

Combinations Multi Tone Alarm Sounders „A“ – Beacons „Q“

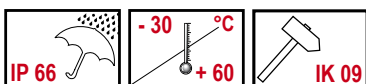
	Size 1	Size 2	Size 3	Size 4	
	 103 dB	 108 dB	 120 dB	 127 dB	
	8 tones	32 tones	32 tones	63 tones	
Multi Tone Sounder	ASS-P+QDS	ASS-T+QDS	ASM+QDM	ASL+QDL	ASX+QDX
+ LED Steady/ Flashing Beacon	 10 Cd	 10 Cd	 120 Cd	 170 Cd	 300 Cd
Multi Tone Sounder	ASS-P+QFS	ASS-T+QFS	ASM+QFM	ASL+QBL	ASX+QBX
+ Xenon Strobe Beacon	 ~5 J	 ~5 J	 ~10 J	 250 Cd	 400 Cd

Features






































- Comprehensive range of standard and high output alarm sounders in combination with cubic design beacons in LED or xenon technique
- 3 stage alarm/tones externally switchable (ASS-T, ASM, ASL, ASX)
- For applications in the industry, process control, fire/gas alarm, marine, etc.
- Versatile installation and mounting options
- Tone table includes international and standardized signal tones for fire/gas alarm and other applications
- Sound and light separately switchable
- Beacon options**
 - In most up-to-date LED technique**
long lifetime, low nominal current, vibrationproof
 - LED steady/flashing beacons (size 1-4)
 - LED multi strobe beacons (size 3-4)
 - In conventional xenon technique**
classic signalling with good signalling effect
 - xenon strobe beacons with 5 and 10 J strobe energy (size 1-2)
- Optional/customized tones/tone tables upon request
- Automatic synchronization in multi sounder installations
- Fit for plc applications (leakage, inrush current)

Accessories / Installation Options:

- Lateral cable entry** on both sides with **cable gland** (accessory type AKV)
- Grommet from back side** (included as standard)
- Metal bracket kit** for mounting of alarm sounders or beacons in specific direction, on mounting platforms, devices, etc. (accessory type AB1-AB4)
- Electrical connection via cage clamp**
- Tone selection via DIP switch**
- Volume control by potentiometer** (ASS-P, ASS-T, ASM, ASL)
- Flat gaskets** for correct IP66 installation on smooth surfaces of the housing (accessory type AG1-AG4)
- Mounting kit AMK** for mounting/combination of 2 or more same size sounders or beacons

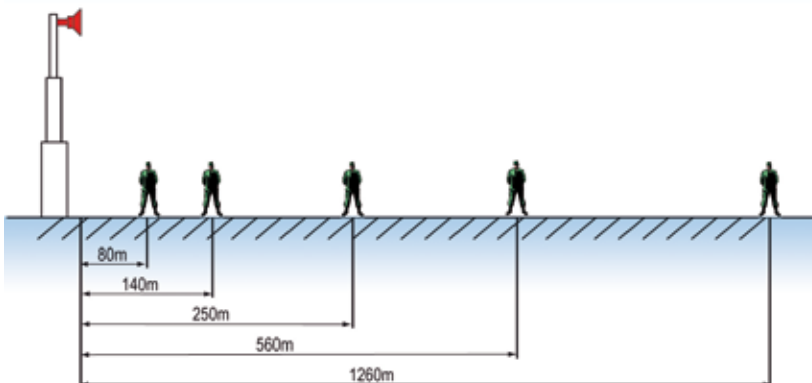


Overview Multi Tone Alarm Sounders „A“ / Beacons „Q“

Size	Multi Tone Alarm Sounders „A“	Multi Tone Alarm Sounders „A“ - Beacon „Q“	Multi Tone Alarm Sounder „A“ with Light Indicator	Beacons „Q“ with Buzzer Indicator	Beacons „Q“
1	ASS-P max. 103 dB  ASS-T max. 108 dB 	ASS-P + QDS LED Steady/Flashing ASS-P + QFS ~5 J Xenon Strobe  ASS-T + QDS LED Steady/Flashing ASS-T + QFS ~5 J Xenon Strobe 	ADS-P LED Steady  ADS-T LED Steady/Flashing 	QSS LED Steady/Flashing  QTS ~5 J Xenon Strobe 	QDS LED Steady/Flashing  QFS ~5 J Xenon Strobe 
2	ASM max. 113 dB 	ASM + QDM LED Steady/Flashing  ASM + QFM ~10 J Xenon Strobe 	ADM LED Steady/Flashing  ACM LED Strobe 	QSM LED Steady/Flashing  QTM ~10 J Xenon Strobe 	QDM LED Steady/Flashing  QFM ~10 J Xenon Strobe 
3	ASL max. 120 dB 	ASL + QDL LED Steady/Flashing  ASL + QBL LED Multi Strobe 	ADL LED Steady/Flashing  ACL LED Strobe 	QSL LED Steady/Flashing  QCL LED Multi Strobe 	QDL LED Steady/Flashing  QBL LED Multi Strobe 
4	ASX max. 127 dB 	ASX + QDX LED Steady/Flashing  ASX + QBX LED Multi Strobe 	ADX LED Steady/Flashing  ACX LED Strobe 	QSX LED Steady/Flashing  QCX LED Multi Strobe 	QDX LED Steady/Flashing  QBX LED Multi Strobe 



Signal Recognition



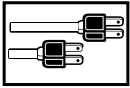
Sounder Type	Max. sound pressure level dB (A) in 1 m	Effective range of signal recognition (min. 65 dB) in m	Approx. area of signal recognition (min. 65 dB) in m ²
ASS-P	103	80	20.000
ASS-T	108	140	62.000
ASM	113	250	200.000
ASL	120	560	1.000.000
ASX	127	1.260	5.000.000

The sound pressure decreases depending on the distance between sounder and hearer (see also table „reduction of sound pressure over distance“ in the AUER catalogue).

The illustration shows the maximum distance at which a minimum sound pressure of 65 dB is achieved.

Assumptions here are ideal environmental conditions (wind, rain, humidity, fog, etc.) as well as type and frequency of the tone used. The directive efficiency of the sounder increases with an increasing tone frequency.

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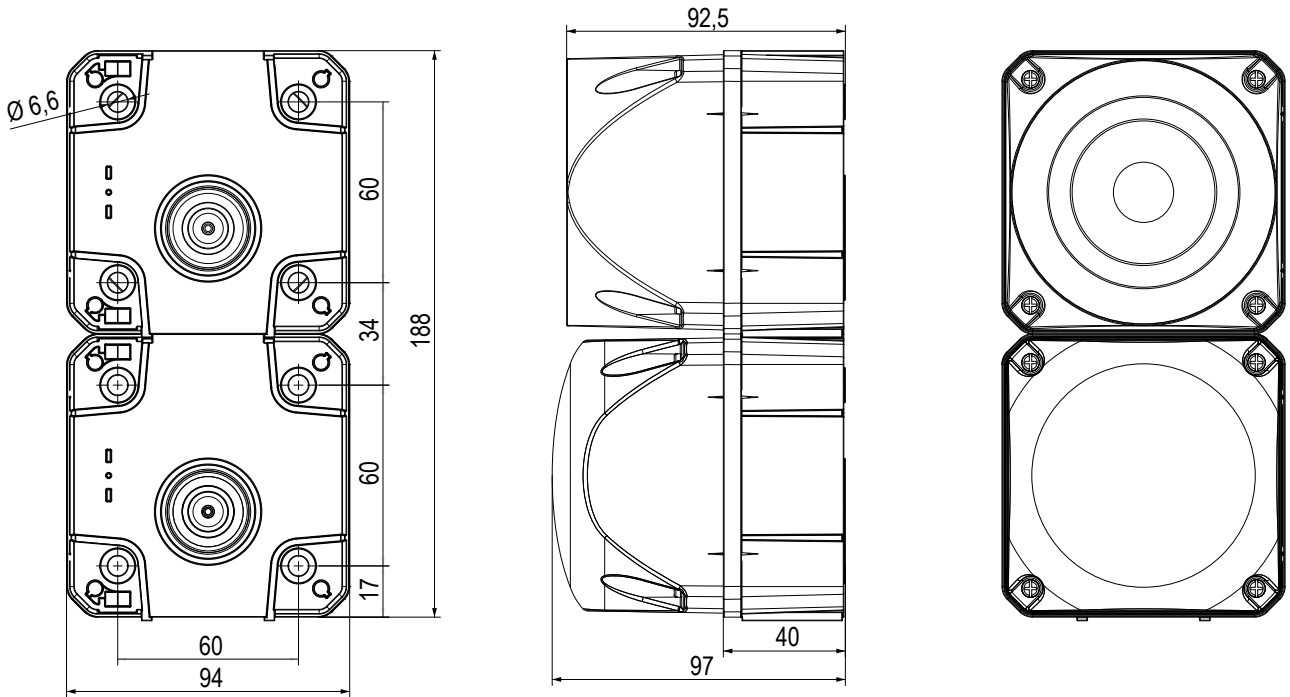
Technical data

Type	ASS-P Size 1	ASS-T Size 1	ASM Size 2	ASL Size 3	ASX Size 4
Housing	polycarbonate				
Housing colour	red RAL 3000				
Mounting	sound outlet horizontal or downwards				
Terminals	up to 2,5 mm ²				
Temperature range	-30 °C to +60 °C				
Cable entry	grommet from back, 5-10 mm cable gland M20x1,5 from side, 7-14 mm (accessory)				
Duty cycle factor	100%				
Tone selection	by DIP switch				
Number of tones	8	32	32	63	63
Tone frequency	500-4600 Hz	150-2900 Hz		150-3100 Hz	
Alarm stages	---	3 externally switchable			
Max. sound pressure	103 dB	108 dB	113 dB	120 dB	127 dB
Volume control	adjustable by potentiometer				---
Weight	0,3 kg	0,3 kg	0,6 kg	2,2 kg	3,5 kg

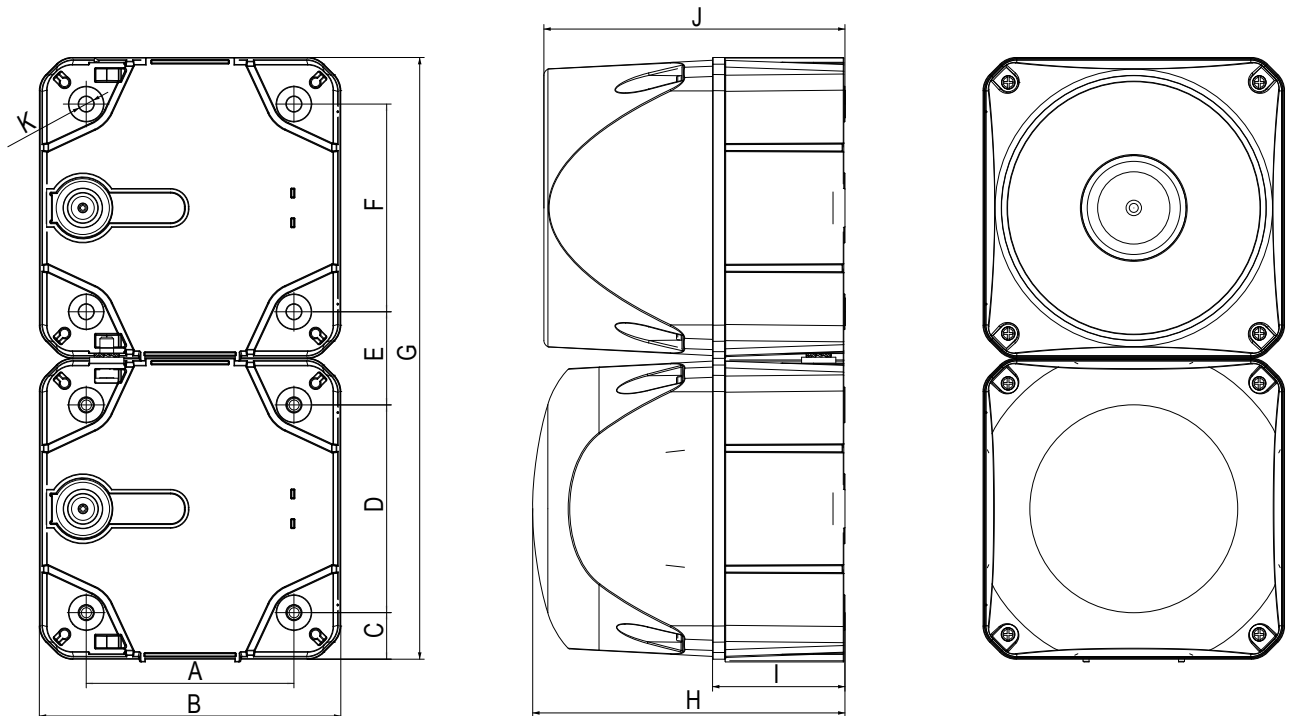
Type	QDS Size 1	QDM Size 2	QDL Size 3	QDX Size 4	QFS Size 1	QFM Size 2	QBL Size 3	QBX Size 4
Housing	polycarbonate							
Housing colour	red RAL 3000							
Lens colour	amber, red, clear, blue, green, yellow							
Cable entry	grommet from back, 5-10 mm cable gland M20x1,5 from side, 7-14 mm (accessory)							
Mounting	arbitrary							
Duty cycle factor	100%							
Terminals	up to 2,5 mm ²							
Temperature range	-30 °C to +60 °C							
Light source	LED				xenon tube		LED	
Life time (light source)	~ 50.000 h				~ 5 mio flashes	~ 15 mio flashes	~ 50.000 h	
Flashing/strobe frequency	~ 1 Hz				~ 1 Hz		double strobe 1,4 Hz / 6 times strobe 1,0 Hz / multi strobe	
Light intensity*	10 Cd	120 Cd	170 Cd	300 Cd	---		250 Cd	400 Cd
Strobe energy	---				~ 5 J	~ 10 J	---	
Weight	0,23 kg	0,5 kg	1,7 kg	2,7 kg	0,3 kg	0,55 kg	1,7 kg	2,7 kg

* valid for clear lenses

ASS-P+QDS/QFS, ASS-T+QDS/QFS (Size 1)



ASM+QDM/QFM (Size 2), ASL+QDL/QBL (Size 3), ASX+QDX/QBX (Size 4)



	A	B	C	D	E	F	G	H	I	J	K
Size 2	91	132	20	91	41	91	264	137	57	132	6,6
Size 3	124	184	30	124	59	124	367	176	73	169	6,6
Size 4	167	228	30	167	61	167	457	223	91	217	6,6

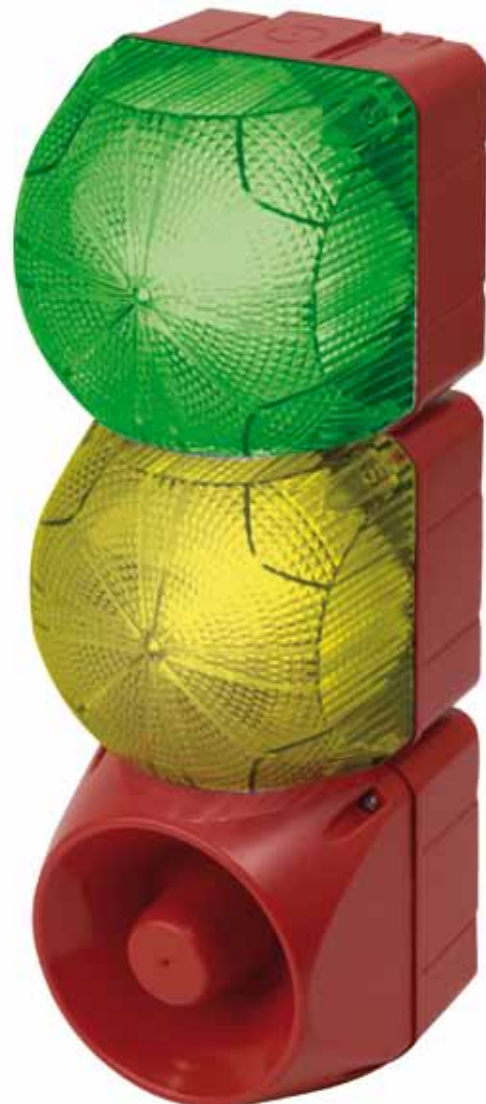
Measuring unit mm

Combinations Multi Tone Alarm Sounders „A“ – Beacons „Q“

Tone table ASS-P						
STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	Max dB
Tone 01	continuous	4600 Hz	=====			103
Tone 02	continuous	1600 Hz	=====			99
Tone 03	intermittent	4600 Hz	— — —	250 ms on / 250 ms off		103
Tone 04	intermittent	1600 Hz	— — —	250 ms on / 250 ms off		99
Tone 05	sweeping	1200 - 500 Hz	∩	1 Hz	evacuation Germany DIN 33404-3	96
Tone 06	sweeping	500 - 1200 Hz	∪	rising in 3 s / 0,5 s off	Netherlands NEN 2575:2000	98
Tone 07	alternating	800 - 1000 Hz	⏏	2 Hz		94
Tone 08	sweeping	500 - 1500 Hz	∩	10 Hz		94

QDS (QFS) + ASS-P (ASS-T)

QDM + QDM + ASM



Tone table

STAGE 1 S1	Tone type	Frequency Hz	Pictogram	Repeat rate	Specific application	ASS-T	ASM	ASL	ASX	STAGE 2 S2	STAGE 3 S3
						max dB	max dB	max dB	max dB*		
Tone 01	continuous	660 Hz	—————		Swedish alarm	101	108	114	116	tone 16	tone 12
Tone 02	continuous	1000 Hz	—————		PFEER toxic gas	103	109	113	117	tone 16	tone 25
Tone 03	continuous	2400 Hz	—————			108	113	120	124	tone 21	tone 17
Tone 04	intermittent	420 Hz	- - - - -	0,625 s on / 0,625 s off	Australian alert AS1670	101	105	109	114	tone 21	tone 01
Tone 05	intermittent	660 Hz	- - - - -	1,8 s on / 1,8 s off	Swedish alarm	102	107	114	120	tone 21	tone 01
Tone 06	intermittent	660 Hz	- - - - -	0,15 s on / 0,15 s off	Swedish alarm	102	107	114	116	tone 16	tone 01
Tone 07	intermittent	970 Hz	- - - - -	1 s on / 1 sec off	PFEER Alarm, BS5839-1:2002	101	109	113	118	tone 18	tone 01
Tone 08	intermittent	970 Hz (950)	- - - - -	0,5 s on/0,5 s off x 3 then 1,5 s off	ISO 8201 low tone, US Temporal	101	109	113	120	tone 16	tone 03
Tone 09	intermittent	800 Hz	- - - - -	0,25 s on / 1 s off		102	107	112	120	tone 27	tone 03
Tone 10	intermittent	700 Hz	- - - - -	0,15 s on / 0,15 s off, total 1 min.	Swedish alarm SS 031711	103	107	112	118	tone 18	tone 02
Tone 11	intermittent	720 Hz	- - - - -	0,7 s on / 0,3 s off	Industrial Alarm Germany	103	108	111	119	tone 02	tone 29
Tone 12	intermittent	2400 Hz	- - - - -	0,5 s on / 0,5 s off		108	113	120	127	tone 03	tone 01
Tone 13	intermittent	2850 Hz	- - - - -	0,5 s on / 0,5 s off x 3 then 1,5 s off	ISO 8201 high tone, US Temporal	100	110	111	120	tone 03	tone 17
Tone 14	alternating	440 - 554 Hz	⏏	0,4 s (440Hz) / 0,1 s (554Hz)	AFNOR France, NFS 32-001	103	106	109	116	tone 16	tone 01
Tone 15	alternating	554 - 440 Hz	⏏	1 Hz	Swedish alarm	103	106	109	116	tone 01	tone 16
Tone 16	alternating	800 - 1000 Hz	⏏	2 Hz		103	109	113	120	tone 02	tone 09
Tone 17	alternating	2400 - 2900 Hz	⏏	2 Hz		108	113	120	125	tone 03	tone 01
Tone 18	alternating	1000 - 2000 Hz	⏏	1 Hz	Singapore	105	110	120	126	tone 02	tone 03
Tone 19	sweeping	500 - 1500 Hz	⏏	10 Hz		102	109	119	121	tone 02	tone 01
Tone 20	sweeping	150 - 1000 Hz	⏏	rising 10 s, 40 s on, falling 10 s	Industrial Alarm Germany	103	109	114	116	tone 01	tone 29
Tone 21	continuous	400 Hz	—————	simulated horn		99	104	109	112	tone 16	tone 02
Tone 22	sweeping	500 - 1200 Hz	⏏	rising in 3,75 s / 0,25 off	Australian evacuation AS 2220	106	109	117	120	tone 02	tone 09
Tone 23	sweeping	500 - 1200 Hz	⏏	rising in 3,5 s / 0,5 s off	Netherlands NEN 2575:2000	106	109	117	121	tone 02	tone 09
Tone 24	sweeping	500 - 1200 Hz	⏏	0,5 s on / 0,5 s off x 3 / 1,5 s off	Australian AS1670 evacuation	105	109	117	120	tone 02	tone 09
Tone 25	sweeping	1200 - 500 Hz	⏏	1 Hz	Evacuation Germany DIN 33404-3	106	109	117	122	tone 02	tone 32
Tone 26	sweeping	500 - 1200 Hz	⏏	0,3 Hz		106	109	117	122	tone 01	tone 32
Tone 27	sweeping	1400 - 1600 Hz	⏏	rising in 1 s / falling in 0,5 s	NFC 48-265	101	111	119	124	tone 02	tone 09
Tone 28	sweeping	2400 - 2900 Hz	⏏	1 Hz		108	113	120	123	tone 17	tone 03
Tone 29	bell					105	109	120	122	tone 16	tone 02
Tone 30	slow rise	500 - 2400 Hz	⏏	siren rising in 3 s, then cont. 2400 Hz		108	113	120	126	tone 16	tone 01
Tone 31	slow rise	300 - 1200 Hz	⏏	siren rising in 3 s, then cont. 1200 Hz		103	110	117	113	tone 16	tone 01
Tone 32	chime	970 - 800 Hz	⏏	repeating ding-dong, 1 Hz		102	109	113	119	tone 29	tone 01
Tone 33	continuous	340 Hz	—————			X	X	109	112	tone 16	tone 03
Tone 34	continuous	500 Hz	—————			X	X	109	112	tone 16	tone 03
Tone 35	continuous	825 Hz	—————			X	X	113	119	tone 16	tone 03
Tone 36	continuous	1500 Hz	—————			X	X	118	120	tone 18	tone 02
Tone 37	continuous	2850 Hz	—————			X	X	111	116	tone 21	tone 01
Tone 38	intermittent	660 Hz	- - - - -	0,5 s on / 0,5 s off	Swedish alarm	X	X	114	117	tone 02	tone 32
Tone 39	intermittent	680 Hz	- - - - -	0,875 s on / 0,675 s off		X	X	114	117	tone 03	tone 32
Tone 40	intermittent	950 Hz	- - - - -	1 s on / 1 s off		X	X	114	120	tone 02	tone 32
Tone 41	intermittent	1000 Hz	- - - - -	1 s on / 1 s off	PFEER general alarm	X	X	113	120	tone 16	tone 03
Tone 42	intermittent	800 Hz	- - - - -	4 ms on / 4 ms off		X	X	112	116	tone 58	tone 03
Tone 43	intermittent	825 Hz	- - - - -	0,5 s on / 0,5 s off		X	X	113	121	tone 16	tone 03
Tone 44	intermittent	825 Hz	- - - - -	2,5 s on / 2,5 s off x 7, then 7 s pulse	IMO SOLAS III/50+SOLAS III/6,4	X	X	113	120	tone 17	tone 02
Tone 45	alternating	440 - 554 Hz	⏏	1 Hz		X	X	109	115	tone 16	tone 01
Tone 46	alternating	825 - 1075 Hz	⏏	1 Hz		X	X	114	121	tone 48	tone 02
Tone 47	alternating	825 - 1025 Hz	⏏	2 Hz		X	X	114	121	tone 48	tone 03
Tone 48	alternating	2500 - 3100 Hz	⏏	0,5 Hz		X	X	117	121	tone 60	tone 03
Tone 49	alternating	2400 - 2850 Hz	⏏	2 Hz		X	X	120	124	tone 12	tone 03
Tone 50	alternating	500 - 900 Hz	⏏	2 Hz		X	X	114	118	tone 41	tone 02
Tone 51	alternating	1200 - 1400 Hz	⏏	25 Hz		X	X	119	122	tone 41	tone 02
Tone 52	sweeping	300 - 1200 Hz	⏏	1 Hz		X	X	117	121	tone 03	tone 32
Tone 53	sweeping	500 - 1000 Hz	⏏	0,15 Hz		X	X	114	120	tone 41	tone 02
Tone 54	sweeping	500 - 1200 Hz	⏏	3 Hz		X	X	117	121	tone 41	tone 02
Tone 55	sweeping	700 - 1500 Hz	⏏	0,3 Hz		X	X	119	122	tone 16	tone 02
Tone 56	sweeping	800 - 1000 Hz	⏏	7 Hz		X	X	114	119	tone 16	tone 02
Tone 57	sweeping	800 - 1000 Hz	⏏	50 Hz		X	X	114	90	tone 16	tone 02
Tone 58	sweeping	2400 - 2900 Hz	⏏	7 Hz		X	X	120	123	tone 17	tone 03
Tone 59	sweeping	2400 - 2900 Hz	⏏	50 Hz		X	X	120	90	tone 17	tone 03
Tone 60	sweeping	2400 - 2900 Hz	⏏	3 Hz		X	X	120	125	tone 17	tone 03
Tone 61	slow rise	0 - 800 Hz	⏏	siren rising 3 s, then cont 800 Hz		X	X	114	118	tone 16	tone 01
Tone 62	chime	554 - 440 Hz	⏏	repeating ding-dong, 1 Hz		X	X	109	116	tone 29	tone 01
Tone 63	chime	554 - 440 Hz	⏏	single ding-dong		X	X	109	116	tone 29	tone 01

* Specifications are provisional and subject to change.



Combinations Multi Tone Alarm Sounders „A“ – Beacons „Q“



Order data

Type	Denomination	Max. sound pressure (dB A)	Nominal voltage (V)	Voltage range (V)	Nominal current (A)	Order-No. Housing red
ASS-P	Multi tone alarm sounder size 1, 8 tones	103	24 V AC/DC	+/- 10%	0,100	874 060 405
			48 V AC/DC		0,075	874 060 408
			110/120 V AC		0,040	874 060 310
			230/240 V AC		0,040	874 060 313
ASS-T	Multi tone alarm sounder size 1, 32 tones	108	24 V AC/DC	+/- 10%	0,150	874 160 405
			48 V AC/DC		0,100	874 160 408
			110/120 V AC		0,042	874 160 310
			230/240 V AC		0,022	874 160 313
ASM	Multi tone alarm sounder size 2, 32 tones	113	24 V AC/DC	+/- 10%	0,150	874 260 405
			48 V AC/DC		0,100	874 260 408
			110/120 V AC		0,042	874 260 310
			230/240 V AC		0,022	874 260 313
ASL	Multi tone alarm sounder size 3, 63 tones	120	24-48 V AC/DC	+/- 10%	1,050	874 360 408
			110/120 V AC		0,170	874 360 310
			230/240 V AC		0,085	874 360 313
ASX	Multi tone alarm sounder size 4, 63 tones	127	24-48 V AC/DC	+/- 10%	2,000	874 460 408
			110/120 V AC		0,350	874 460 310
			230/240 V AC		0,170	874 460 313

Type	Denomination	Light source	Nominal voltage (V)	Voltage range (V)	Nominal current (A)	Order-No. Housing red
QDS	LED steady/flashing beacon size 1	LED 10 Cd	24 V AC/DC	+/- 10%	0,110	874 16C 405
			48 V AC/DC		0,065	874 16C 408
			110/120 V AC		0,060	874 16C 310
			230/240 V AC		0,060	874 16C 313
QDM	LED steady/flashing beacon size 2	LED 120 Cd	24-48 V AC/DC	16-60 V DC	max. 0,300	874 26C 408
			110-240 V AC/DC	16-53 V AC		
QDL	LED steady/flashing beacon size 3	LED 170 Cd	24-48 V AC/DC	18-60 V DC	max. 0,780	874 36C 408
			110-240 V AC/DC	18-53 V AC		
QDX	LED steady/flashing beacon size 4	LED 300 Cd	24-48 V AC/DC	18-60 V DC	max. 1,800	874 46C 408
			110-240 V AC/DC	18-53 V AC		
QFS	Xenon strobe beacon size 1	xenon tube 5 J	24-48 V AC/DC	18-53 V AC/DC	0,450	874 56C 408
			110/120 V AC	+/- 10%	0,150	874 56C 310
			230/240 V AC		0,075	874 56C 313
QFM	Xenon strobe beacon size 2	xenon tube 10 J	24-48 V AC/DC	18-53 V AC/DC	0,900	874 66C 408
			110/120 V AC	+/- 10%	0,260	874 66C 310
			230/240 V AC		0,160	874 66C 313
QBL	LED multi strobe beacon size 3	LED 250 Cd	24-48 V AC/DC	18-60 V DC	max. 0,810	874 76C 408
			110-240 V AC/DC	18-53 V AC		
QBX	LED multi strobe beacon size 4	LED 400 Cd	24-48 V AC/DC	18-60 V DC	max. 1,700	874 86C 408
			110-240 V AC/DC	18-53 V AC		
			110-240 V AC/DC	80-265 V AC/DC	max. 0,400	874 86C 413

Colour code for lens

C

1	amber	5	blue
2	red	6	green
4	clear	7	yellow

Accessories

Type	Denomination	Order No.
AMK	Mounting kit for combinations of multi tone alarm sounders „A“ and/or beacons „Q“	874 010 900
AG1	Flat gasket for size 1 multi tone alarm sounders „A“ and/or beacons „Q“	874 021 900
AG2	Flat gasket for size 2 multi tone alarm sounders „A“ and/or beacons „Q“	874 022 900
AG3	Flat gasket for size 3 multi tone alarm sounders „A“ and/or beacons „Q“	874 023 900
AG4	Flat gasket for size 4 multi tone alarm sounders „A“ and/or beacons „Q“	874 024 900
AB1	Metal bracket kit for size 1 multi tone alarm sounders „A“ and/or beacons „Q“	874 031 900
AB2	Metal bracket kit for size 2 multi tone alarm sounders „A“ and/or beacons „Q“	874 032 900
AB3	Metal bracket kit for size 3 multi tone alarm sounders „A“ and/or beacons „Q“	874 033 900
AB4	Metal bracket kit for size 4 multi tone alarm sounders „A“ and/or beacons „Q“	874 034 900
AKV	Cable gland M20x1,5 for multi tone alarm sounders „A“ and/or beacons „Q“	698 800 026



How to order Multi Tone Alarm Sounder „A“ with same size Beacon „Q“

Multi tone sounders „A“ (Size 1-4) can be combined with same size

- LED steady/flashing beacons „Q“ (size 1-4) or
- Xenon strobe beacons „Q“ (size 1-2) or
- LED multi strobe beacons „Q“ (size 3-4)

Typical configuration:

ASM multi tone sounder (size 2) 24 V AC/DC +
QDM LED steady/flashing beacon (size 2), amber, 24-48 V AC/DC

Type	Order no.	Product
ASM	874 260 405	Multi tone alarm sounder size 2
QDM	874 261 408	LED steady/flashing beacon size 2
AMK	874 010 900	Mounting kit for multi tone alarm sounders „A“ and/or beacons „Q“

