

EVS – Enhanced Visibility System

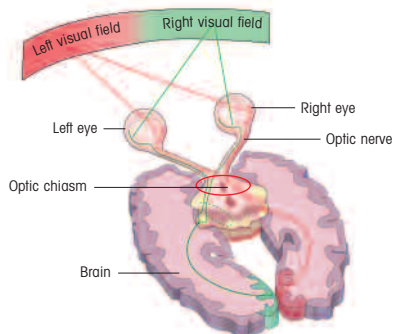


A groundbreaking innovation in LED technology opens up a completely new dimension in optical signalling. Enhanced Visibility System, or the electronic improvement of visibility, for EVS short, is the name WERMA has given to this latest development which promises to bring about a revolution in signal technology.

EVS – ATTENTION-GRABBING LIGHT EFFECT ON NEUROBIOLOGICAL BASIS

Visual Pathways

The way in which the brain processes visual stimuli formed the basis for the development of the new EVS technology



The flickering of neon lamps and comparable lighting effects are highly effective at attracting our attention. The neurobiological basis of this phenomenon is explained by a university scientist as follows: Light signals are processed in the human brain, not directly in the eye. In order to be consciously registered there, incoming stimuli first have to pass through a form of filter. This filter has a "protective function". During sleep it reduces disturbing stimuli to a minimum and assists in "overlooking" regular or continuous signals.

Irregular light impulses can circumvent the brain's filter function. Random light signals fail to generate an acclimatisation effect and the brain is unable to escape the stimulus, even when the flickering continues for an extended period

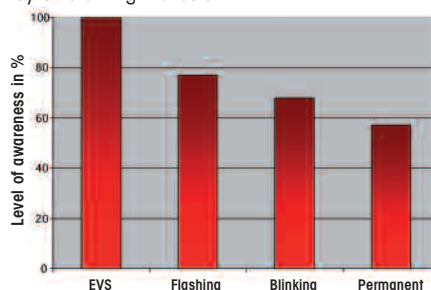
EVS – FLICKERING LIGHT WITHOUT ACCLIMATISATION EFFECT

On the basis of this understanding, WERMA's R+D department set out to find a flickering light with a high degree of effectivity in attracting attention. In a multi-stage laboratory experiment 20 test candidates were asked to judge a series of different light signals and to determine the most eye-catching light. The result of the study was a stochastic flickering light with optimal attention-grabbing characteristics: EVS – Enhanced Visibility System! The light effect of this system is completely new and distinguishes it from all previous systems.

As a result of the extremely powerful signal effect, the EVS light is especially suited to signalling acute or highly important conditions. The EVS element can also be deployed in hazardous situations or in areas where immediate action is required.

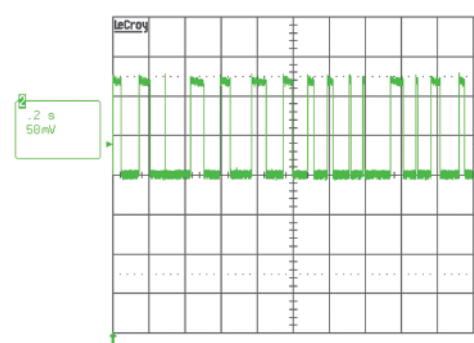
Laboratory Test Results

Level of awareness generated by different light effects



EVS – UNIQUE LIGHT EFFECT VIA LED TECHNOLOGY

Typical 2 second section of an EVS-LED element's illumination sequence



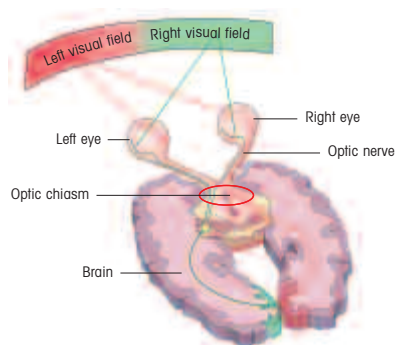
For the EVS system WERMA employs light emitting diodes. A micro-processor generates random light signals. This gives the light a very "agitated" character which proves highly effective in drawing the attention of those in its vicinity – even when seen out of the corner of the eye.

Up to now LED signal devices have confined themselves to imitating the light effects of light bulbs or Xenon flashes, EVS however utilises the strengths of light emitting diodes. LEDs are capable of generating the required high flickering frequency with ease, frequencies which Xenon flashes for example are incapable of generating.

There are a series of additional, classical advantage to LEDs – their resistance to vibration and shocks, their long life duration as well as their low energy consumption.



Integrated into the KombiSIGN Signal Towers, the new EVS LED Element generates a highly attention-grabbing signal



The way in which the brain processes visual stimuli formed the basis for the development of the new EVS technology

- Attention-grabbing flickering light
- Developed on a neurobiological basis
- Extremely powerful signal effect
- Random sequence of light signals prevents acclimatisation effect
- For signalling extremely hazardous situations and the need for immediate action



TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	70 mm x 65 mm
Dome:	PC, transparent
Number of modules possible:	5, with 2-sided bracket max. 10
Starting consumption:	< 500 mA at 24 V
Current consumption:	red / yellow: 200 mA green / blue / clear: 150 mA

Life duration
up to 50,000 hrs



ORDER SPECIFICATIONS:

Voltage	24 V $\equiv$
red	644 140 55
green	644 240 55
yellow	644 340 55
clear	644 440 55
blue	644 540 55



ADDITIONAL INFORMATION:

EVS – Attention-grabbing light effect on neurobiological basis

The flickering of neon lamps and comparable lighting effects are highly effective at attracting our attention. The neurobiological basis of this phenomenon is explained by a university scientist as follows: Light signals are processed in the human brain, not directly in the eye.

In order to be consciously registered there, incoming stimuli first have to pass through a form of filter. This filter has a "protective" function. During sleep it reduces disturbing stimuli to a minimum and assists in "overlooking" regular or continuous signals.

EVS – Flickering light without acclimatisation effect

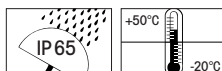
On the basis of this understanding, WERMA's R+D department set out to find a flickering light with a high degree of effectivity in attracting attention. In a multistage laboratory experiment 20 test candidates were asked to judge a series of different light signals and to determine the most eye-catching light. The result of the study was a stochastic flickering light with optimal attention-grabbing characteristics: EVS – Enhanced Visibility System! The light effect of this system is completely new and distinguishes it from all previous systems.

* EVS = Enhanced Visibility System



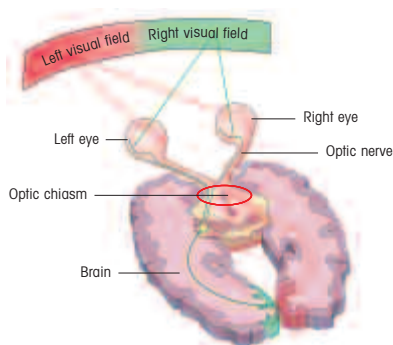
TECHNICAL DIAGRAMS:

see page 267





Integrated into the KombiSIGN Signal Towers, the new EVS LED Element generates a highly attention-grabbing signal



The way in which the brain processes visual stimuli formed the basis for the development of the new EVS technology

- Attention-grabbing flickering light
- Developed on a neurobiological basis
- Extremely powerful signal effect
- Random sequence of light signals prevents acclimatisation effect
- For signalling extremely hazardous situations and the need for immediate action



TECHNICAL SPECIFICATIONS:

Dimensions (Ø x Height):	70 mm x 65 mm
Dome:	PC, transparent
Number of modules possible:	5, with 2-sided bracket max. 10
Starting consumption:	< 500 mA at 24 V
Current consumption:	red / yellow: 200 mA green / blue / clear: 150 mA

Life duration
up to 50,000 hrs



ORDER SPECIFICATIONS:

Voltage	24 V =
red	843 140 55
green	843 240 55
yellow	843 340 55
clear	843 440 55
blue	843 540 55



ADDITIONAL INFORMATION:

EVS – Attention-grabbing light effect on neurobiological basis

The flickering of neon lamps and comparable lighting effects are highly effective at attracting our attention. The neurobiological basis of this phenomenon is explained by a university scientist as follows: Light signals are processed in the human brain, not directly in the eye.

In order to be consciously registered there, incoming stimuli first have to pass through a form of filter. This filter has a "protective" function. During sleep it reduces disturbing stimuli to a minimum and assists in "overlooking" regular or continuous signals.

EVS – Flickering light without acclimatisation effect

On the basis of this understanding, WERMA's R+D department set out to find a flickering light with a high degree of effectivity in attracting attention. In a multistage laboratory experiment 20 test candidates were asked to judge a series of different light signals and to determine the most eye-catching light. The result of the study was a stochastic flickering light with optimal attention-grabbing characteristics: EVS – Enhanced Visibility System! The light effect of this system is completely new and distinguishes it from all previous systems.

* EVS = Enhanced Visibility System



TECHNICAL DIAGRAMS:

see page 288

