

**Horn Ex d and Ex de**  
Series 8493



www.stahl.de



- > 32 different signal sequences adjustable with internal DIP switches
- > Three different signal sequences can be selected through an external switch with a given DIP switch setting
- > Three PFEER signals
  - „General alarm“
  - „Toxic gas alarm“
  - „Prepare to abandon platform“
- > Volume control max. 117 dB(A)
- > Robust aluminium enclosure with horn in ABS
- > Synchronized tone sequence of parallel operated devices by quartz-controlled oscillator
- > Option: programmable module



02091E00

E5

	ATEX					
Zone	0	1	2	20	21	22
For use in		x	x			x

**Explosion Protection**

**Europe (ATEX)**

Gas

KEMA 02 ATEX 2150

8493/11-1.-.: II 2 G EEx d IIC T4  
8493/11-2.-.: II 2 G EEx de IIC T4

**Certifications and certificates**

Certificate

ATEX, Kazakhstan (operating authorisation), Korea (KCs), Russia (GOST R), Serbia (SRPS), Belarus (operating authorisation)

**WebCode 8493A**

# Horn Ex d and Ex de

## Series 8493



**Selection Table**

Version	Volume	Explosion group	Rated operational voltage	Order number	Weight kg
Ex d version	110 dB(A) / 1 m, adjustable	IIC	12 V DC ± 25 %	8493/11-11-1	3.420
			24 V DC ± 25 %	8493/11-11-2	3.420
			48 V DC ± 25 %	8493/11-11-3	3.420
			110 V AC	8493/11-11-4	3.420
			115 V AC	8493/11-11-5	3.420
			230 V AC	8493/11-11-6	4.680
	117 dB(A) / 1 m, adjustable	IIC	12 V DC ± 25 %	8493/11-12-1	3.880
			24 V DC ± 25 %	8493/11-12-2	3.880
			48 V DC ± 25 %	8493/11-12-3	3.880
			110 V AC	8493/11-12-4	3.880
			115 V AC	8493/11-12-5	3.880
			230 V AC	8493/11-12-6	3.880
Ex de version	110 dB(A) / 1 m, adjustable	IIC	12 V DC ± 25 %	8493/11-21-1	3.680
			24 V DC ± 25 %	8493/11-21-2	3.680
			48 V DC ± 25 %	8493/11-21-3	3.680
			110 V AC	8493/11-21-4	3.680
			115 V AC	8493/11-21-5	3.680
			230 V AC	8493/11-21-6	3.680
	117 dB(A) / 1 m, adjustable	IIC	12 V DC ± 25 %	8493/11-22-1	4.140
			24 V DC ± 25 %	8493/11-22-2	4.140
			48 V DC ± 25 %	8493/11-22-3	4.140
			110 V AC	8493/11-22-4	4.140
			115 V AC	8493/11-22-5	4.140
			230 V AC	8493/11-22-6	4.140
Please specify thread M20 or NPT 1/2"					
Note	A programmable announcement module can be supplied.				

# Horn Ex d and Ex de Series 8493



## Technical Data

### Electrical data

Rated operational voltage	DC	12 V ± 25 % 24 V ± 25 % 48 V ± 25 %	
	AC	110 V ± 10 % 230 V ± 10 %	
Rated operational current	<b>8493/11-1-.</b>	<b>8493/11-2-.</b>	
		12 V DC 195 mA 24 V DC 265 mA 48 V DC 130 mA 110 V AC 93 mA 230 V AC 56 mA	12 V DC 850 mA 24 V DC 800 mA 48 V DC 420 mA 110 V AC 200 mA 230 V AC 90 mA

### Acoustic data

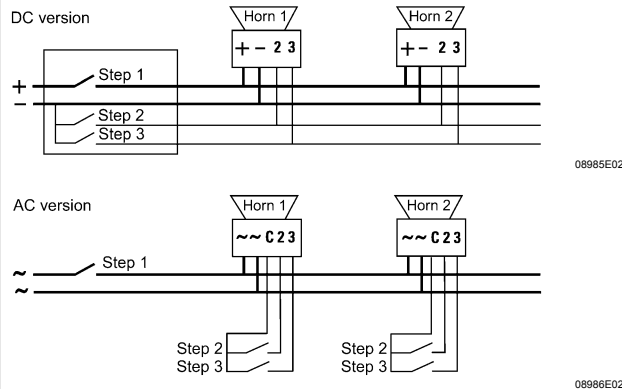
Volume	8493/11-1-. : 110 dB(A) / 1 m, adjustable 8493/11-2-. : 117 dB(A) / 1 m, adjustable
Tone sequences and combinations of tone sequences	see table "Adjustable tone sequences for horns" and "Possible combinations of tone sequences for horns"

### Ambient conditions

Ambient temperature	-50 ... +55 °C
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### Mechanical data

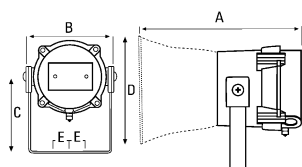
Degree of protection	IP66
Material	
Enclosure	Aluminium, red
Horn	ABS, red
Mounting bracket	Stainless steel
Connection type	Terminals for 0.5 ... 2.5 mm <sup>2</sup>



### Mounting / installation

Cable glands	2 drillings, M 20 or NPT 1/2" possible upon request
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### Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



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		A	B	C	D	E
8493/11-11-.	EEx d	282	165	145	181	30
8493/11-21-.	EEx de	275	165	145	181	30
8493/11-12-.	EEx d	313	165	145	220	30
8493/11-22-.	EEx de	326	165	145	220	30

E5

Horn Tone Sequence Selection Table

Type 8492 Type 8493				
Tone sequence				
Version	Frequency	Interval	PFEER signal	Tone no.
Continuous tone	440 Hz	continuous		tone 28
	544 Hz	continuous		tone 27
	660 Hz	continuous		tone 20
	800 Hz	continuous		tone 15
	1000 Hz	continuous	„Toxic Gas Alarm“	tone 01
	2400 Hz	continuous		tone 05
Changing tone	544 / 440 Hz	100 ms / 400 ms		tone 17
	544 / 440 Hz	1 Hz-Intervals		tone 21
	800 / 1000 Hz	0,875 Hz-Intervals		tone 12
	800 / 1000 Hz	0,25 s-Intervals		tone 02
	2400 / 2900 Hz	2 Hz-Intervals		tone 10
Slow whoop	500 / 1200 Hz	on: 0,3 Hz, break: 0,5 s		tone 03
Sweep	500 / 1200 Hz	on: 3,75 s, off: 0,25 s; 15 Intervals per min.		tone 32
	800 / 1000 Hz	1 Hz-Intervals		tone 04
	800 / 1000 Hz	7 Hz-Intervals		tone 29
	800 / 1000 Hz	50 Hz-Intervals		tone 24
	1200 / 500 Hz	1 Hz-Intervals (PAPA)	„Prepare to abandon platform“	tone 31
	1400 Hz up to 1600 Hz 1600 Hz up to 1400 Hz	in 1 s; in 0,5 s		tone 19
	2400 / 2900 Hz	1 Hz-Intervals		tone 07
	2400 / 2900 Hz	7 Hz-Intervals		tone 06
Siren	500 / 1200 / 500 Hz	0,3 Hz-Intervals		tone 08
		1 Hz-Intervals		tone 09
Saw tooth	1200 / 500 Hz	1 Hz-Intervals		tone 09
Interrupted	420 Hz	on: 0,625 s, off: 0,625 s	„Australian alert signal“	tone 30
	554 Hz	0,875 Hz-Intervals		tone 22
	660 Hz	on: 150 s, off: 150 s		tone 16
	660 Hz	on: 1,8 s, off: 1,8 s		tone 18
	800 Hz	on: 0,25 s, off: 1 s		tone 14
	1000 Hz	0,5 Hz-Intervals	„General Alarm“	tone 11
	2400 Hz	1 Hz-Intervals		tone 13
Pulsed	800 Hz	1 Hz-Intervals		tone 23
Pulsed bell (simulated)		continuous		tone 26

**Possible Sound Combinations for Horns**

Type 8492		Type 8493		Tone sequence combinations (set with DIP switches)		
<b>Explanation</b>				Step 1	Step 2	Step 3
The desired signal is set using DIP switches. 32 basic tones can be selected (table page) At a given DIP switch setting 3 tone sequences can be set which can be selected with an external switch. The tone combinations emitted simultaneously are listed in the next table.				tone 01	tone 31	tone 11
Example:           Horn 8493/11-11-230 V AC				tone 02	tone 17	tone 05
Setting:           Basic tone       Step 1           Tone 11 („General Alarm“)				tone 03	tone 02	tone 05
Optional tones   Step 2           Tone 31				tone 04	tone 06	tone 05
Step 3           Tone 01				tone 05	tone 03	tone 27
				tone 06	tone 07	tone 05
				tone 07	tone 10	tone 05
				tone 08	tone 02	tone 05
				tone 09	tone 15	tone 02
				tone 10	tone 07	tone 05
				tone 11	tone 31	tone 01
				tone 12	tone 04	tone 05
				tone 13	tone 15	tone 05
				tone 14	tone 04	tone 05
				tone 15	tone 02	tone 05
				tone 16	tone 18	tone 05
				tone 17	tone 02	tone 27
				tone 18	tone 02	tone 05
				tone 19	tone 02	tone 05
				tone 20	tone 02	tone 05
				tone 21	tone 02	tone 05
				tone 22	tone 02	tone 05
				tone 23	tone 06	tone 05
				tone 24	tone 29	tone 05
				tone 25	tone 29	tone 05
				tone 26	tone 02	tone 01
				tone 27	tone 26	tone 05
				tone 28	tone 02	tone 05
				tone 29	tone 07	tone 05
				tone 30	tone 32	tone 05
				tone 31	tone 11	tone 01
				tone 32	tone 26	tone 01

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.