



TRANSPORT SOLUTIONS



Up-to-date Information

Up-to-date Information.

Wherever and whenever required.

In hectic railway stations or bus terminals up-to-date information at the right time and place is simply a must. A modern station without an efficient information display system providing high visibility travel information is totally unthinkable. Large screen displays guiding the passengers have become a necessity.

Today, also the passengers' expectation of travel experience has to be considered. Many stations have already optimised their infrastructure for retail offering a variety of shops jostling for the travellers' attention. Static advertising is gradually being substituted by digital large screen displays offering entirely new possibilities. A flexible mixture of sales promotion, video-clips and films is much more of an eye-catcher than posters - infotainment rather than just advertising - a new source of future profit growth for the system operators and a pleasant pastime for the passenger while waiting for their connection.

Mission

Mission.

CONRAC's challenge is to provide their customers with the system solutions best fitted for their individual requirements. This means the ideal display technology, size, format, resolution for the information to be communicated. This means smaller sizes for passenger guidance and platform information, mid-size for travel information or advertising, large screens for arrivals or departures, with the extra intelligence or an embedded controller if required. And this also means the design, colour, logo to suit the customers' concept.



Saint Nicolas Station / Belgium



Stavanger Station / Norway

Experience

Experience.

Founded in 1956 CONRAC has always provided innovative technology. Ever since the late 60's, CONRAC has been developing information display products for most demanding applications. From the first information boards, first information display systems, first microprocessor-based data terminals, the first high resolution CRT monitors to today's flat panel displays, CONRAC has at all times played a pioneering role in the transportation business. Tens of thousands of Public Displays in railway and airport installations worldwide speak for themselves. Especially those applications requiring special shieldings, a certain degree of ruggedisation and customisation have always been a CONRAC „speciality“.

Innovation

Innovation.

Thanks to an advanced R&D Department with unique expertise and a Product Management with global market knowledge, CONRAC always keeps a step ahead. Committed to technologically advanced and cost-effective display solutions, the company constantly improves existing products and develops new ones, using only the latest and most reliable technologies.

Reliability

Reliability.

All products are developed for 24/7 operation. The components and solutions have been designed and thoroughly tested for applications in the most demanding environments. Compliance with very strict quality regulations is monitored at all stages of the production process.

Extensive in-house test procedures ensure optimum performance and reliability. CONRAC is, of course, an ISO 9001 certified organisation.



Flat-screen production in Weikersheim



CONRAC headquarters, R&D and production

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Frankfurt/Main Station / Germany



Namur Station / Belgium



Zermatt Mountain Railway/ Switzerland



CONRAC is a leading supplier in the public transport market.

There are many reasons for this.

First there is customisation. The transportation market has its own special requirements. Most transportation organisations have their own design and CI regulations which have to be incorporated in the product development.

But in spite of everything, also the expense factor has to be considered. CONRAC's approach is to reduce the total cost of ownership. During all phases of development the target is a high-quality and durable product with low maintenance costs and incorporating the technology required for future uses.

24/7 Operation

Industrial solutions for 24/7 operation, designed and tested for continuous operation in a demanding environment, guaranteeing reliability, durability, a low failure ratio and thus a reduced cost of ownership. It goes without saying that CONRAC also offers long-term service and support.

Performance

Integrated controller. CONRAC flat-screen displays with integrated Graphic Engine Board are intelligent terminals. Designed for 24/7 operation, this embedded solution offers an extremely reliable platform in networked applications. For maximum safety, the real time operating system runs on a compact flash card, avoiding failures, viruses and hackers. Remote monitor control allows monitoring and control of display settings such as stand-by, brightness and contrast, but also information such as temperature, maintenance status, etc.

All displays are delivered with client display software including all licenses.

Internal video interface. The direct digital interface to the panel ensures superior image performance and efficient display control.

Availability

Long-term availability. Unlike in the consumer flat-screen business, professional applications require long-term availability of the products. CONRAC guarantees product availability and continuity even years after the first delivery on a form-fit-and-function basis.

Serviceability

Modular design and easy access. In busy railway and subway stations or bus terminals, quick and easy access to the products' major components for maintenance purposes is essential to guarantee high availability. All IP55 protected monitors offer a front access feature. Time is money!

Outdoor Housings

Ruggedized design. Extended temperature range, climate control and the appropriate IP protection ensure stable operation even in extreme environmental conditions. The robust aluminium housings are fire-retardant and vandal-proof.

Safety

Laminated safety glass with high efficiency anti-glare treatment, protecting the display from vandalism and ensuring the safety required in public areas. Furthermore, it allows cleaning without damaging the display panel. The anti-glare surface guarantees superior legibility from all angles.

Protection against tampering: no external controls to avoid unauthorized accidental or deliberate interference.

Flexibility

Landscape and portrait mode applications to suit all individual requirements.



Antwerp Station / Belgium



PROFESSIONAL OUTDOOR DISPLAYS.

For public transport applications, where 24/7 operation, utmost reliability and protection against vandalism, environmental effects like dust, moisture as well as extreme variations in temperature are necessary, CONRAC Outdoor Displays are the ideal choice.

Outdoor Displays

CONRAC offers a wide range of IP55 protected Outdoor Displays for public transport applications. The product portfolio covers all current screen sizes from small to extra large formats.

Due to the modular design of the products, many different configurations are possible:

- Outdoor Displays with IP55 or even IP65 housing
- Chassis-only versions for installation in existing housings etc.
- OEM versions

For indoor use Public Displays with IP20 housing are supplied.

The displays might even look the same, but the „inside“ can be completely different:

Outdoor Monitors for connection to standard PC systems or external controllers

CONRAC's professional Outdoor Displays in „monitor-only“ configuration are equipped with superior electronics offering state-of-the-art connectors, controls and functions. High-quality CONRAC signal processing boards make the most of the picture regardless of the signal source. Both PC and video performance are simply perfect.

Outdoor Displays with integrated controller for networked systems

CONRAC Outdoor Displays with integrated Graphic Engine Board are intelligent terminals. Designed for 24/7 operation, this embedded solution offers an extremely reliable platform in networked applications.

Remote monitor control allows monitoring and control of display settings such as on/off, stand-by, brightness and contrast, but also information such as temperature, maintenance status, etc.

The integrated controller facilitates landscape and portrait mode applications to suit all individual requirements.

A direct digital interface to the panel generates superior image performance without jitter, phase or scaling errors.

Different controller configurations can be realised:

For maximum safety, CONRAC offers their own real time operating system which protects against failures, viruses and hackers. This system runs on a compact flash card.

Alternatively, the integrated controller can be configured with Windows, Unix or Linux operating system.

If required, all displays are delivered with a client server software including all licenses.

For additional controller features there is the possibility to use Add-On Modules such as:

- WiFi Module for integration in a wireless network
- Video Rotator Module for real-time rotated video images for screens used in portrait mode
- TV-Tuner Module providing inputs for RF, S-video and CVBS signals
- HDTV Module providing support for the latest video formats



Munich Station / Germany

Zug Bus Terminal / Switzerland



Special Features

Special Features Outdoor Displays.

Flexible Housing Concept. Thanks to the modular design, various configurations can be realised: Single-sided and double-sided displays, a different number of integrated displays, additional track indication, integrated clock, etc.

Climate Control. Depending on the climatic conditions and the location - installation inside a station or outside - the displays can be equipped with a microprocessor controlled heating and cooling system.

Front Access Feature. All outdoor displays are front accessible for easy maintenance.

However, despite all different versions and configurations, when it comes to reliability, connectivity and those criteria important to all equipment used in public areas, they have a lot of features in common.

THE SOPHISTICATED SYSTEM.

Completing the range of transport-related equipment, CONRAC offers a sophisticated Information Display System scalable to any size of installation.

TransMAXCS®

Passenger Information Display System.

TransMAXCS® is a highly innovative and future-proof product, easily adaptable to new operational needs. System design in close co-operation with the customer ensures smooth operation and guarantees timely and reliable information of passengers and staff as well as trouble-free passenger handling.

TransMAXCS® controls all modern media e.g. WAP, SMS, etc. and offers full graphic and multimedia capabilities. The Page Editor and Page Configuration Tool which runs on each PC connected to the PIDS-Server allows easy import of new layouts.

Data handling is realised by standard database applications giving the customer the free choice. All interfaces are based on SQL or ODBC standards.

TransMAXCS®, CONRAC's information system offers state-of-the-art technology: Advanced features such as decentralised maintenance, remote status monitoring, wireless applications for operators, and many more.

For easy operation several optional software tools are available. Examples are:

- WebData applications allowing to view traffic information and look-up tables from the entire database of the PIDS
- DMU (Device Monitoring Utility) allows to view information displayed on the displays connected to the PIDS system.
- DaViS (Data Visualization Staff) intended to view traffic information, look-up tables, etc. The users can define the desktop layouts according to the individual requirements.

Hardware
Software
Installation
Service

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Flat-screen production in Weikersheim

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Makes your display last longer.

The typical requirements of public information systems, 24/7 operation and static images, are very demanding on the displays used. As a result of extensive R&D, decades of direct experience in the field and very close cooperation with key suppliers, CONRAC has implemented vital functions into their Public Display Series to guarantee trouble-free operation and to prolong lifetime.

All Public Displays:

c▼ALC
Ambient Light Control

Automatic adjustment of the brightness depending on surrounding light conditions, maximises the image quality, prolongs display lifetime while minimising power consumption.

c▼TCS
Temperature Control System

Active temperature control, monitors the heat level and controls the fans.

c▼DPR
Dynamic Pixel Refreshing

A special system driving the TFT cells avoids image sticking and increases display lifetime considerably.

c▼PXS
Pixel Shifting

Continuous shifting of the entire image in different directions prevents image sticking. At normal viewing distance, this is almost not visible. If required by the application, the shifting level can be adjusted manually.

c▼SPM
Soft Picture Mode

An intelligent scaling mechanism smooths out extreme contrast transitions. This process avoids the so called boundary line image sticking, which occurs at „sharp“ transitions (e.g. black to white). If required, the degree of „softening“ can be adjusted manually.

Monitor versions only:

c▼DNC
Dynamic Noise Control

Intelligent algorithms suppress the „noise“ typical for analog signals, while optimising image performance.

c▼DCC
Dynamic Contrast Control

A very complex technique allows incessant correction of both the backlight brightness and contrast of the TFT cells, resulting in a natural, very high-contrast image. Additionally, this results in a reduced power consumption.

c▼BWE
Black and White Expansion

Optimises the display of very small details. Particularly in dark areas, even the smallest details - not visible on conventional displays - can be displayed generating an extremely brilliant and high-contrast image.

c▼TMM
True Movie Mode

True Movie Mode uses special algorithms allowing film reproduction (DVDs) in amazing quality. This applies not only to commercial standard definition DVD material, but also to DVD films in HD 1080i (e.g. Blu-Ray).

References.

Railway Installations.

Austria over 60 installations, different locations
e.g. Vienna Station ■ Austrian Railway Control Centers
(for example Wels)

Belgium over 350 installations, different locations
e.g. Brussels (Gare du Midi) ■ Namur ■ Leuven ■ Braine le Comte ■
Saint Nicolas ■ Antwerp

Denmark over 50 installations, different locations
e.g. Copenhagen

France over 70 installations, different locations
e.g. Paris St. Lazare

Germany Augsburg ■ Bad Kreuznach ■ Betzdorf ■ Bonn-
Godesberg ■ Coburg ■ Cologne-Deutz ■ Duisburg ■ Duesseldorf
■ Elze ■ Frankental ■ Frankfurt/Main ■ Garmisch-Partenkirchen ■
Gerolstein ■ Hagenow-Land ■ Hamburg/Harburg ■ Herrenberg ■
Homburg ■ Horb ■ Kempten ■ Koblenz ■ Kreiensen ■ Lindau ■ Merzig
■ Muehldorf ■ Neumuenster ■ Neunkirchen ■ Neustadt ■ Oesterfeld
■ Pforzheim ■ Rottweil ■ Saarbruecken ■ Saarlouis ■ Salzwedel ■
Schweinfurt ■ Schwerin ■ Stendal-Uelzen ■ Stuttgart (Klettpassage)
■ Stuttgart (Stammstrecke) ■ Trier ■ Tuebingen ■ Tuttlingen ■
Wilhelmshaven ■ Wolfsburg ■ Worms

Norway over 50 installations, different locations
e.g. Stavanger ■ Nittedal ■ Gran

Switzerland over 80 installations, different locations
e.g. Zermatt Mountain Railway

Ukraine 4 installations
e.g. Kiew

Subway Installations.

Singapore over 130 installations, different locations
e.g. Subway (SMRT), Circle Line

Bus Stations or Terminals.

Colombia Bogota Bus Terminal
Software system including large screen displays
Switzerland Zug Bus Station

Extract only

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NR	AB	GF	STW	SS	STW	ABT	STW
206	17	04	1340			010	2000
206	12	03	11810	24-00		010	2000
206	12	08	1089	24-00		010	2000
206	13	01	1000	00-00		010	2000
206	13	04	1194	00-00		010	2000
206	13	04	1741	18-15		010	2000
206	14	14	1072	11		010	2000
206	15	10	1013	14-00		010	2000
206	15	11	1017	14-00		010	2000
206	15	11	1018	14-00		010	2000
206	15	11	1019	14-00		010	2000
206	15	11	1020	14-00		010	2000
206	15	11	1021	14-00		010	2000
206	15	11	1022	14-00		010	2000
206	15	11	1023	14-00		010	2000
206	15	11	1024	14-00		010	2000
206	15	11	1025	14-00		010	2000
206	15	11	1026	14-00		010	2000
206	15	11	1027	14-00		010	2000
206	15	11	1028	14-00		010	2000
206	15	11	1029	14-00		010	2000
206	15	11	1030	14-00		010	2000
206	15	11	1031	14-00		010	2000
206	15	11	1032	14-00		010	2000
206	15	11	1033	14-00		010	2000
206	15	11	1034	14-00		010	2000
206	15	11	1035	14-00		010	2000
206	15	11	1036	14-00		010	2000
206	15	11	1037	14-00		010	2000
206	15	11	1038	14-00		010	2000
206	15	11	1039	14-00		010	2000
206	15	11	1040	14-00		010	2000

Further Products.

Business Displays

Large screen displays for dynamic digital signage applications such as POS/POI/POW ■ stand-alone displays with integrated media-player ■ OEM versions



Public Displays

Large-screen displays for indoor applications ■ all sizes ■ monitor-only versions ■ with integrated controller for networked applications ■ OEM versions



Industrial Displays

Flat-screen displays for demanding industrial applications ■ cabinet, rack-/console-mount and chassis-only versions ■ special control concept ■ OEM versions



ATC/ATM Displays

Flat-screen displays for ATC/ATM applications ■ different diagonals and display formats ■ 2K x 2K displays ■ cabinet, rack-/console-mount and chassis-only versions ■ special control concept ■ OEM versions



Automotive Displays

Ruggedized flat-screen displays for most demanding applications, e.g. for mobile use ■ different diagonals and display formats ■ extended shock, vibration and temperature range ■ cabinet, rack-/console-mount and chassis-only versions ■ OEM versions



Ship Displays

Special flat-screen displays for radar, navigation and ECIDS applications ■ different diagonals and display formats ■ wideECIDS® MultiTask Monitors ■ cabinet, rack-/console-mount and chassis-only versions ■ wide dimming range ■ special control concept ■ OEM versions



 developed / designed / made in Germany

As an internationally operating company, CONRAC develops and produces High Performance Displays and Display Systems for professional and industrial applications.

We target OEM customers and project business in niche markets.

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Technical specification subject to change without prior notice.

GM 760.0128 - transportsolutions_rev01

