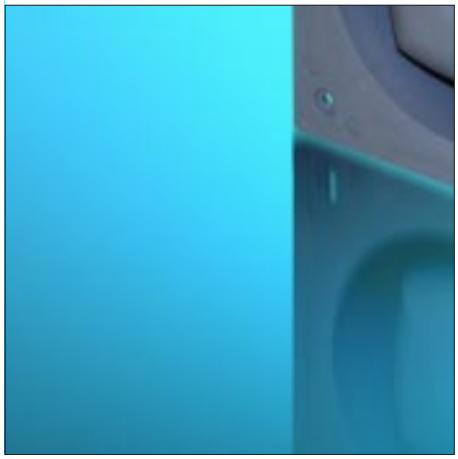
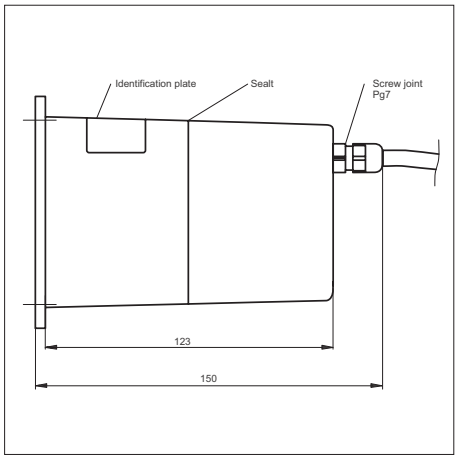
SCHALTBAU

Weatherproof Buzzer
JA 222 WD







F 209e

Weatherproof buzzer JA 222 WD for outdoor applications

The weatherproof buzzer JA 222 WD is used as warning device in railbound vehicles and offers the following special features:

- weatherproof housing for outdoor installation, protection degree IP 65.
- universal supply voltage range 16,8..150 V, DC or AC voltage, independent on polarity.
- 4 volume settings
- constant volume, temperature-independent
- 4 pitches, adjustable inside and outside.

The device comes complete with a 10-pole cable; together with a conductor system it allows the pitch to be adjusted from the outside. A potential-separated “buzzer ok” signal is available as relay output.

The weatherproof buzzer meets all requirements to protection degree IP 65.

Electrical Interface

Designation	Colour	Internal terminal
Supply voltage 1	red	ST2-1
Supply voltage 2	blue	ST2-2
Ground wire / Cable screen	cable mesh	ST2-3
External frequency 340 Hz	withe	ST2-4
External frequency 400 Hz	vellow	ST2-5
External frequency 550 Hz	rose	ST2-6
External frequency 900 Hz	violet	ST2-7
External return frequency	brown	ST2-8
Relay output 1, buzzer = ok	grey	ST2-9
Relay output 2, buzzer = ok	black	ST2-10

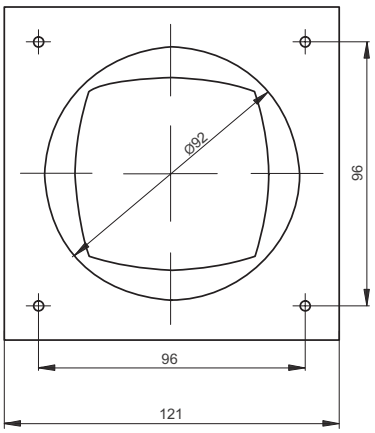
Cable, length: 1.0 meter

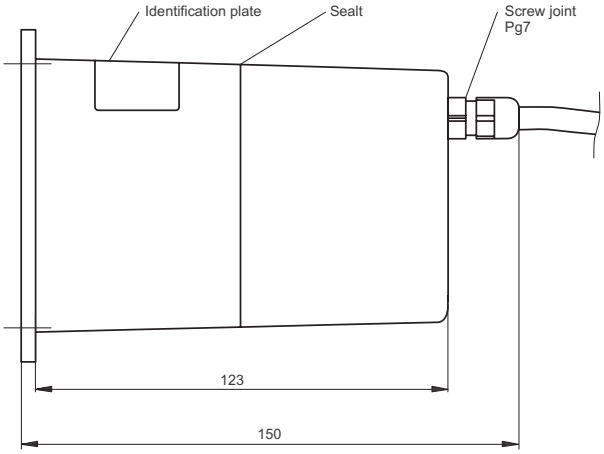
Technical Data

Electrical Data:				
	Rated operating voltage	U_n	=	24 V≅ .. 120 V≅, unipolar
	min. operating voltage	U_{min}	=	16,8 V≅
	max. operating voltage	U_{max}	=	150,0 V≅
	Rated operating current	I_n	=	60 mA
Pitch:				
	Ext. frequency S1-1			
	Frequency 1* S1-2	f_1	=	340 Hz
	Frequency 2 S1-3	f_2	=	400 Hz
	Frequency 3 S1-4	f_3	=	550 Hz
	Frequency 4 S1-5	f_4	=	900 Hz
Sound Level:				
	Volume 1* S1-6	L_1	=	86 dB(A) ± 10 %
	Volume 2 S1-7	L_2	=	94 dB(A) ± 10 %
	Volume 3 S1-8	L_3	=	102 dB(A) ± 10 %
	Volume 4 S1-9	L_4	=	110 dB(A) ± 10 %
Further Data:				
	Dimensions (L x H x W)	121 mm x 121 mm x 150 mm		
	Sound opening	Ø 92.0 mm		
	Weight	1.5 kg		
	Material	Polyamide (PA)		
	Colour	grey		
	Installation	Preferably in vertical position although water will flow off in any position		
	Protection degree	IP 65		
	Temperature range	-25°C ... +70°C		
Approval:				
	Approved by German Railways since May 1997			
Ordering Information:				
	JA222 WD	P/N 1-1726-830 709		

* Preset

Device Outline





Dimensions in mm

Configuration

The electronic buzzer is provided with the following adjustments:

- Sound level: L_4 = 110 dB(A)
- Frequency: f_{intern} = 340 Hz

Changing the adjustment:

- Remove screws and cover.

- **Sound level adjustment:**
  Adjust sound level by help switches S1-6 to S1-9.

Switch S1-	1	2	3	4	5	6	7	8	9
L_1 = 86 dB(A)	see internal frequency adjustment					●	○	○	○
L_2 = 94 dB(A)						○	●	○	○
L_3 = 102 dB(A)						○	○	●	○
L_4 = 110 dB(A)						○	○	○	●*

● Switch ON ○ Switch OFF * Preset

- **Internal frequency adjustment:**
  Pitch is adjusted by switches S1-1 to S1-5.

Switch S1-	1	2	3	4	5	6	7	8	9
f_{intern} = 340 Hz	○	●*	○	○	○	see sound level adjustment			
f_{intern} = 400 Hz	○	○	●	○	○				
f_{intern} = 550 Hz	○	○	○	●	○				
f_{intern} = 900 Hz	○	○	○	○	●				

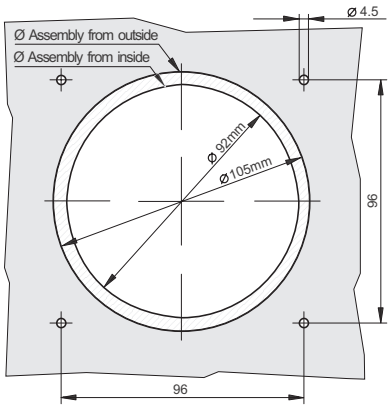
● Switch ON ○ Switch OFF * Preset

- **External frequency adjustment:**
  By setting switch S1-1 and applying a control voltage U_{st}=+24 V to one of the four control cables (ST2-4 to ST2-7), the frequency can be adjusted externally. Control cable ST2-8 serves as common return (reference voltage level).

Switch S1-	1	2	3	4	5	6	7	8	9
$f_{ext.,ST2-4}$= 340Hz	●	○	○	○	○	see sound level adjustment			
$f_{ext.,ST2-5}$= 400Hz	●	○	○	○	○				
$f_{ext.,ST2-6}$= 550Hz	●	○	○	○	○				
$f_{ext.,ST2-7}$= 900Hz	●	○	○	○	○				

● Switch ON ○ Switch OFF

Mechanical Assembly



Assembly:
Assembly is done by four M4 screws.

Assembly from outside:
The diameter for the housing cut-out is 105 mm.

Assembly from inside:
The diameter for the housing cut-out is 92 mm (as for sound opening).

Application: Operative range in driver´s cabs

Electrical Components and Systems for Railway and Industrial Applications

Connectors	• Industry-standard connectors • Special connectors for communication technology (MIL-connectors) • Connectors for railway technology including UIC connectors • Special connectors per customer requirements
Switchgear	• Single and multipole DC contactors • High-voltage AC/DC contactors • Contactors for battery powered vehicles and power supplies • Contactors for railway applications • Special devices per customer requirements
Switching Elements	• Snap-action switches with direct opening action • Snap-action switches with self-cleaning contacts • Switching elements with high breaking capacity • Control and safety switches • DC emergency break switches • Special switches per customer requirements
Control and Signal Devices	• Master controllers and reversers for railway applications • Toggle switches • Hand-operated and foot switches for railway applications (Dead Man´s Device) • Emergency brake handle
Systems and Components for Railway Technology	• Power supply plants for passenger coaches • Battery chargers for locomotives and restaurant cars • High-voltage equipment for single and multi-voltage operation • Heaters • Projecting performance for passenger coaches • Projecting performance for diesel MUs • Electrical drives with magnetic drive technology • Special devices per customer requirements

SCHALTBAU AKTIENGESELLSCHAFT
Klausenburger Straße 6
D-81677 München
Germany

Telephone +49 89 93005-0
FAX +49 89 93005-350
e-Mail schaltbau@schaltbau.de

F1668/9909/1.0 Printed in the Federal Republic of Germany by Schaltbau

Issued September 1999