



■ Transportation Solutions

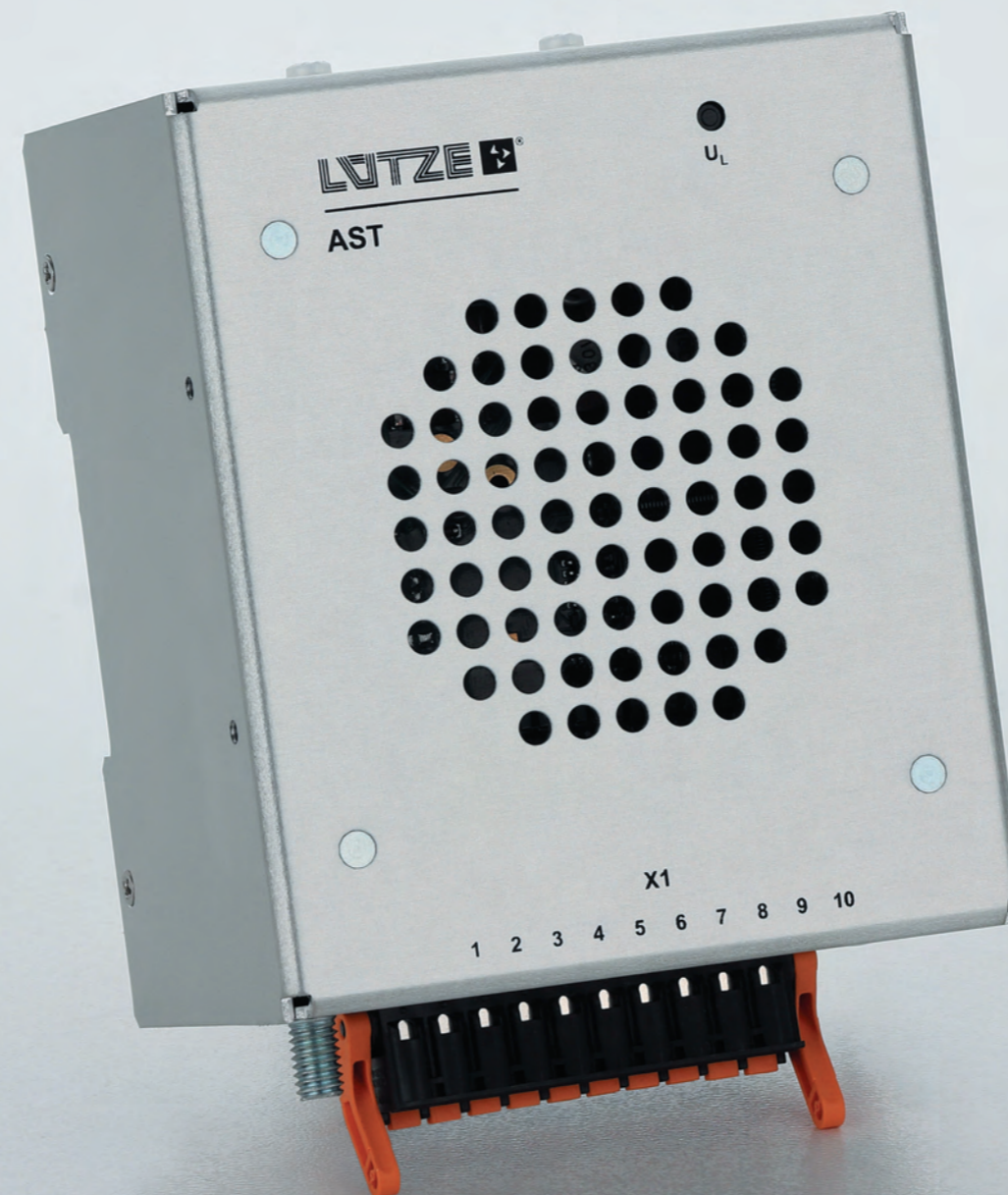
Audio signal transducer Piezo signal transducer

Let's Talk about it! - Audio signal transducer with external programming tool

Plays voice messages and songs

Support of .wav and .mp3 formats

Wide-range supply
DC 24 V bis 110 V

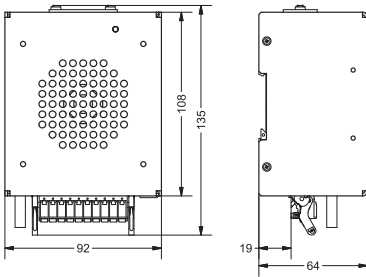


6 digital inputs

Various versions
for wall mounting and with
external loudspeaker

Configuration tool
for creating MEM files and
programming the signal transducers

Programmable Audio Signal Transducers



Part-No.	826016.00
Type	AST-6016.00 DC 24-110V
Description	Freely programmable Audio Signal Transducer for rail applications to play MP3 and WAV files. The Audio Signal Transducer has an status output for signalling the readiness for operation (max 50 mA).
Mounting	DIN rail mounting / Rear wall mounting *)
Operating System	3.x

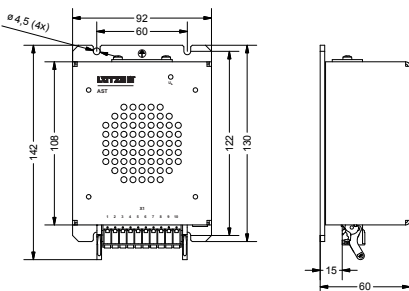
Technical data	
Nominal voltage	DC 24 – 110 V
Sound pressure	104 dB @ 2 kHz at 1 m
Max. audio duration	15 min. at mp3 (16 kbit/s)
Volume control	Can be configured or set via potentiometer
Boot-up time	< 200 ms
Status indication LED	LED UL – green – Power Supply OK

Status output	
Indication	"Device operates faultlessly" max. 50 mA

Inputs	
No. of inputs	Max. 6
Switching threshold	Configurable
Entprellzeit	Configurable

General	
Connection type	Push-In 10-pole
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Protection class	IP20
Weight	0.580 kg/piece

*) Mounting device Part-No. 826902 required



Part-No.	826017.00
Type	AST-6017.00 DC 24-110V
Description	Freely programmable Audio Signal Transducer for rail applications to play MP3 and WAV files. The Audio Signal Transducer has a status output for signalling the readiness for operation (max 50 mA).
Mounting	Wall mounting
Operating System	3.x

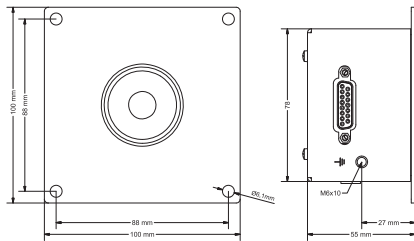
Technical data	
Nominal voltage	DC 24 – 110 V
Sound pressure	104 dB @ 2 kHz at 1 m
Max. audio duration	15 min. at mp3 (16 kbit/s)
Volume control	Can be configured or set via potentiometer
Boot-up time	< 200 ms
Status indication LED	LED UL – green – Power Supply OK

Status output	
Indication	"Device operates faultlessly" max. 50 mA

Inputs	
No. of inputs	Max. 6
Switching threshold	Configurable
Debouncing time	Configurable

General	
Connection type	Push-In 10-pole
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Protection class	IP20
Weight	0.585 kg/piece

Programmable Audio Signal Transducers



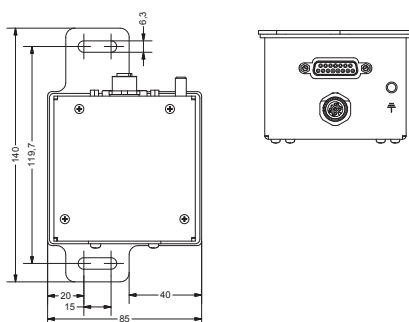
Part-No.	826018.00
Type	AST-6018.00
Description	Freely programmable Audio Signal Transducer for rail applications to play MP3 and WAV files. The Audio Signal Transducer has a status output for signalling the readiness for operation (max 50 mA).
Mounting	Rear wall mounting
Operating System	3.x

Technical data	
Nominal voltage	DC 24 – 36 V
Sound pressure	83 dB @ 2 kHz at 1 m
Max. audio duration	15 min. at mp3 (16 kbit/s)
Volume control	Can be configured or set via potentiometer
Boot-up time	< 200 ms

Status output	
Indication	"Device operates faultlessly" max. 50 mA

Inputs	
No. of inputs	Max. 6
Switching threshold	Configurable
Debouncing time	Configurable

General	
Connection type	15-pole D-SUB socket connector Fastening bolt UNC4/40
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Protection class	IP 65 in front area
Weight	0.280 kg/piece



Part-No.	826019.00
Type	AST-6019.00
Description	Freely programmable Audio Signal Transducer for rail applications to play MP3 and WAV files. The Audio Signal Transducer has a status output for signalling the readiness for operation (max 50mA). The sound reproduction is performed by using an external loudspeaker with an impedance of 8 Ohm (e.g. Part-No. 716368 or 826013)
Mounting	Wall mounting with external loudspeaker
Operating System	3.x

Technical data	
Nominal voltage	DC 24 – 110 V
Sound pressure	Volume depends on used loudspeaker
Max. audio duration	15 min. at mp3 (16 kbit/s)
Volume control	Configurable
Boot-up time	< 200 ms

Status output	
Indication	"Device operates faultlessly" max. 50 mA

Inputs	
No. of inputs	Max. 6
Switching threshold	Configurable
Debouncing time	Configurable

General	
Connection type	15-pole D-SUB male connector
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Protection class	IP20
Weight	0.245 kg/piece

Programmable Audio Signal Transducers



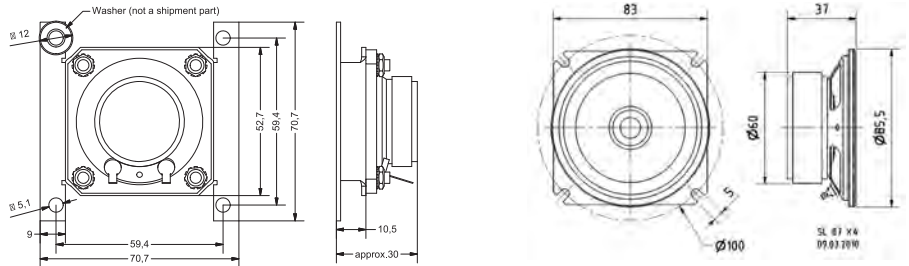
Part-No.	716368	826013
Type	LS-6368 8R IP65	LS-6013 8R IP65
Description	External Broadband loudspeaker for Audio signal transducer Part-No. 826019.00	External Broadband loudspeaker for Audio signal transducer Part-No. 826019.00
Mounting	Rear wall mounting	Rear wall mounting
Protection class	IP65 (membrane)	IP65 (membrane)

Technical data

Impedance	8 Ω	8 Ω
Line frequency	250 Hz to 10000 Hz	350 Hz to 5800 Hz
Sound pressure	83 dB at 1 W / 1 m	94 dB at 1 W / 1 m

General

Connection device	Tab 2,8 x 0,5 mm	Tab 2,8 x 0,5 mm
Operating temperature range	-40 °C – 70 °C	-40 °C – 70 °C
Weight	0.080 kg/piece	0.380 kg/piece



Part-No.	716322
Type	SUS-6322 DC 24-110 V
Description	Audio Signal Transducer for rail applications to play freely-programmable audio files.
Mounting	DIN rail mounting
Operating System	2.x

Technical data

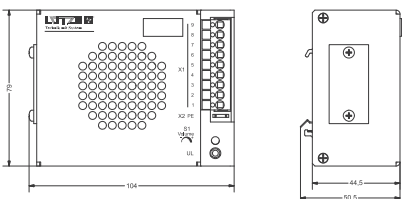
Nominal voltage	DC 24 – 110 V
Sound pressure	83 dB @ 2kHz at 1 m
Max. audio duration	4 min. at a sample rate of 8 kHz and 4 bit ADPC compression
Volume adjustment	Configurable in 8 steps or infinitely adjustable via
Boot-up time	< 8000 ms

Inputs

No. of inputs	Max. 6
Debouncing time	Configurable

General

Connection type	Spring terminal
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Protection class	IP20
Weight	0.280 kg/piece



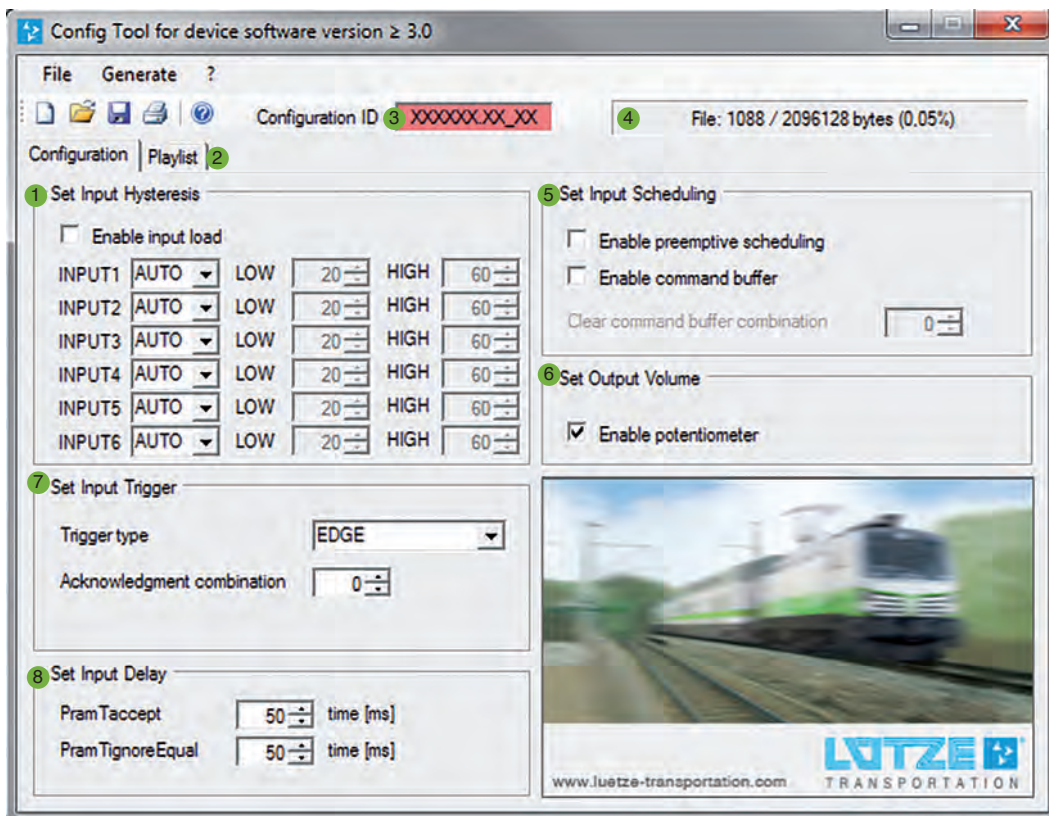
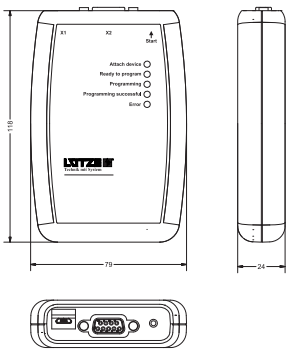
Configuration Audio signal transducer



Part-No.	826900
Type	PG-6900
Description	Programming of different Audio Signal Transducers with an individual MEM file, One-Button operation, Battery operated

Technical data	
Memory	Max. 8 Mbit ax. Audio duration: 4 minutes at a sample rate of 8 kHz and 4 Bit ADPC compression
System requirements	Windows XP / Windows 7 / Windows 10 NET-Framework 4.0 USB2.0

General	
Operating temperature range	-20 °C – 70 °C
Weight	0.110 kg/piece



- 1 **Set Input Hysteresis**
The values for the input hysteresis can be set manually and automatically.
- 2 **Playlist**
For adding the audio files and making further audio file specific adjustments. (Acknowledge, Loop, Volume and Input)
- 3 **Configuration ID**
Setting an ID for each configuration.
- 4 **MEM File Speicher**
Displays the available memory of the MEM file.
- 5 **Set Input Scheduling**
For setting the cancellation of messages by higher prior messages.
- 6 **Set Output Volume**
Aktivation/Deactivation of the potentiometer.
- 7 **Set Input Trigger**
Setting of the trigger parameters (rising edge, at a defined input combination or all signals).
- 8 **Set Input Delay**
Setting the debouncing time

With the help of the tool audio files can be added and configured. After the configuration is finished, it can be stored and down-loaded to the corresponding audio signal transducer.

Outer Warning - Powerful electronic sound generator

Sound pressure
up to 122 dB(A) @ 1 m

Protection degree IP66

4 digital inputs

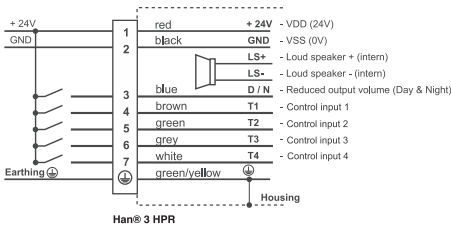
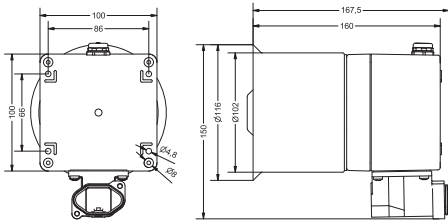


Up to 14 tones

Day & night reduction inputs

Supply voltage DC 24 V

Powerful Electronic Sound Generator



Part-No.	826026.xx (issued on a project-specific basis)
Description	Powerful electronic sound generator for rail applications. 90° Han® 3HPR connection and additional pressure compensation element. D/N adjustable via config in 64 steps. Approx. 1 dB per step. 14 tones in total.

Environmental service conditions	
Relative air humidity	<90 %
Degree of protection	IP66 (EN 60529)

Technical data	
Nominal voltage range	DC 14.4 V - 33.6 V
Rated voltage U_N	DC 24 V
Rated current (at U_N)	Max. 1.5 A @ DC 24 V
Stand-by current	12 mA @ DC 24 V (if input T1-T4 not active)
Sound pressure L_{pAeq}	Max. 122 dB(A) @ 1m
Volume control	Preconfigured + activated volume button (preset = MAX)
Technology	Electronic sound generator
Boot-up time	550 ms

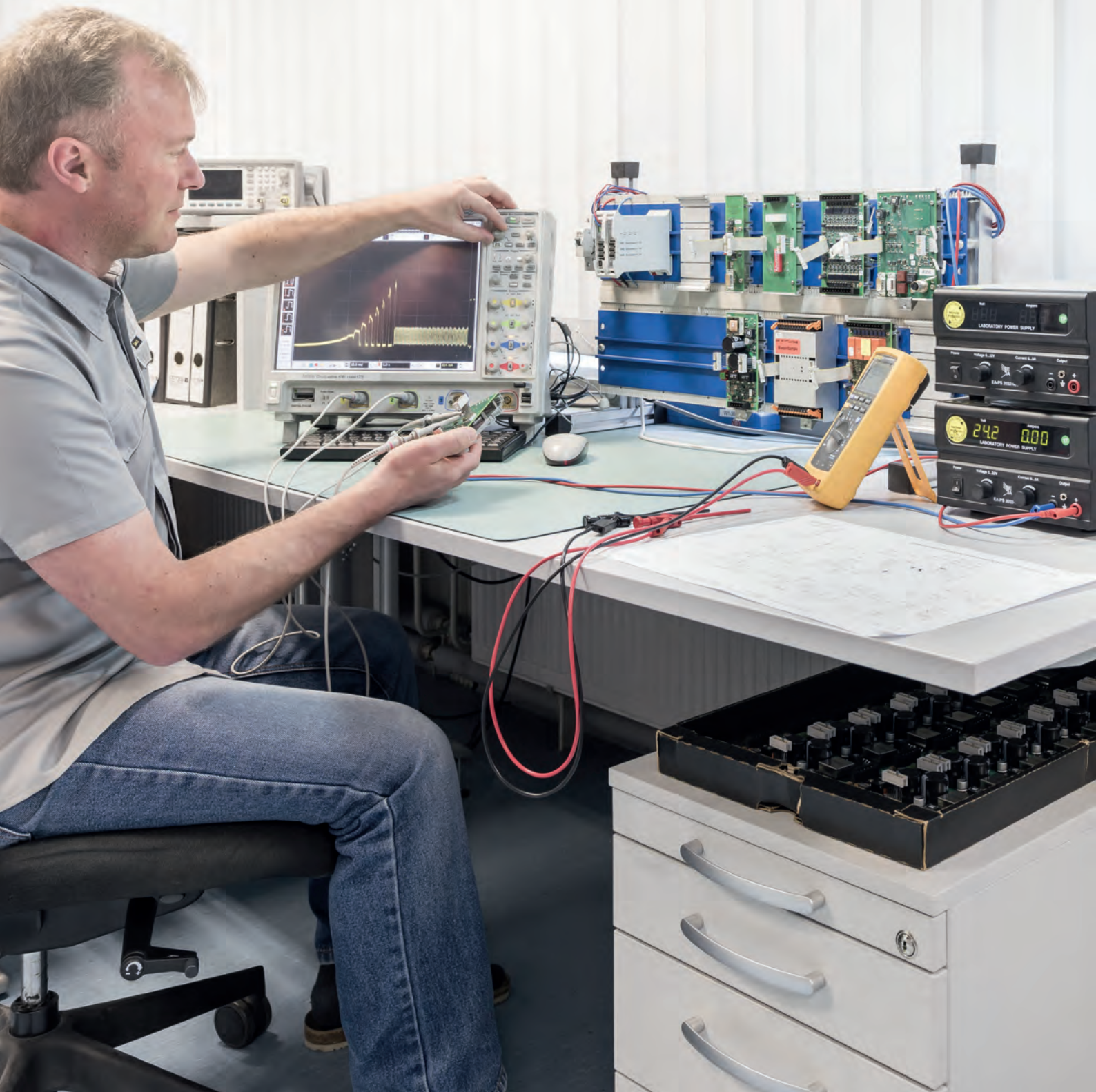
Inputs	
Number	4
Current Consumption	2.3 mA @ DC 24 V per input
Service interface	USB-A
Debounce time	240 ms
Switching Threshold	DC 0 ... 5 V - logic 0 DC 14.4...33.6 V - logic 1

General	
Dimensions (w x h x d)	100.0 mm x 100.0 mm x 160.6 mm
Housing material	Aluminum
Color of the housing	Grey RAL 7001
Loudspeaker material	Aluminium
Color of the loudspeaker	Grey RAL 7015
Mounting	Wall mounting Freely mountable
Status indication	LED green (open housing)
Operation temperature range	-40 °C... +80 °C
Storage temperature range	-40 °C ... +80 °C
Connection type	Harting Han® 3 HPR, angled with 7-pole pin-insert Han® Q 7/0-M

Railway Technology Competence

LÜTZE has been developing and manufacturing electrical components for rail vehicles for over 30 years. Our extensive product range of standard components carries out many automation tasks in the most diverse vehicle applications. Are you still looking for the appropriate product adapted to suit your specific application?

Get in touch with us. Our developers help you to find the best solution for your product, including the specification and design for the application on the vehicle, regardless of whether you need components for your control technology, interface components or optical and acoustic signals.



Customised warning tones - Piezo signal transducers programmable

Wide-range supply
DC 24 V to 110 V

3 different operating modes
Continuous operation, Interval operation,
Alternating operation

Easy configuration
with the "LÜTZE Piezo Configurator"

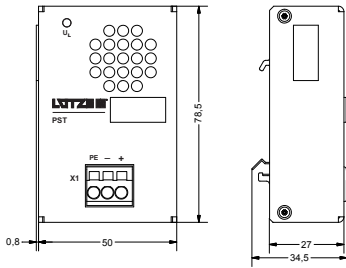


Different mounting options

Compact Form

LED status indication

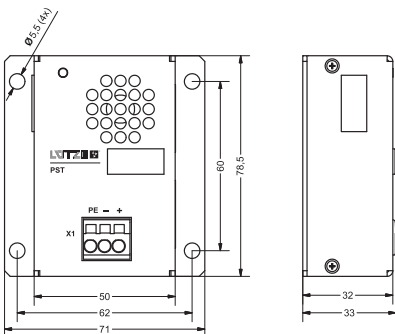
Programmable Piezo signal transducer



Part-No.	826020.00
Type	PST-6020.00 DC 24-110V
Description	The programmable Piezo signal transducer can be configured with the "Lütze Piezo Configurator" Tool. Different operating modes are available. Pulse and pause times, frequencies, as well as the volume can be configured.
Mounting	DIN rail mounting
Protection class	IP20

Technical data	
Nominal voltage	DC 24 – 110 V
Sound pressure	85 dB @ 2 kHz at 1 m
Volume control	Configurable
Boot-up time	< 50 ms
Status indication LED	LED UL – green – power supply OK

General	
Connection type	Spring terminal
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Weight	0.095 kg/piece



Part-No.	826021.00
Type	PST-6021.00 DC 24-110V
Description	The programmable Piezo signal transducer can be configured with the "Lütze Piezo Configurator" Tool. Different operating modes are available. Pulse and pause times, frequencies, as well as the volume can be configured.
Mounting	Wall mounting
Protection class	IP20

Technical data	
Nominal voltage	DC 24 – 110 V
Sound pressure	85 dB @ 2 kHz at 1 m
Volume control	Configurable
Boot-up time	< 50 ms
Status indication LED	LED UL – green – power supply OK

General	
Connection type	Spring terminal
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Weight	0.105 kg/piece

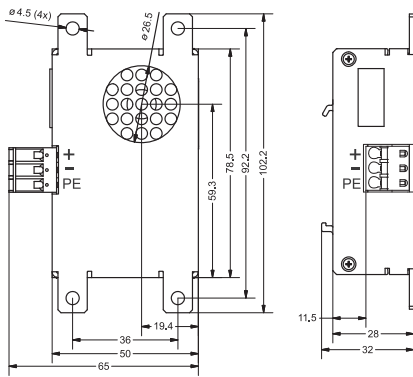
Programmable Piezo signal transducer



Part-No.	826022.00
Type	PST-6022.00 DC 24-110V
Description	The programmable Piezo signal transducer can be configured with the "Lütze Piezo Configurator" Tool. Different operating modes are available. Pulse and pause times, frequencies, as well as the volume can be configured.
Mounting	Rear wall mounting
Protection class	IP20

Technical data	
Nominal voltage	DC 24 – 110 V
Sound pressure	85 dB @ 2 kHz at 1 m
Volume control	Configurable
Boot-up time	< 50 ms

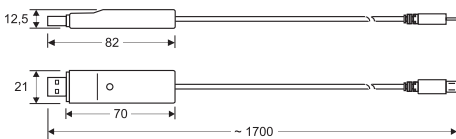
General	
Connection type	Push-In
Operating temperature range	-40 °C – 70 °C (+85 °C 10 min.)
Weight	0.100 kg/piece



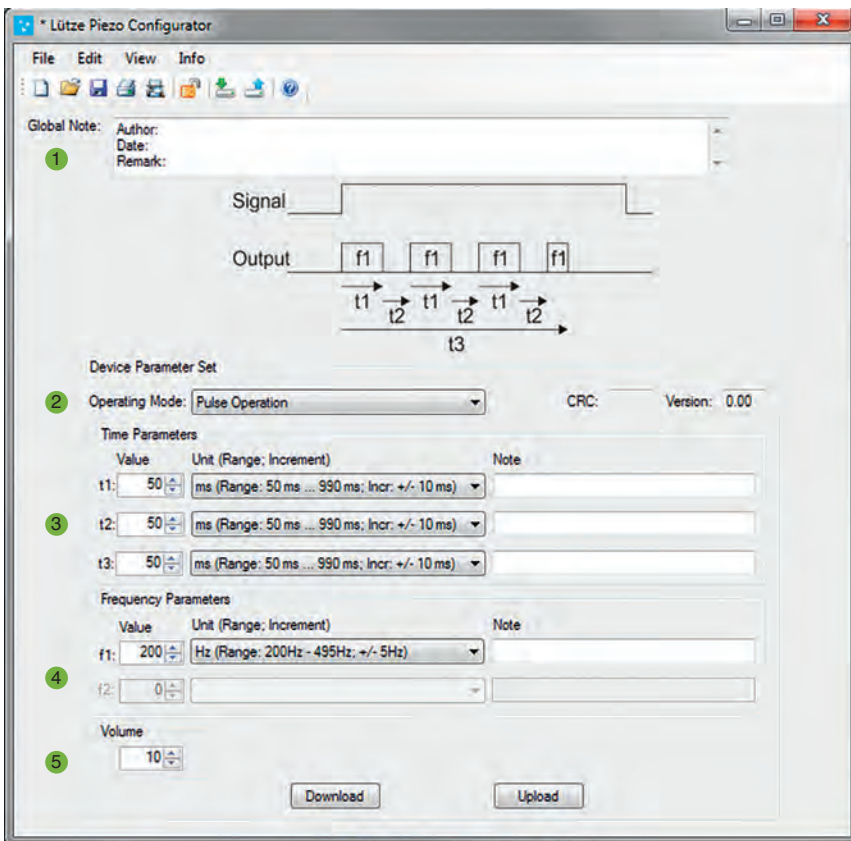
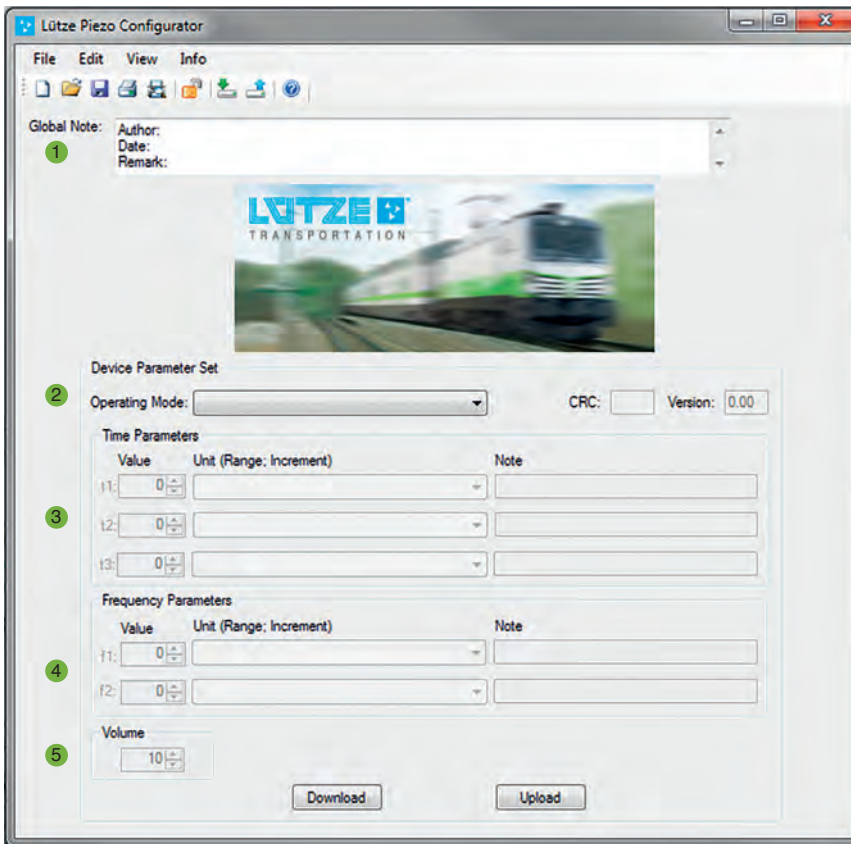
Part-No.	815900
Type	LCON ZB USB
Description	Interface cable for the parameterization of piezo signal transducer

Technical data	
Connection	USB-A - Micro USB

General	
Operating temperature range	0 °C – 40 °C

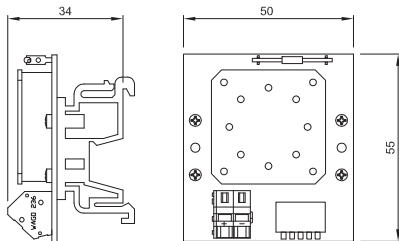


Configuration Piezo signal transducer



- 1 **Global Note**
Configuration meta data: Author, Date, Remark
- 2 **Operating Mode**
Setting of the operating mode
- 3 **Time Parameters**
Setting or adjusting the time parameters
- 4 **Frequency Parameters**
Setting or adjusting of the frequency parameters
- 5 **Volume**
Adjustment of volume

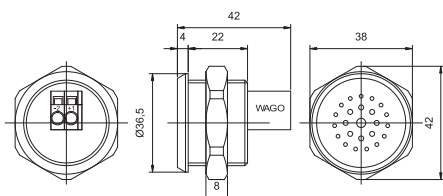
Piezo signal transducer



Part-No.	716149
Type	SUS-6149
Description	Buzzer module for rail applications. 16 different frequencies can be set with the aid of a DIP switch. The volume of the buzzer module can be reduced by an installed resistor.
Mounting	DIN rail mounting

Technical data	
Nominal voltage	DC 24 V
Sound pressure	92 dB @ 2500 Hz (in 30 cm distance, at 1 UN)
Nominal frequency	200 - 4000 Hz (adjustable via DIP switch)

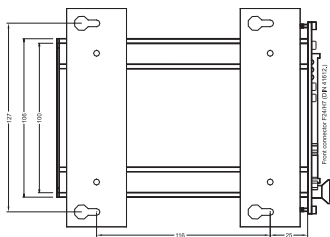
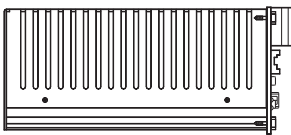
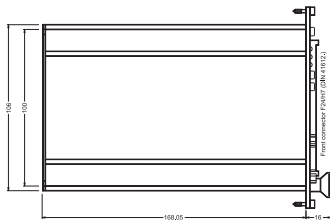
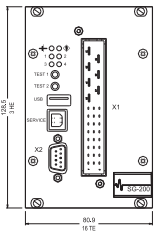
General	
Connection type	Spring terminal
Operating temperature range	-25 °C – 70 °C
Weight	0.030 kg/piece



Part-No.	716108
Type	SU-6108
Description	Buzzer for rail applications, equipped with a stainless-steel membrane for protection against corrosive influences.
Mounting	Single-hole mounting: 32 mm hole diameter

Technical data	
Nominal voltage	DC 110 V
Sound pressure	85 ± 3 dB
Nominal frequency	3000 ± 500 Hz, continuous-tone

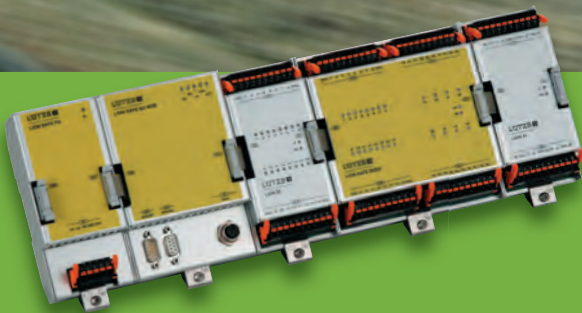
General	
Connection type	Spring terminal
Operating temperature range	-25 °C – 70 °C
Weight	0.030 kg/piece



Part. No.	82700 (plug-in) or 827001 (flange-mounting)
Description	Signal Generator – 200
Control inputs	
Rated voltage	DC 24 - 36 V
Voltage range	DC 16,8 - 45 V
Nominal current	5 mA
Number of control inputs:	8 opto-isolated bipolar inputs with common reference 4 opto-isolated bipolar inputs 3 opto-isolated bipolar inputs with common reference (If not configured as output)
Relay outputs	
Max- switching voltage	DC 45 V
Max. switching current	DC 0,5 A
Contact type	N.O.
Number of outputs	4 (If not configured as input)
Amplifier 1	
Type of amplifier	Class D
Protection device	Short-circuit and overload protection
Output-power	200 W
Frequency range	250 – 6.500 Hz / - 3 dB
Impedance	4 Ω optionally 8 Ω
Amplifier 2	
Type of amplifier	Class D
Protection	Short-circuit and overload protection
Output-power	25 W
Frequency range	50 – 15.000 Hz / - 3 dB
Impedance	4 Ω
General data	
Rated Voltage	DC 24 - 36 V (optionally DC 72 V or DC 110 V)
Voltage range	DC 16,8 V – 45 V
Current consumption at 24 V	Standby < 300mA Max. 12 A
Temperature range	-25°C to +70°C
Status indication	5 LED's green (power & status 1...4) 1 LED red (error)
Storage of MP3-files	SD-Flash card min. 1GB (optional 8GB)
Connection	Type F 24/H7 acc. to DIN 41612 SUB-D 9-pol. female (serial Interface) USB-A (configuration download) USB-B (configuration interface optional)
Dimensions	3HE / 16TE - 128,5 x 80,94 x 170 mm without handle and connectors

We are on Track!

Electronic control for rail vehicles



Control Technology



Interface



Indication



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