











**MTTF<sub>d</sub> Values for WERMA Signaltechnik Signal Devices in accordance with EN ISO 13849-1:2008**

Article Number	Specifications	MTTF <sub>d</sub> value in accordance with EN ISO 13849-1
<b>Signal Towers KombiSIGN 71</b>		
644.100.75	LED Permanent Light Element 24V AC/DC RD	8781,46 years > 100 years
644.200.75	LED Permanent Light Element 24V AC/DC GN	8781,46 years > 100 years
644.300.75	LED Permanent Light Element 24V AC/DC YE	8781,46 years > 100 years
644.400.75	LED Permanent Light Element 24V AC/DC CL	8781,46 years > 100 years
644.500.75	LED Permanent Light Element 24V AC/DC BU	8781,46 years > 100 years
		
644.140.55	LED EVS Element 24V DC RD	1348 years > 100 years
644.240.55	LED EVS Element 24V DC GN	1348 years > 100 years
644.340.55	LED EVS Element 24V DC YE	1348 years > 100 years
644.440.55	LED EVS Element 24V DC CL	1348 years > 100 years
644.540.55	LED EVS Element 24V DC BU	1348 years > 100 years
		
645.820.75	Siren Element 8 Tones 24V AC/DC BK	607,87 years > 100 years
		
<b>Notice: KombiSIGN 70 elements (843.x00.75, 843.x40.55, 844.126.55) are electronically identical and achieve the same MTTF<sub>d</sub> values as the above mentioned KombiSIGN 71 elements.</b>		
<b>Signal Towers KombiSIGN 50</b>		
845.000.00	Terminal Element	45662,1 years > 100 years
		
848.110.75	LED Blinking Light Element 24V AC/DC RD	2151,8 years > 100 years
848.210.75	LED Blinking Light Element 24V AC/DC GN	2151,8 years > 100 years
848.310.75	LED Blinking Light Element 24V AC/DC YE	2151,8 years > 100 years
848.410.75	LED Blinking Light Element 24V AC/DC CL	2151,8 years > 100 years
848.510.75	LED Blinking Light Element 24V AC/DC BU	2151,8 years > 100 years
		
849.000.75	Buzzer Element 24V AC/DC	2147,8 years > 100 years
		
<b>Installation Beacons</b>		
231.100.55	LED Permanent Beacon 24V DC RD	5568,66 years > 100 years
231.200.55	LED Permanent Beacon 24V DC GN	5568,66 years > 100 years
231.300.55	LED Permanent Beacon 24V DC YE	5568,66 years > 100 years
231.400.55	LED Permanent Beacon 24V DC CL	5568,66 years > 100 years
231.500.55	LED Permanent Beacon 24V DC BU	5568,66 years > 100 years
		
816.100.55	LED Permanent Beacon 24V AC/DC RD	7210,00 years > 100 years
816.200.55	LED Permanent Beacon 24V AC/DC GN	7210,00 years > 100 years
816.300.55	LED Permanent Beacon 24V AC/DC YE	7210,00 years > 100 years
816.400.55	LED Permanent Beacon 24V AC/DC CL	7210,00 years > 100 years
816.500.55	LED Permanent Beacon 24V AC/DC BU	7210,00 years > 100 years
		
<b>Free Standing Beacons</b>		
201.100.75	LED Permanent Beacon 24V AC/DC RD	6939,5 years > 100 years
201.200.75	LED Permanent Beacon 24V AC/DC GN	6939,5 years > 100 years
201.300.75	LED Permanent Beacon 24V AC/DC YE	6939,5 years > 100 years
201.400.75	LED Permanent Beacon 24V AC/DC CL	6939,5 years > 100 years
201.500.75	LED Permanent Beacon 24V AC/DC BU	6939,5 years > 100 years
		
211.100.75	LED Permanent Beacon 24V AC/DC RD	6939,5 years > 100 years
211.200.75	LED Permanent Beacon 24V AC/DC GN	6939,5 years > 100 years
211.300.75	LED Permanent Beacon 24V AC/DC YE	6939,5 years > 100 years
211.400.75	LED Permanent Beacon 24V AC/DC CL	6939,5 years > 100 years
211.500.75	LED Permanent Beacon 24V AC/DC BU	6939,5 years > 100 years
		

Article Number	Specifications	MTTF <sub>d</sub> value in accordance with EN ISO 13849-1
280.120.55	LED Rotating Beacon 24V DC RD	398,08 years > 100 years
280.320.55	LED Rotating Beacon 24V DC YE	398,08 years > 100 years
280.150.55	LED Double Flash Beacon 24V DC RD	397,20 years > 100 years
280.350.55	LED Double Flash Beacon 24V DC YE	397,20 years > 100 years
280.450.55	LED Double Flash Beacon 24V DC CL	397,20 years > 100 years
280.160.55	LED EVS Beacon 24V DC RD	410,93 years > 100 years
280.360.55	LED EVS Beacon 24V DC YE	410,93 years > 100 years
280.460.55	LED EVS Beacon 24V DC CL	410,93 years > 100 years
894.160.55	LED Permanent Beacon 24V DC RD/GN	845,58 years > 100 years
894.180.55	LED Permanent Beacon 24V DC RD/YE/GN	538,7 years > 100 years
829.100.55	LED Perm./Blinking Beacon 24V DC RD	7349,5 years > 100 years
829.107.55	LED Perm./Blinking Beacon 24V DC RD	7349,5 years > 100 years
829.200.55	LED Perm./Blinking Beacon 24V DC GN	7349,5 years > 100 years
829.207.55	LED Perm./Blinking Beacon 24V DC GN	7349,5 years > 100 years
829.300.55	LED Perm./Blinking Beacon 24V DC YE	7349,5 years > 100 years
829.307.55	LED Perm./Blinking Beacon 24V DC YE	7349,5 years > 100 years
829.500.55	LED Perm./Blinking Beacon 24V DC BU	7349,5 years > 100 years
829.507.55	LED Perm./Blinking Beacon 24V DC BU	7349,5 years > 100 years
829.110.55	LED Rotating Beacon 24V DC RD	1000,2 years > 100 years
829.117.55	LED Rotating Beacon 24V DC RD	1000,2 years > 100 years
829.210.55	LED Rotating Beacon 24V DC GN	1000,2 years > 100 years
829.217.55	LED Rotating Beacon 24V DC GN	1000,2 years > 100 years
829.310.55	LED Rotating Beacon 24V DC YE	1000,2 years > 100 years
829.317.55	LED Rotating Beacon 24V DC YE	1000,2 years > 100 years
829.410.55	LED Rotating Beacon 24V DC CL	1000,2 years > 100 years
829.417.55	LED Rotating Beacon 24V DC CL	1000,2 years > 100 years
829.510.55	LED Rotating Beacon 24V DC BU	1000,2 years > 100 years
829.517.55	LED Rotating Beacon 24V DC BU	1000,2 years > 100 years
829.120.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.127.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.128.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.320.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.327.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.328.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.420.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.427.55	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.427.68	LED Double Flash Beacon 24V DC RD	636,73 years > 100 years
829.190.55	LED EVS Beacon 24V DC RD	636,73 years > 100 years
829.197.55	LED EVS Beacon 24V DC RD	636,73 years > 100 years
829.390.55	LED EVS Beacon 24V DC YE	636,73 years > 100 years
829.397.55	LED EVS Beacon 24V DC YE	636,73 years > 100 years
829.490.55	LED EVS Beacon 24V DC CL	636,73 years > 100 years
829.497.55	LED EVS Beacon 24V DC CL	636,73 years > 100 years

Article Number	Specifications	MTF <sub>d</sub> value in accordance with EN ISO 13849-1
<b>Optical-Audible Combinations</b>		
494.060.55	LED Siren Combination 24V DC RD/GN	814,42 years > 100 years
494.080.55	LED Siren Combination 24V DC RD/YE/GN	535,8 years > 100 years
444.100.75	LED Flash/Siren Combination 32 Tones 24V AC/CD RD	983,54 years > 100 years
444.300.75	LED Flash/Siren Combination 32 Tones 24V AC/CD YE	983,54 years > 100 years
150.100.55	LED/Buzzer Combination 24V DC RD	812,20 years > 100 years
150.300.55	LED/Buzzer Combination 24V DC YE	812,20 years > 100 years
420.120.75	LED/Multi-Tone Sounder 8 Tones 24V AC/DC RD	2673 years > 100 years
420.320.75	LED/Multi-Tone Sounder 8 Tones 24V AC/DC YE	2673 years > 100 years
422.120.75	LED/Multi-Tone Sounder 8 Tones 24V AC/DC RD	2673 years > 100 years
422.320.75	LED/Multi-Tone Sounder 8 Tones 24V AC/DC YE	2673 years > 100 years
<b>Audible Signal Devices</b>		
584.000.75	Signal Horn 24V AC/DC	1394,46 years > 100 years
109.000.75	Installation Buzzer 24V AC/DC BK	3013 years > 100 years
109.010.75	Installation Buzzer Pulse Tone 24V AC/DC BK	3013 years > 100 years
144.000.75	Multi-Tone Sounder 32 Tones 24V AC/DC BK/GY	6155 years > 100 years
<b>Values determined in accordance with:</b>		
<b>EN ISO 13849-1:2008, Section C.4</b>		

**Signal Beacons with integrated monitoring function and two potential-free safety outputs**

Article Number	Specification	Performance Level in accordance with EN 13849-1
826.110.55	Monitored Beacon 24V DC RD	PL "e", Category 4
826.310.55	Monitored Beacon 24V DC YE	PL "e", Category 4
826.410.55	Monitored Beacon 24V DC CL	PL "e", Category 4
829.170.55	Monitored LED Beacon 24V DC RD	PL "e", Category 4
829.370.55	Monitored LED Beacon 24V DC YE	PL "e", Category 4
829.470.55	Monitored LED Beacon 24V DC CL	PL "e", Category 4