

VTS LED Variable Traffic Signs



Basic Information

Thanks to their highly luminous LED elements, the variable traffic signs (VTS) are active traffic signs that use luminous dots distributed in the front area for creating a traffic sign symbol or other traffic information.

They are used in frequented land communications of various classes and in tunnels where there is the need to flexibly regulate the traffic smoothness with respect to the current situation. This traffic sign advantage consists in its good visibility and the possibility of instant changing the symbols and the long interval for LED maintenance.

The traffic sign design complies with CSN EN 12966-1 "Vertical Traffic Signs – Variable Traffic Signs" and CSN EN 12899-1 "Fixed Vertical Traffic Signage – Part 1": Fixed Traffic Signs".

The combination of imaged symbols of traffic signs is defined by the traffic solution in the given location. The most frequent are combinations of symbols of warning and banning signs, and light signals. 2 to 10 symbols are used in common applications. The size and shape of symbols are selected with respect to the location of use and in accordance with CSN EN.

Technical Description

The cabinet is welded of custom aluminium channels or steel of class 17348, the front and rear walls, including the service door, are made of aluminium or stainless sheet of class 17348. Ventilation openings with anti-dust filters are located in the sidewalls of the cabinet. All parts may additionally be protected against corrosion with powder coating; the paint in stainless signs reduces unwanted reflections. Inside the cabinet, there are located the constant current sources for supplying LEDs or other luminous elements, and electronics ensuring communication with the control worksite, switching the blocks with LEDs imaging traffic or information symbols, verifying the function of elements, smoothly controlling the sign luminosity depending on the ambient illumination, and maintaining appropriate climatic conditions inside the cabinet for the LED elements optimal function.

Single luminous dots that image a traffic sign symbol in the front plate are fit up with an optical lens, a connecting case, and a LED element emitting the monochromatic light of the specific wavelength.

The optical lens is astigmatic, i.e. the radiated luminous flux is asymmetrical and directed to the precisely defined angles. Lens material: PMMA with UV stabilisation, service life 10 years, or borosilicate glass.

The sign is fixed to a support structure allowing the sign adjustment vertically and horizontally.

For highlighting, the sign may be added a contrast frame or a supplemental table for verbal information.

Classification

Per CSN 12 966-1			Per CSN 12 899-1	
VTS/V	<i>Radiation Angle</i>	B 1	<i>Plate Edges</i>	E 3
	<i>Luminance</i>	L 3		
VTS/T	<i>Radiation Angle</i>	B 3	<i>Wind Load</i>	WL 2
	<i>Luminance</i>	L 3		
<i>Colour</i>		C 2	<i>Point Load</i>	PL 3
<i>Luminance Ratio</i>		R 2	<i>Dynamic Snow Load</i>	DSL 0
<i>Temperature:</i>		T 2	<i>Max Value of Flat Deformation</i>	
<i>Dirtiness</i>		D 2	<i>- Deflection</i>	TDB 4
<i>Protection (Coverage)</i>		P 2	<i>- Torsion</i>	TDT 5
<i>Openings in Active Plane</i>		P 2	<i>Anti-Corrosion Finish</i>	SP 1

Basic Technical Data

Type:	VTS-LE
Luminous sources:	Highly luminous LEDs
Control:	RS 485
Supply:	230 V / 50 Hz
Protection:	IP65
Operation temperature:	-25°C up to +55°C
Input:	20 to 125 W (model-dependent)
Basic dimensions (mm):	A = 350; 560; 760; 1,000; and 1,300 mm
Basic mass:	11 - 85 kg (model-dependent)
Material:	AL.424005 or OC.17348

Contact

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