



MOBILE TELEMATICS

HIGH-PERFORMANCE SOLUTIONS FOR
EFFICIENT TRAFFIC MANAGEMENT

MOTION IS EVERYTHING



Dear customers, partners and prospective customers,

The increasing number of passenger and goods vehicles on the roads requires a more and more complex traffic management. We offer everything you need for this from one single source: the central unit, operation centre as well as control and display sections for a wide range of applications. Furthermore, you can benefit from a system with modular design, into which even future technologies, innovations and enhancements can be easily integrated. Learn about our compliant solutions for mobile traffic management and our comprehensive services.

JAN VOGT

*Commercial manager and
authorized representative*

KAI FREUND

*Technical manager and
authorised representative*

EVERYTHING FROM ONE SINGLE SOURCE

Benefit from our comprehensive package with numerous services from one single source. With mobile telematics designed by Nissen, we offer you complete solutions for various applications – including hardware, software and service.



The spirit

Rely on our strong and motivated team – we look forward to being part of your success!



The hardware

Proven quality provided by the leading manufacturer in the field of mobile traffic safety.



The software

Web-based application with intuitive user interface and many features.



The team

Expert advice – provided by our back office and field service staff – whenever and wherever you need it.



The service

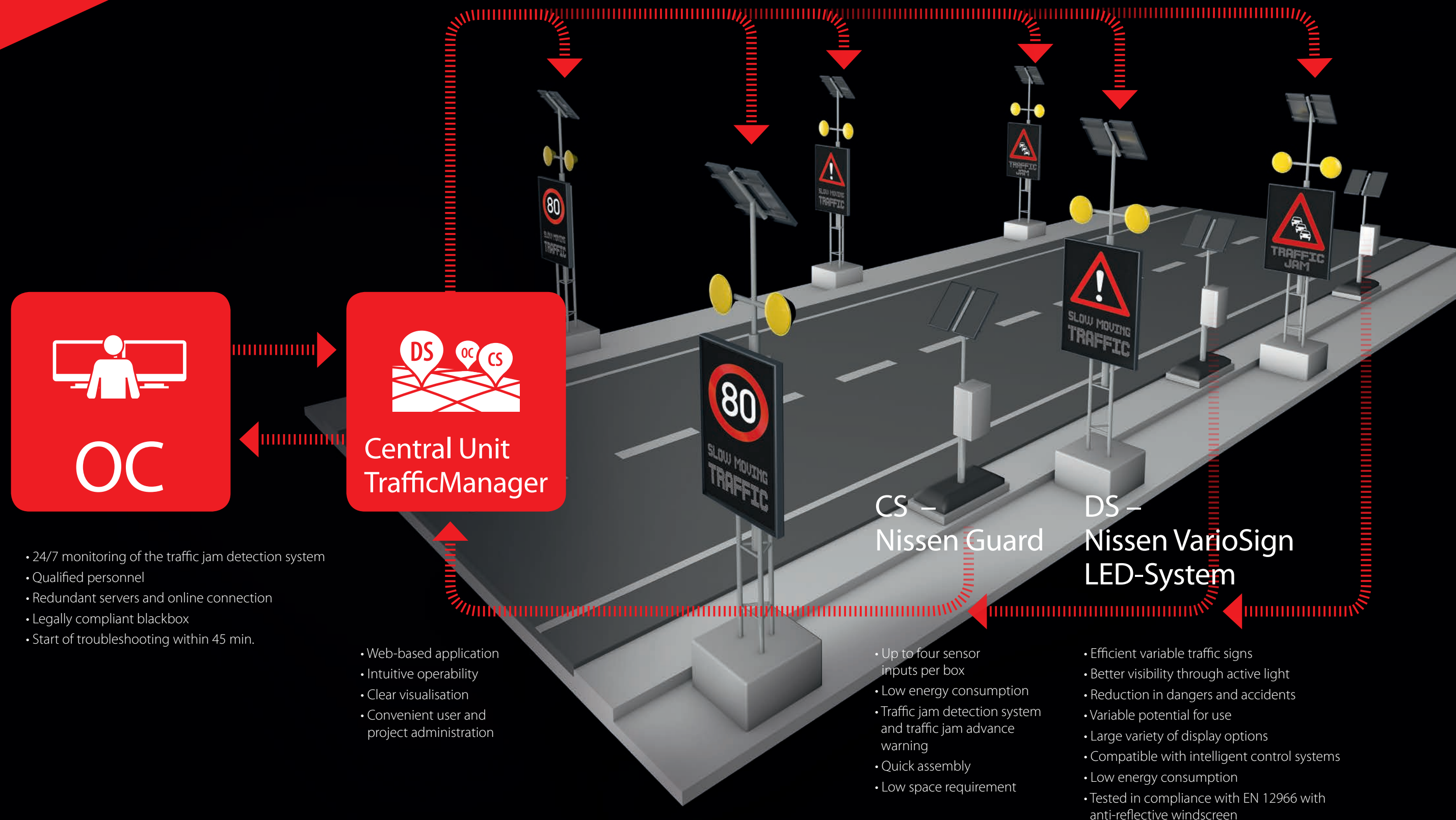
Technical support for your project and 24/7 support in the OC.



The flexibility

We develop individual solutions which can be adapted to changed requirements quickly and flexibly.

MOBILE TELEMATICS



CONTACT



CONTACT

Always there for you!

Nissen provides you with a competent and highly motivated team for all questions with regard to mobile telematics.

We're always there for you – by phone, by email and also on site.



The best products and solutions also deserve the best service. Therefore, a team with skilled expertise is provided to you at Nissen at all times, specially supplemented by a specialist for mobile telematics. We're there for you, whenever and wherever you need us. With advice and practical support, long-standing experience, technical know-how, reliable knowledge of regulations, and we take pleasure in our joint success. What can we do for you?



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One call away

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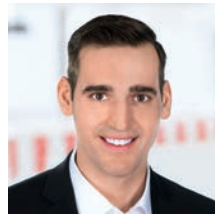
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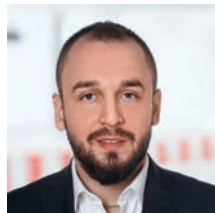
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CENTRAL UNIT



Programmed for safety

The TrafficManager central unit is a high-performance software for mobile traffic management, which complies with the IT safety requirements for critical infrastructures. The numerous benefits provided by the web-based application almost allow for universal applicability.

Everything on the radar

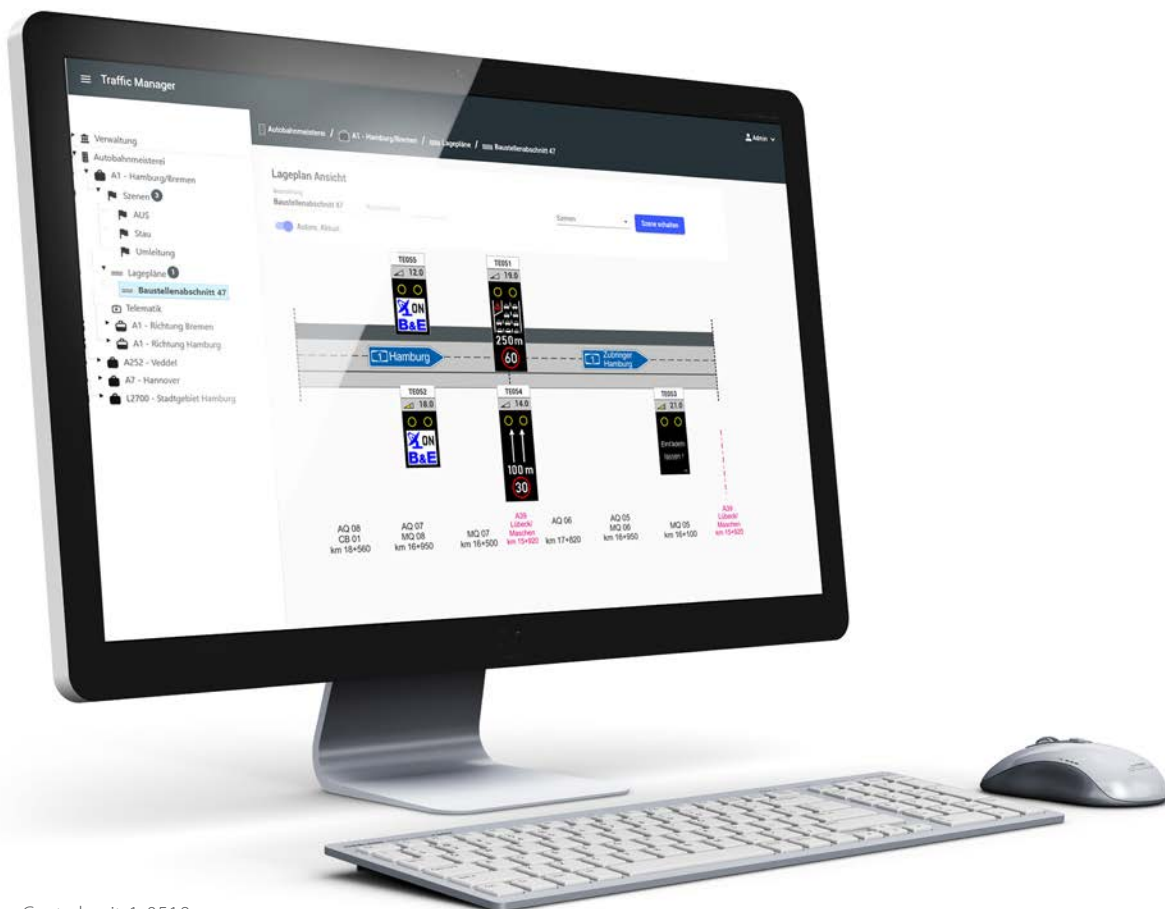
With the TrafficManager central unit, control and display sections can be remotely monitored and switched manually or by automatic means. In this way, you can safely and efficiently implement a variety of different road traffic tasks.

Freely scalable

Display sections can be switched individually or combined in groups, in order to enable the isochronous switching of any number of devices. For this purpose, scenes for faster switching processes can be programmed.

Safe control

Via the central unit, you can check the status of the monitored display sections at all times. This for example includes the switching history, charging state and connection quality as well as the signs provided. Furthermore, the display sections transmit their status at regular intervals and, in the event of faults, they immediately output an error message.



CENTRAL UNIT

Unique identification

Usually, two display units are combined to one display section in each case. The display section is provided with an individual ID, logs in to the central unit after activation and can be located via GPS. In this way it is ensured that each display section is always only assigned to one project.

Clear visualisation

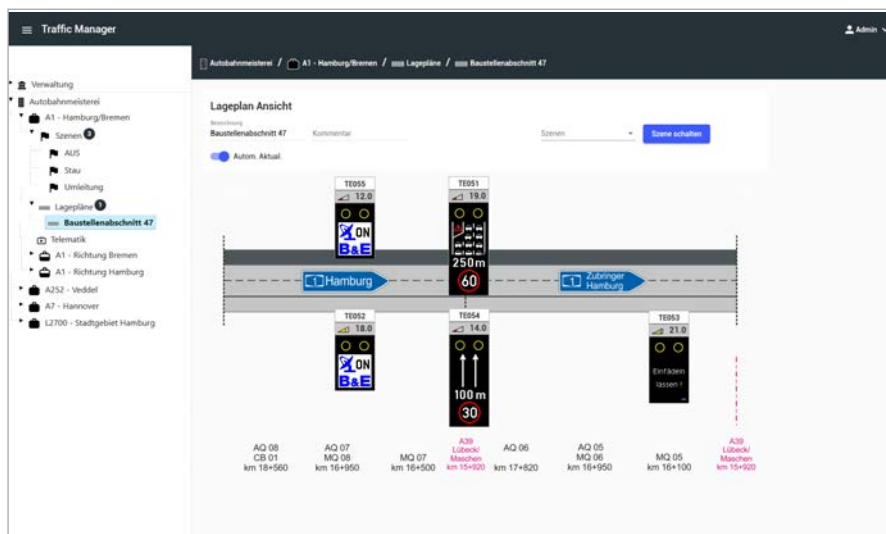
For each project, the central unit can show a live view of each display section. Furthermore, a site map view is provided to you, within which control and display sections can be represented so as to comply with traffic regulations.

Network-independent availability

The central unit as well as the control and display sections communicate via protected mobile network connections. The optional use of multiple providers guarantees network-independent availability and also ensures service in border regions with foreign networks. In the operation centre, the software is provided on redundantly mirrored servers with a redundant online connection.



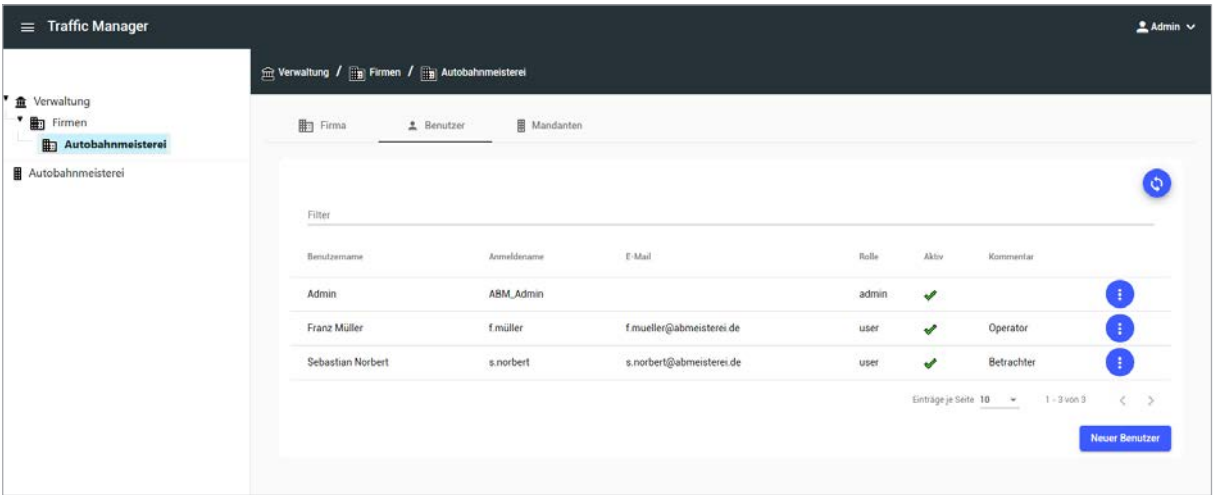
Device monitoring



Intuitive operating concept

The user interface of the TrafficManager stands out by its clearly structured design, providing for easy and safe handling. All functions are arranged in a concise and self-explanatory fashion. Furthermore, the user interface, which is based on the well-known operating system Windows®, can be individually adapted to your personal requirements.

User overview



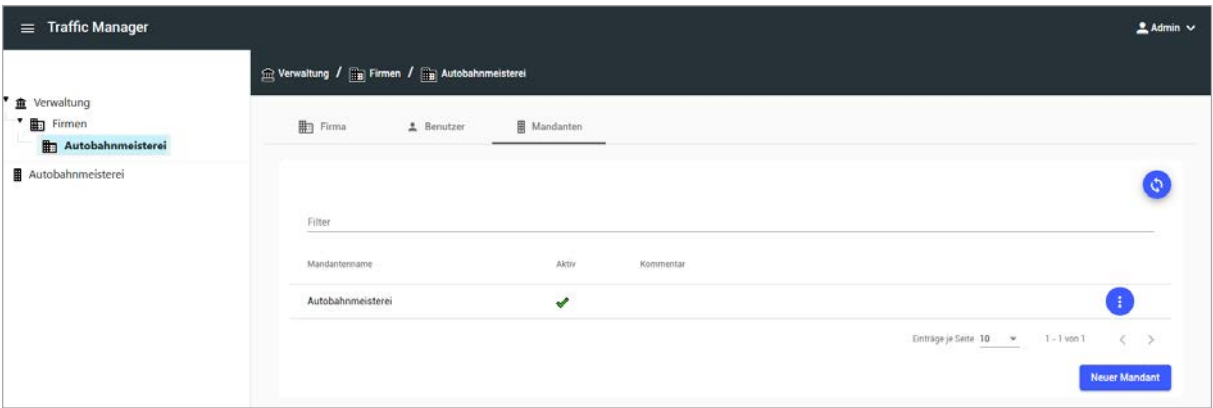
Individual assignment of rights

The TrafficManager is provided with an administration of user rights which is both easy and extensive. In this way, companies and clients can be set up, and rights for administrators, operators and observers can be allocated. You can assign the rights to projects and reduce them to individual display sections. Special advantage: several projects can be managed at the same time without login and logout.

Companies, clients and projects

A company can create one or several clients. Each client can manage one or several projects. Depending on the assignment of rights, the clients can maintain the projects themselves or have them maintained.

Client overview



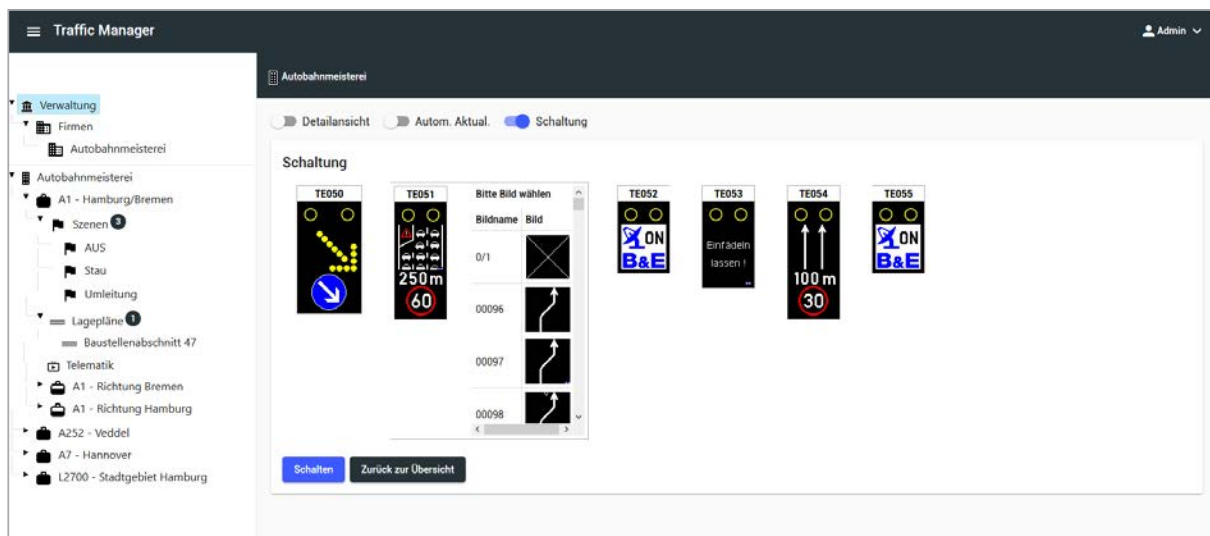
CENTRAL UNIT

Automatic switching

LED variable traffic signs are switched automatically according to the data transmitted by the control sections. Switch cycles for specific days, times and self-defined periods of time can be established. Furthermore, logic links of LED variable traffic signs combined with sensors with defined periods of time can be made.

Manual switching

With the Nissen TrafficManager, predesigned signs from the library stored in the LED variable traffic sign can be switched. Scenes can be preconfigured for any number of signs. In addition, freely programmable content can be created by the user.



Legally binding documentation

The operation of your projects is continuously documented, represented graphically and stored in a legally compliant blackbox. This makes it possible to retrace every switching process and, in the case of manual switching, even the respective user.

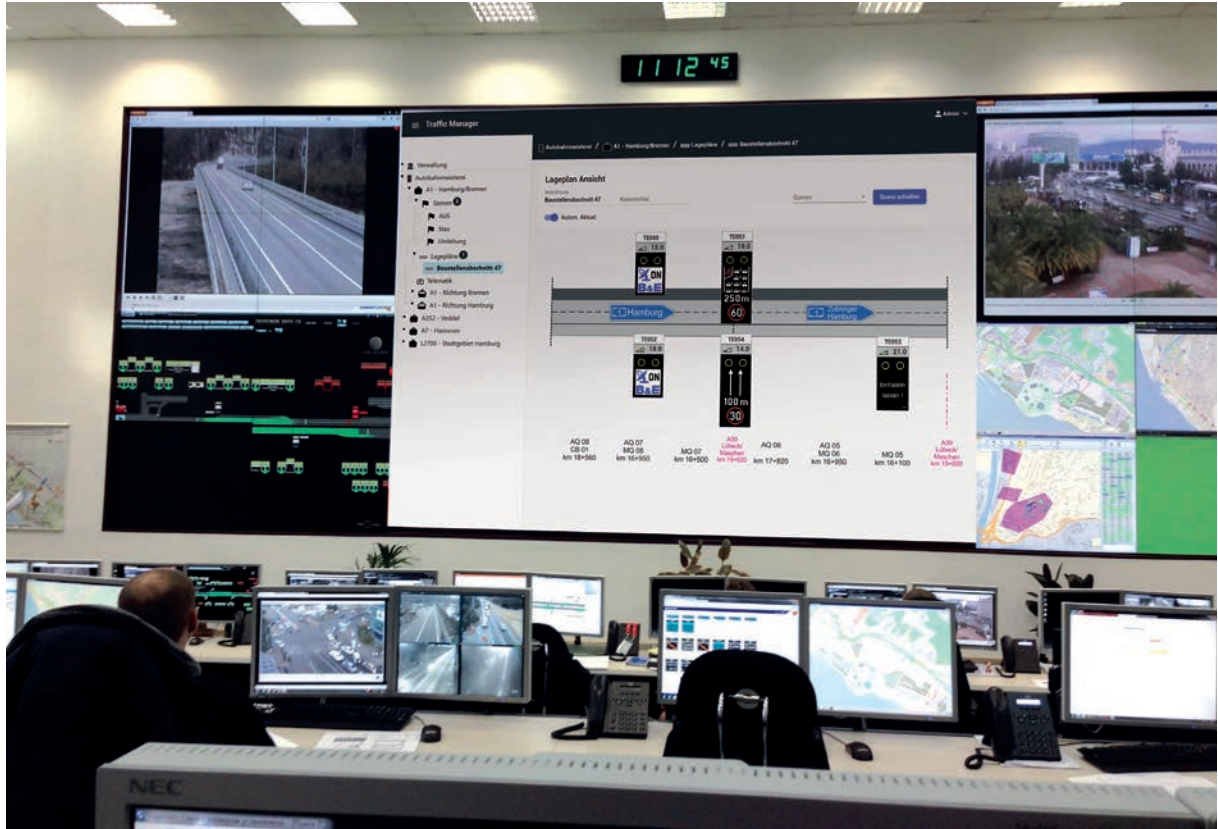
OPERATION CENTRE



Under control 24/7

For a legally compliant use of mobile telematics in accordance with M TI 2015, we provide an individual data centre to you.

This data centre complies with IT safety requirements for critical infrastructure. Certified specialists monitor your projects around the clock.



Bespoke performance

The operation centre meets all legal requirements for contract data processors and the monitoring of telematics applications in road traffic. It comprises powerful and redundantly mirrored servers as well as a redundant online connection. This makes it possible to compensate for simple failures at any time. For tenders you'll receive a certificate with regard to the technical properties.

OPERATION CENTRE



Competently staffed

Your project is monitored around the clock by certified specialists in the operation centre. Our experts keep in view the faultless operation of your application at all times, respond in compliance with M-TI within 45 minutes in the event of faults and also intervene if special incidents occur.

Legally binding documentation

The operation of your projects is continuously documented and stored in a legally compliant blackbox. This makes it possible to retrace every switching process and, in the case of manual switching, even the respective user.



CONTROL SECTION



You can count on that

The proven Nissen Guard traffic box is utilised as control section. This design is characterised by results comparable to those of stationary measuring systems as well as by its uncomplicated handling and its low power consumption.

In order to ensure an optimum control of the traffic flow, the traffic density has to be measured as accurately as possible, and the corresponding data must be quickly transferred to the central unit. For this purpose, so-called control sections (CS) are utilised. Nissen Guard is a powerful traffic box with up to four radar sensors. These sensors record the number of vehicles and their speed across several lanes. The Level of Service (LOS) determined in this process is transferred to the central unit via a secure mobile network connection. The data recorded can be utilised for the purposes of advance warning and warning of traffic jams as well as for other purposes via different platforms. Furthermore, Nissen Guard provides the following benefits:

- High measuring accuracy
- Mobile deployment and ease of use
- Quick mounting
- Low energy consumption, long service times
- Independent power supply through optional solar modules
- CE-compliant detector heads, notified in compliance with EU Directive 1999/5/EC



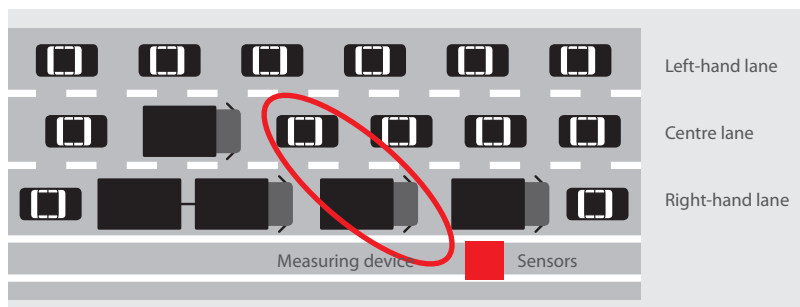
CONTROL SECTIONS

Developed for practical applications

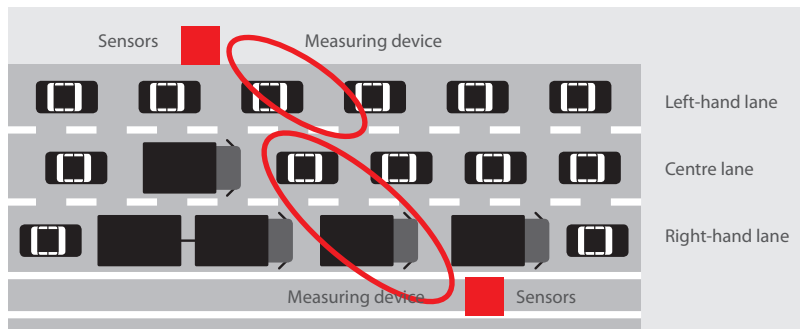
Usually, control sections consist of one measuring unit that is positioned at the right-hand lane. If the traffic density of a specific lane is to be determined, the control sections may also consist of two measuring units which are positioned at the right-hand lane and on the centre lane. As an alternative, the measuring units can also be mounted above the lanes. Thanks to the four sensor inputs, you only need

one traffic box in this case. By permanent recording of the number of vehicles and the vehicle speeds, the traffic density on the individual control sections is determined. The speeds are conditioned by exponential smoothing, thus preventing exceptions from causing the activation of a traffic jam warning. The status is transmitted at intervals of max. ten minutes. A change in the LOS is transmitted immediately.

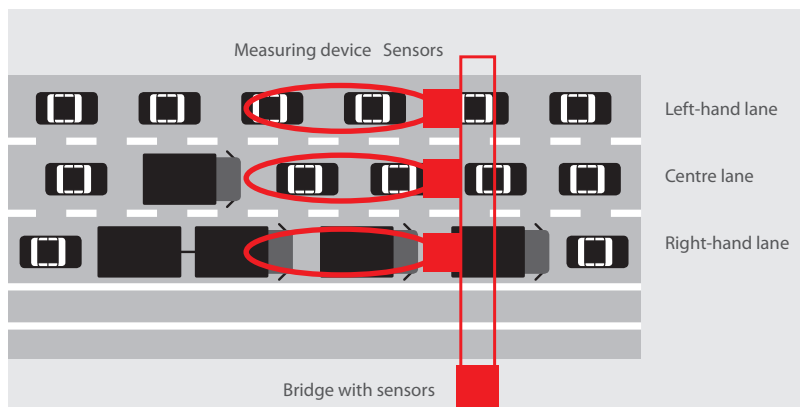
Speed detection from the hard shoulder



Speed detection from the hard shoulder and centre lane



Speed detection via overhead sensors



More options with the MultiController outstation

The ideal add-on: the MultiController outstation provides you with additional options for monitoring and controlling a wide range of devices.

Nissen's MultiController outstation acts as a universal interface that ensures reliable communication between various devices. Sensors, barriers, VMS display sections and similar installations can be both automatically and manually monitored and controlled in combination with the TrafficManager. The relevant circuit board can be either integrated in the device or in a separate control box.

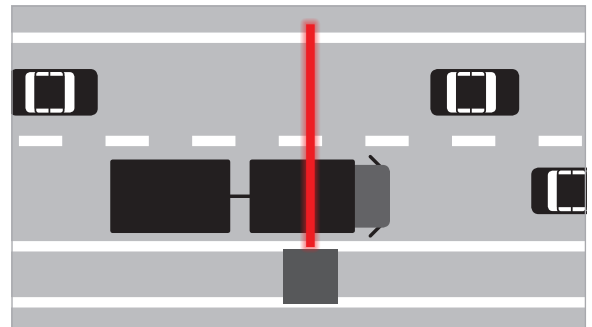
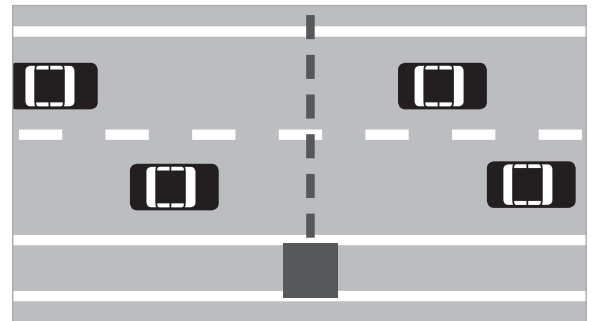
Potential uses:

- Anti-theft alarm
- Battery box opening control
- Light gate control
- External sensor control
- CB radio activation
- Simple traffic light system activation
- Traffic camera control
- and much more

A wide range of potential applications

Height control:

An optical sensor can be connected via the interface to a VMS display section. When the approach of too high a vehicle is detected, the detour sign is activated and the vehicle is appropriately rerouted.



Automatic triggering
of height control

With manual
control

Access control:

Electrically-operated car park barriers can be linked with the MultiController outstation and automatically controlled by means of automatic number-plate recognition or manually operated with the help of the TrafficManager software.

GPIO-Konfiguration

Platine: 1

Eingänge - (6 Aktiv)

	Gerätename	Alias-Name	Aus	An
<input checked="" type="checkbox"/> Eingang - 1	DD414-1-I-1	Höhenkontrolle	0	1
<input checked="" type="checkbox"/> Eingang - 2	DD414-1-I-2	Schranke 01	1	1
<input checked="" type="checkbox"/> Eingang - 3	DD414-1-I-3	Schranke 02	1	1
<input checked="" type="checkbox"/> Eingang - 4	DD414-1-I-4	Ampel Grün	1	1
<input checked="" type="checkbox"/> Eingang - 5	DD414-1-I-5	Ampel Rot	1	1
<input checked="" type="checkbox"/> Eingang - 6	DD414-1-I-6	Höhenkontrolle	0	1
<input type="checkbox"/> Eingang - 7				
<input type="checkbox"/> Eingang - 8				

Ausgänge - (0 Aktiv)



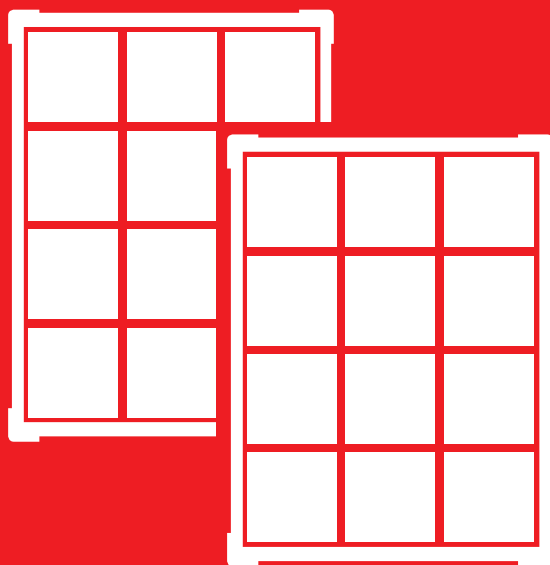
Technical data

- Eight digital inputs (5 - 30 V)
- Eight digital outputs
- Four relay outputs (max. 125 V DC, 1A)
- All inputs and outputs can be used independently of each other
- Required power voltage: 12/24 V
- Can be employed as an integrated module or stand-alone control box
- Compatible with Nissen TrafficManager

Learn more about how use of the MultiController outstation will benefit you – we will be happy to advise you!

nissen-germany.com/telematics

DISPLAY SECTION



For maximum visibility

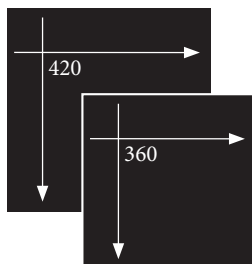
As display sections, the variable traffic signs from the proven Nissen VarioSign LED system are utilised. The SMD PCBs manufactured by Nissen in Germany can be configured in different sizes, are secured by means of a stable aluminium frame and can display dynamic signs and texts. The LEDs are covered by a special anti-reflective screen which even provides maximum visibility at daylight. This optical system including the screen is approved and CE-certified. Furthermore, the extremely low energy consumption of LED technology enables particularly long service times. Each LED variable traffic sign has a library stored on a medium and can be freely programmed.

Advantages at a glance

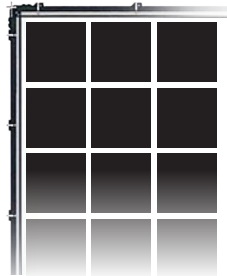
- Better visibility through active light
- Tested in compliance with EN 12966 with anti-reflective screen
- Reduction in traffic jams, dangers and accidents
- Variable potential for use
- Diverse range of display options
- Compatible with intelligent control systems
- Low energy consumption



Basic modules



Aluminium profiles



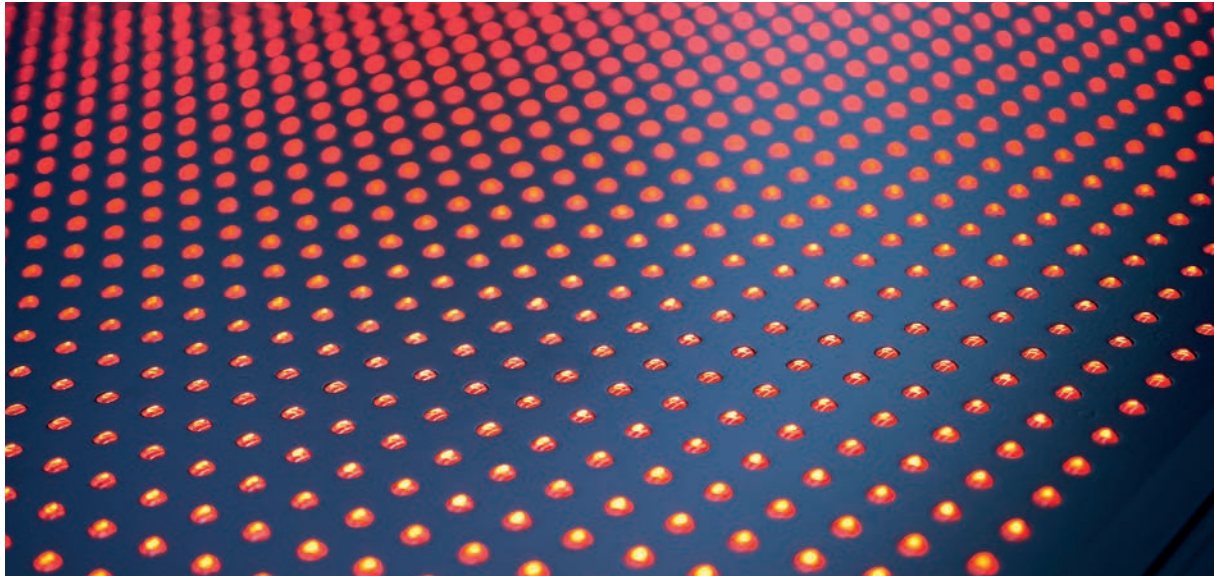
LED Classic



Programming



RGB – more colours, more options



Perfect for traffic management at events: All LED variable traffic signs from the Nissen VarioSign LED system are also available in the RGB variant with 256 colours. Here, a lens technology patented by Nissen is utilised, allowing for a 100 percent colour display. Just like the Classic variant, the LED variable traffic signs with RGB technology can display any signs and texts, and, in addition, they can be freely programmed.



LED RGB



LED Variable Message Sign

VarioSign



PROFILE FRAME

- A perfect solution for mobile applications
- Powder-coated aluminium profile housing (AlMg3)
- Universal mounting by C-profiles on the rear side
- Impact-resistant anti-reflective polycarbonate front pane (classic)
- Patented lens technology (RGB)
- Separate control housing on the rear side to provide easy maintenance access

LED DISPLAY

- Full matrix for displaying freely programmable static or dynamic texts and symbols to animations
- Good recognizability of the signs from almost every perspective and even from long distances
- Certified in compliance with EN 12966:2005+A1:2009
- Complies with data sheet MTI 2015
- Grid dimension 20 mm
- Optionally 1-256 colours
- Premium quality light-emitting diodes with a long service life
- Continuous brightness adjustment, automatic or manual
- Available in different display sizes

CONTROL & ELECTRICAL SYSTEM

- Manual cable control for operating all functions via one-touch keys
- 12/24 V operating voltage
- Optimized power supply for long operating times

Possible LED variable message signs

Type	LED surface (mm)	housing size (mm)
2x2-420	840 x 840	970 x 970
3x3-360	1080 x 1080	1210 x 1210
3x4-420	1260 x 1680	1390 x 1810
4x4-360	1440 x 1440	1570 x 1570
4x4-420	1680 x 1680	1810 x 1810
5x3-420	2100 x 1260	2230 x 1390
5x4-420	2100 x 1680	2230 x 1810
7x3-420	2940 x 1260	3070 x 1390
7x4-420	2940 x 1680	3070 x 1810

Typical applications

- Mobile traffic jam warning system
- Risk signalling
- Changing traffic routing
- Traffic management
- Signposting for events
- Height control
- Warning systems for the prevention of accidents involving deer
- Information display



More information
NIS-01648
To be entered on nissen-germany.com



ACCESSORIES AND OPTIONS

- Combined manual radio-cable control for operating all functions via touchscreen and one-touch keys
- Control and monitoring via Traffic Manager
- Open interface
- advanced warning lamps
- 230 V voltage supply

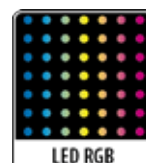
Technical data

Operating voltage	12/24 Volt
Light source	LED
LED/m ²	2500
Material housing	Aluminium, seawater-resistant

VarioSign LED Variable Message Sign

Ref. No.

VarioSign ^{SMD} Type 2x2-420, 12/24 V, red/white fully assembled with external control box, weight ca. 40 kg	229 291-22-103
VarioSign ^{SMD} Type 3x3-360, 12/24 V, red/white fully assembled with external control box, weight ca. 55 kg	229 290-33-103
VarioSign ^{SMD} Type 3x4-420, 12/24 V, red/white fully assembled with external control box, weight ca. 85 kg	229 291-34-103



Accessories for LED variable traffic signs

Equip your display sections with optional accessories and enhance your scopes of application.

Battery monitor

Ensure long-term performance of your variable traffic sign. The optional battery monitor sends you a warning in advance, before the capacity of your battery is too low for operation. The device also monitors the charging process and protects against overloading. In this way, you effectively avoid unexpected failures and damage to the electrical system. A separate SIM card makes it possible to reset the sign and restart it.

XML interface package

This module enables secure data exchange between several devices. This makes it possible to remotely control variable traffic signs equipped with the XML interface package – including all functions. In addition, your variable traffic sign can also send data to control systems.

Operating hours meter

The detailed documentation of the use of your variable traffic signs lets you detect wear and tear in advance and replace parts before they fail, e. g. bulbs, batteries or mechanical components. The battery monitor also provides you with critical information to make your billing easier.

NiBus modem

This digital data interface lets you control and monitor our warning and barrier systems in compliance with safety standards, regardless of your location. In addition, the NiBus modem can also be used to integrate systems into common construction site management systems.

Wotan radio repeater

With the WOTAN (Wireless Over-The-Air NiBus) radio repeater, up to four variable traffic signs (VTS) can be synchronised. The images, traffic signs or symbols (also dynamic symbols) which are set on the first variable traffic sign are synchronised on the other variable traffic signs.

Mobile Traffic Management

PrismSign



CHASSIS AND BODY

- Ideal solution for use in a mobile Traffic management
- Powder-coated aluminum profile housing (AlMg3)
- Mounting made of galvanized steel
- Separate control housing on the rear side to provide easy maintenance access
- Ball bearing made of galvanized steel with long lasting oil film
- Protection class: IP68

PRISM DISPLAY

- Prism Display for presentation of 3 different symbols/ traffic signs:
 - Figure 1: grey
 - Figure 2: German traffic sign VZ101 + risk of traffic jam
 - Figure 3: German traffic sign VZ124 + traffic jam
- 12 vertically prisms
- Prisms made of aluminum (AlMg3)
- Display area: 1266 mm x 1660 mm (W x H)
- Approved according to EN 12966-2005+A1:2009
- micro prismatic retroreflective foil

CONTROL & ELECTRICAL SYSTEM

- Minimize the installation time for the whole system
- Optimized power supply for long operation times
- No permanent power consumption during long-term activation of the display area
- No external rechargeable battery necessary
- Optional with solar panel

APPLICATION EXAMPLES

- Mobile traffic jam warning system
- Changing traffic routing
- Traffic control

ACCESSORIES AND OPTIONS

- Control and monitoring via Traffic Manager
- Combined manual radio-cable control for operating all functions via touchscreen and one-touch keys
- Open interface
- advanced warning lamps
- 230 V voltage supply



Technical data

Operating voltage	12/24 Volt
Insulation	IP68 (housing)
Dimensions (HxWxD)	1905 x 1546 x 124 mm
Material housing	Aluminium, seawater-resistant

Mobile Traffic Management PrismSign

Ref. No.

Traffic sign prism, German version
display area: 1266 x 1660 mm, 12 V, with cable
page 1: grey
page 2: German traffic sign VZ101 + risk of traffic jam
page 3: German traffic sign VZ124 + traffic jam

081 628-31



More information
NIS-02193
To be entered on nissan-germany.com

Multi-purpose sign base

- Mast sections made of corrosion-resistant hot galvanized steel
- The multi-purpose sign base can be set up and assembled modularly
- Wind load calculations according to German standards
- Concrete base including box for 2x 210/230 Ah rechargeable batteries or 4x 140/180 Ah rechargeable batteries
- Rechargeable battery box lockable with lock securing
- Mast diameter $\varnothing 133$ mm
- Statics calculation verifiable on request (for LED variable message signs 3x4K420)
- Optionally available with solar package



Dimensions (HxWxD)
3360 x 2200 x 900 mm



Dimensions
Transport (HxBxT):
2520 x 2200 x 900 mm



Weight
Foundation: 1050 kg

Multi-purpose sign base

Ref. No.

Multi-purpose sign base with concrete base for LED variable message signs
2x2K420 (850 x 850 mm), 3x3K360 (1210 x 1210 mm) or 3x4K420
(1390 x 1810 mm)

080 460-01

Accessories and Spare parts

Ref. No.

Lower mast section for Multi-purpose sign base

080 460-01-02

LED variable message signs

Middle mast section for Multi-purpose sign base

080 460-01-03

LED variable message signs

Top mast section for Multi-purpose sign base

080 460-01-04

LED variable message signs

Cross stud for mounting solar modules

080 460-01-05

Lead Gel Rechargeable Battery 12V 210 Ah (discharge of 20 h),
for drive purposes and lighting, cycle-resistant

165338



More information

NIS-02257

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MOBILE TRAFFIC JAM DETECTION SYSTEM



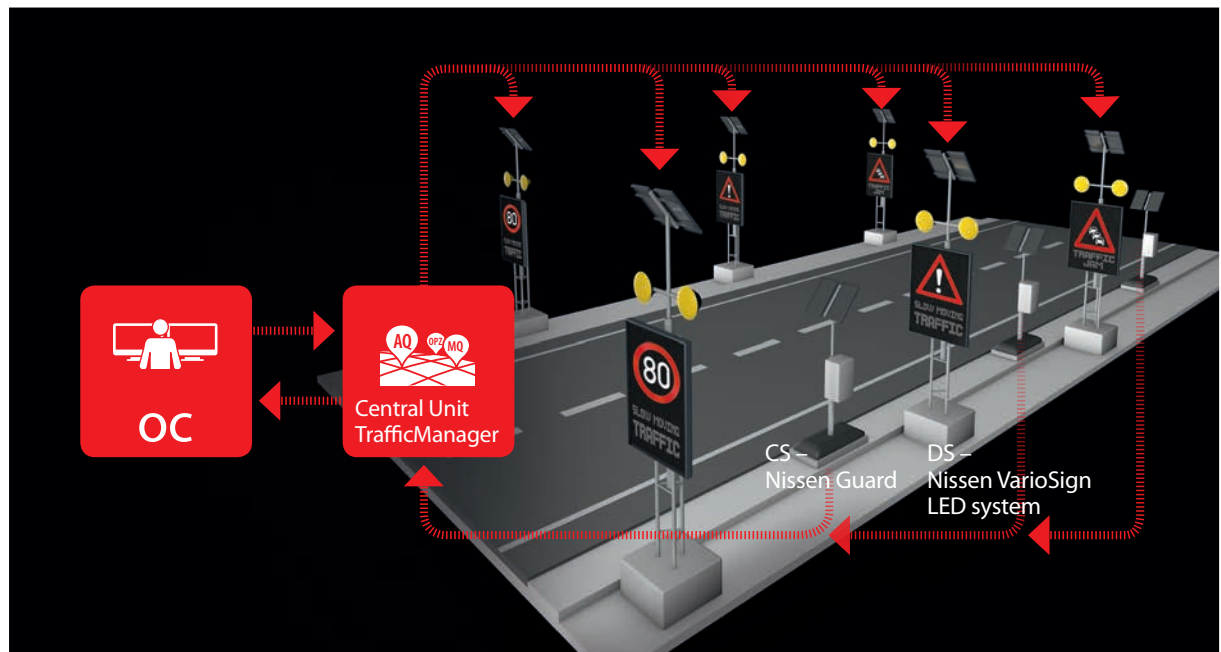
Automatic warning

Construction sites in road traffic impair the traffic flow, can cause the traffic to come to a halt, and increase the risk of accidents.

Mobile traffic jam detection systems output a warning well before traffic congestion is building up, and can even prevent the build-up of traffic jams by intelligent traffic management and are therefore able to improve the traffic flow.

Dynamic safety

Static traffic signs are not suitable for detecting bottlenecks and for warning of a build-up of traffic jams. In hazardous situations, they cannot be perceived quickly enough and they cannot be adapted to the current traffic volume. The mobile traffic jam detection system designed by Nissen provides the optimum solution for this task. The combination of dynamic LED variable traffic signs (DS), sensors for measuring the traffic density (CS), and a powerful software as central unit controls traffic in an automated and safe fashion.



MOBILE TRAFFIC JAM DETECTION SYSTEM

Reliable control sections

The Nissen Guard provides a solution comparable to stationary systems. Up to four sensors reliably record the traffic density. The Nissen Guard can be easily installed, is characterised by its low energy consumption and can be supplied independently by means of solar modules or batteries.

Powerful central unit

The central unit continuously monitors software provided in a data centre. It processes the data transferred by the control sections and adapts the display sections to the traffic events in real time. This can prevent the risk of traffic jams and accidents and provide for an optimised traffic flow. The software is characterised by its intuitively operable user interface and its convenient project administration. Furthermore, scenes can be mapped one-to-one and, if necessary, can also be transmitted to traffic signs that are not stored on the display section (Over-the-Air).



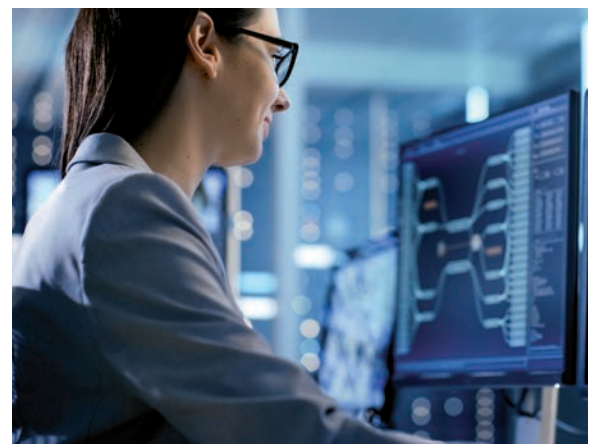
Optimum display sections

As display sections, the variable traffic signs from the proven Nissen VarioSign LED system are utilised. They can provide a dynamic representation of traffic signs and texts stored. A screen of special anti-reflective glass provides for maximum visibility, even in daylight. Furthermore, the VarioSign LED variable traffic signs comply with the requirements set out in European Standard EN 12966. Due to their modular design with SMD PCBs from Nissen's in-house production, display sections can be selected in different sizes. An additional advantage is the low energy consumption which allows for particularly long service times.



Professionally monitored

We offer you the monitoring required for the operation of a mobile traffic jam detection system in an operation centre with certified staff which is at your service 24/7. Our operation centre uses a contract data processor that meets all technical requirements such as redundant servers and a redundant online connection as well as a maximum response time of 45 minutes in the event of malfunctions.



GLOSSARY



Glossary

Display section (DS)

Two panels on the left-hand and right-hand lane
AU1.1 is the display section 1 on the left
AU1.2 is the display section 1 on the right

Automatic circuits

Circuits in the case of which individual signs or whole scenes are switched automatically in a sensor- or time-dependent fashion.

Mobile warning trailer (MWT)

Warning trailer serving to secure work sites and scenes of accidents. Also known as warning sign trailer.

Device

Term referring to a remote controllable or monitorable unit, e.g. LED variable traffic sign (VTS), MWT, warning system, CB warning system, traffic box (measuring unit), etc.

Site plan

The site plan is a graphical view in which the control and display sections can be represented in compliance with traffic regulations in the road section.

LED variable traffic signs

In contrast to the static traffic signs, LED variable traffic signs allow for a dynamic representation of almost any symbols and texts. They are often mounted to trailers (mobile LED warning signs) with warning lights that have a facility for lifting and lowering.

Level Of Service (LOS)

Calculated traffic jams of an MU

- 1 = free-flowing traffic
- 2 = traffic jam detection (slow-moving traffic)
- 3 = traffic jam

Traffic light system (TLS)

Mobile traffic light, also referred to as lighting system (LZA).

Client

Organisational unit representing a company. Clients can contain several projects and sub-projects.

Modem

Unit for the transmission of data and control commands from and to the device via the mobile network.

Control section (CS)

Traffic box with 1 to 4 sensors

Mobile traffic jam detection system (mSWA)

Combination of AUs and MUs, central unit and OPC for the automated warning and speed control at work sites in road traffic.

Operation centre (OC)

M-TI-compliant data centre for setting up, controlling and monitoring mobile traffic management systems (mobile traffic jam detection system, variable traffic sign). Redundantly mirrored servers and online connections as well as a permanent monitoring by staff (365 days a year, 24/7) are necessary.

Over-The-Air (OTA)

Circuits in the case of which transmission is not carried out by the control signal but the display graphics and, if necessary, also texts are created by the user and are directly transmitted to the variable traffic sign.

Picture editor

Program for the creation of images and image sequences for the variable traffic signs. Is in particular used for Over-The-Air circuits.

Program

A program in the LED variable traffic sign is an image or image sequence which is usually stored in the local library on the storage medium of a device.

Sensor

Measuring device which records data and transmits them via the traffic box.

Traffic box

Control section: device which serves to measure the traffic density and to which up to 4 sensors can be connected.

Scene

Grouping of LED variable traffic signs which are switched commonly and interdependently. Also referred to as an ad-hoc circuit.

Sign

Alternative designation of an LED variable traffic sign.

Advance warning lights

Flashing lights of the WL7 type with 300 mm diameter for advance warning in compliance with class L9H or L9MO3.

Traffic management sign (TMS)

Standardised trailer with variable traffic sign comprising two or three signs including advance warning lights.

Variable traffic sign (VTS)

Variable traffic sign which can be activated, changed, or deactivated if necessary.

Central unit

The central unit is a web-based software which

evaluates the data transmitted by the control sections, generates control commands to the display sections and documents display states. The central unit must be kept in a data centre (OC) that is permanently staffed (365 days a year, 24 hours per day) and provides monitoring and support in compliance with the EU standard contractual clauses. The data centre must agree to be a contractual data processor and comply with the corresponding regulations.

FAQ



FAQ

What is required for an approved mobile traffic jam detection system?

Parts of a mobile traffic jam detection system in compliance with M-TI 2015 are:

- LED variable traffic signs complying with M-TI. Parameters such as the technical version, size of the traffic signs, photometric requirements, the display of texts, etc. are defined there.
- Traffic jam sensors with automatic generation of the levels of service
- Central unit (TrafficManager) complying with regulations for controlling and monitoring the devices. Requirements of the M-TI are for instance the status display of the devices and location determination.
- Monitoring of the devices by means of an OPC complying with regulations, with a guaranteed annual availability of the devices of 99 %

In which way can devices that are already available (LED variable traffic signs, traffic jam sensor, etc.) be extended to a mobile traffic jam detection system?

The LED variable traffic signs and traffic jam sensors that are already available must be compatible with the TrafficManager. An ID indicating this compatibility of Nissen products can be found in the product catalogues. Furthermore, the devices already available must be equipped with a modem and the corresponding SIM card in order to ensure communication via the mobile network.

How long does it take to correct potential errors/failures?

The response time between the documentation of an error and the start of error correction is 45 minutes. The error correction process is documented with regard to its time and scope.

What can be represented via the TrafficManager?

All traffic signs stored on the storage medium of the variable traffic sign are retrieved and switched by the TrafficManager. Additionally, an integrated design editor is used to freely create simple images and texts. For more complex designs of images and texts, we recommend using the NiCo 2 Designer software which is included in the scope of supply.

How does communication between the devices and the TrafficManager work?

Communication between the devices and the server structure is carried out via GSM (Global System for Mobile Communication). This is the mobile radio standard of the second and third generation. The browser with the online application in return communicates with the server via HTML.

FAQ

Which encryption does the TrafficManager use?

The AES encryption (Advanced Encryption Standard) is utilised. Indicated by the URL (https). The AES encryption is considered as the common form of encryption and is for example also used by banks for the purpose of online banking.

Which web browsers are compatible with the TrafficManager?

The application works on all common and current terminal devices and web browsers. However, in order to ensure optimum handling of the application, Firefox and the Chrome browser are recommended.

Which assignment of rights can be set in the TrafficManager?

The user level provides three ways of regulating user access:

- Admin: can create/switch devices, create projects/subprojects, create scenes/site plans
- Operator: can switch devices, create projects/subprojects, create scenes/site plans
- Viewer: can only view projects/subprojects as well as scenes/site plans

In which way can I represent the location of the devices?

In order to represent the devices via Google Maps, a Google account with a stored API key is required. When the Google account has been linked with the TrafficManager, Google provides a free quota of calls per year to the user. This quota is usually sufficient for the user.

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