

# Large Display Technology



### Cylinder Block

Target	Actual	Trend
765	689	804

TUR357 OVERFLOW

1430	Linka Ford C1X	190906
Plán IO / smena	2500	Akt. IO / smena 1856
Trend IO / smena	↑	Trend IO / smena 4382
		NIO / smena 5300
Plán IO / hodina	6500	Akt. IO / hodina 5983
System C1X running		



# A clear advantage thanks to individual concepts

We realize individual, innovative visualization concepts thanks to excellent expert knowledge and identification with our customer's situation, as well as by offering the latest technological developments and state-of-the-art software solutions.

From our Grafenwoehr (Northern Bavaria) headquarters we deliver our products to satisfied – and consequently also successful – companies all over the world.

Through a close dialogue with our customers we guarantee a positive basis for innovative display technology in continuous use – both concerning technical and economical aspects.



We produce our modular large displays in any desired configuration and size. For all this specific solutions we are using standard system components.

Our displays can be integrated within almost any industrial areas and plants. They have been designed such a way that they can be easily upgraded or expanded. They can be connected to different systems, machines, components, networks and protocol structures without any problems.

Consequently, our customers are not limited when planning their own individual display. Worldwide, international, innovative concepts and projects proof our competence and efficiency.





# Safe and flexible... Large displays



Long reading distances...  
guarantee the transfer of information  
to a great number of people.

Our intelligent large displays...  
optimize communication  
between man and machine.

Work flows...  
become faster, more efficient and safer  
thanks to our display technology.

Work reactions and performance...  
are greatly improved by data  
that are always up-to-date.

Large  
Display showing...

- Production values
- Production data
- Operating status
- Procedure-specific data
- Error messages
- Operator prompts
- Quality-related information
- Checking instructions
- ... and much more...



Safe intervention in production processes...  
is possible at the right point in time.

Visible information and motivation...  
positioned exactly where it is required.





# Information exchange between man and machine

Вес стальнойовша 1538 т  
 Сталь в стальнойовше 165 мин  
 Вес промковша 225 т  
 Темп. в промковше 1230 °C  
 Скорость разлива 15 м/мин  
 Длина ручья 1276 м

Pota Ağırlığı 4573 Ton  
 Tandış Ağırlığı 5234 Ton  
 Tandış Sıcaklığı 2370 °C  
 Döküm Hızı S1 3794 m/min  
 Döküm Hızı S2 3740 m/min  
 Zaman 1458 hh:mm

**Customer intimacy:**  
 Our customers are the centre of all our considerations and activities.

**Advice:**  
 Our employees develop the optimum technical solution for your specific application, at economically favourable conditions.

**Development:**  
 Through efficient components that can be expanded at any time we do all we can to fulfill any requirements as to compatibility with already existing systems. Even in the long run, retrofitting or expansions can be realized without any problems.

**Production:**  
 All planning, development and production activities at our Grafenwoehr headquarters are realized by using the most state-of-the-art systems.

**Quality assurance:**  
 Strict control measures and very high quality standards.



General  
**PLC-compatible**  
**LED**  
**7-Segment**  
**large format**  
**display modules**  
 Data input BCD Code

Our numerical (7-segment) LED large format display modules are an ideal solution for integration into wiring cabinets, switchboards and consoles. They are user-integrated to form one universal large format display module for specific applications.

As various settings for the number of digits are available it is not necessary to cascade multiple single modules. Our concept supports single- and multi-digit installation options to reduce installation effort and ensure cost savings.

This modular design offers great flexibility at low cost for 60 mm (readability of up to 25 m) and 100 mm (readability of up to 40 m) displays.

## Maintenance-free

**LED** **small display**  
 with „no limit“  
**interfaces** DIN size 144 mm x 48 mm

Our numeric (7-segment) and alphanumeric (matrix) LED small display units are ideally suited for integration in switch cabinets, control panels and operator consoles. As well as many model-specific features, these products have the benefit of comprehensive data interfaces and the large character height of 20 mm or 18 mm.

and implementation costs. All our large and small display units can be very easily adapted to each other.

Uniformly lit LEDs provide a brilliant, rich contrast, optimum written image even from a large distance and high reading angle. The filter screen of the small display units is coated red in order to reduce or prevent errors due to the effect of external light. On the front side, the units are protected in accordance with protection type IP54; optionally according to IP65.

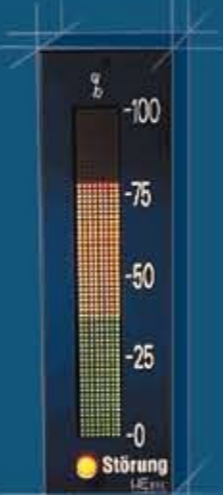
Designed and manufactured for many built-in applications. Our digital built-in displays are compact and practical to use and open up many different application areas and numerous data interfaces due to the integrated microcontroller. The consistently integrated model range with the same compact design is a benefit for reducing the hardware planning and the installation complexity.

A major benefit of the design is certainly that our small display units can be actuated in the same protocol structure as our large display units. This saves our customers additional programming



Numerical LED Panel Display „KAN6.20“	
Display technology:	LED 7-Segment, red
Digit height:	20 mm
Number of digits:	6
Power supply:	24VDC
Housing:	DIN Panel Mounting Housing
Protection class:	IP54 front (IP65 optional)
Operating temperature	0...+50°C
Available data inputs:	Impuls / Serial / Ethernet / Profibus / Profinet / Interbus / CAN / Modbus / DeviceNet / (BCD + Analog on request)

Alphanumeric LED Panel Display „KAT8.18“	
Display technology:	LED 5x7 Matrix/Pixel, red
Digit height:	18 mm
Number of digits:	8 (scrolling up to 80 signs)
Power supply:	24VDC
Housing:	DIN Panel Mounting Housing
Protection class:	IP54 front (IP65 optional)
Operating temperature	0...+50°C
Available data inputs:	Serial / Ethernet / Profibus / Profinet / Interbus / CAN / Modbus / DeviceNet





# Our individual Production Counter System

## Our information and motivation display system

A proven connection exists between information and motivation. Our large-format display systems integrate employees in the production process and have a positive impact on worker motivation, especially in manufacturing operations where workpiece throughput is high. Our large-format displays can be integrated in virtually any production application.

Our ProductionCounterSystem „PCS“ has been developed in its basics together with several production teams. It considers the circumstances and requirements of production. Specifically designed to boost worker motivation and performance by displaying up-to-date information comparing production goals with actual production status and trends. Displaying the production data creates a high acceptance of all persons involved and promotes the natural will to perform.

“PCS” is an intelligent man-machine-interface, providing virtual information about all process-related data. There virtually is no limit as to the number of lines, columns, figures or letters. Based on consequent modular design, the systems can be easily integrated into any industrial environment and connected with any type of machine or line.

Advantages of our PCS:

- Increase in productivity and quality improvement at simultaneous reduction in costs
- Constant informations about the actual production state
- Making easy of the production process
- Optimization of the production planning
- High flexibility in production
- High acceptance by all persons involved
- Fast amortization of the investment cost



Industry and customer solutions as well as mass-manufactured products – „all under one roof“, tailored to meet the needs of your tasks.



Clearly legible from high distance – comprehensive and discernible at a glance.



It cannot get more simple – innovative complete systems including PC software and connection to superordinate systems.



Visualization of motivating production statistics on the production floor – directly where they are used and needed.



Employee Information = Motivation



# High Quality

# TFT Displays

Large and brilliant images are uniquely compelling. We offer an especially high-performance range of professional monitors for all areas of application – whether in traditional environments, places with oil, dust and smoke, or even outdoors in all conditions, including rain, snow and extreme temperatures from -20 °C to +45 °C. High quality components and materials combined with sophisticated solutions designed down to the smallest detail translate into our uncompromising quality.

- **Weatherproof**  
LCD monitors for all indoor and outdoor installations subject to extreme conditions.
- **Robust**  
Tough LCD monitors which can withstand contact with oil, smoke and dust.
- **Standard**  
Reliable LCD monitors for digital advertising and information systems, lasting impressions and memorable moments.

## Installations

- Designed for 24h continuous operation
- Variable installations; e.g. for
  - industrial applications in rough longterm operation
  - visitor greetings
  - company and product presentation
  - Digital Signage

## Interfaces

- DVI, VGA
- RS232
- Video, Audio
- Components
- Digital Signage, IPC



## Digital Signage – action pictures in (audio-)visual information systems

## Digital Signage – for modern Marketing and Industry

We help you, to find an adapt to your marketing and communication strategy successful Digital Signage System – with LCD screens and with LED multimedia displays. An integral concept for maximizing value.

## The Power of Media

Attract the attention of your target audience with the power of captivating images, pictures and trailers.

Using available high quality graphic content we build affordable and effective **Motion Clips**.

**Image Trailers** make a lasting impression of your message in the minds of consumers, employees, or other target groups.

**Product Trailers** convey the qualities and features of your products, services, and special offers with particular emotion and conviction.

**Dynamic Content** such as news from your field of business or the current company stock prices – adaptable to fit your current target audience – make your display program more attractive.

A **News Ticker** allows you to insert important news, updates or additional product information in combination with every content.

## Software for digital advertising and information systems

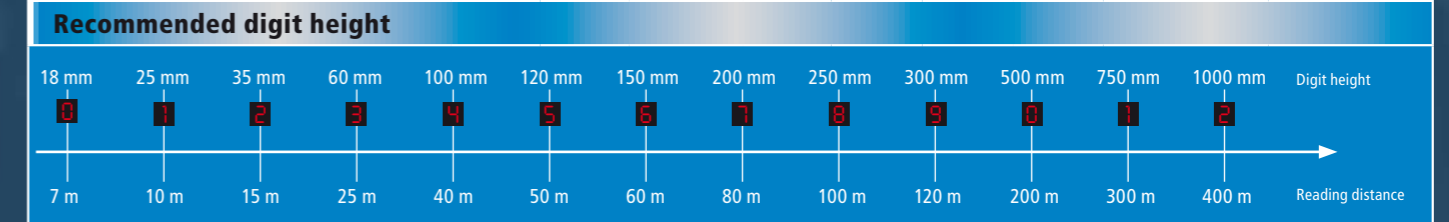
Our professional Software for digital information systems is a real all-round talent in marketing – as well as in industrial applications. In connection with electronic playback screens and LED multimedia systems the software presents flexible, variably applicable solutions that are leaders in the current market. The reason for this success is the versatility of the software: whether it is used as a control system, a means of communication, or a presentation and information platform, the software has an impressive array of applications.

Diagonal in inches	Aspect Ratio	Contrast	Viewing angle (h/v)
15	4:3	700:1	150°/135°
17	5:4	1000:1	160°/160°
19	5:4	1000:1	160°/160°
20	4:3	500:1	160°/120°
24	16:10	1000:1	160°/160°
26	16:9	1000:1	178°/178°
32	16:9	1500:1	176°/176°
42	16:9	1500:1	178°/178°
52	16:9	1500:1	178°/178°

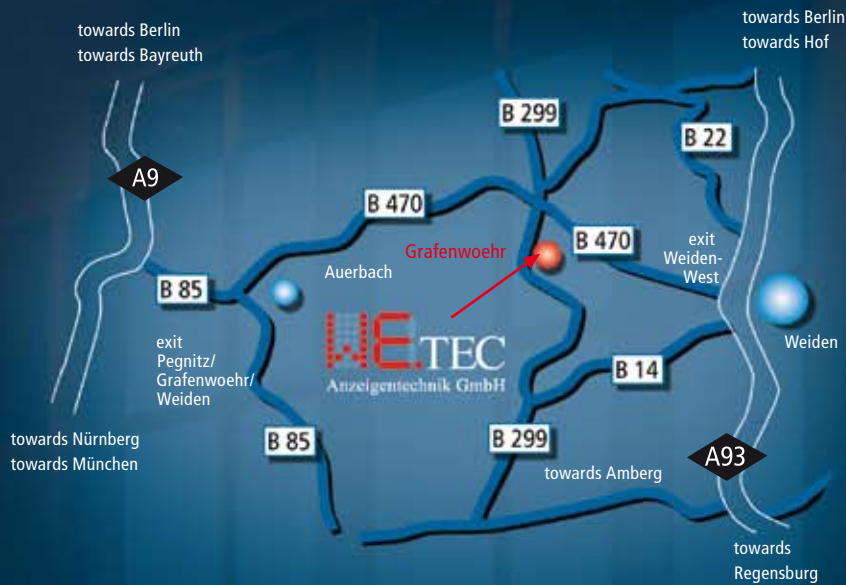
(State of January 2009)

# Product Overview Large Displays

Representation	Numerical				Alphanumerical			Bargraph	
Recommended installation	Indoor	Outdoor	Outdoor	Outdoor	Indoor	Outdoor	Outdoor	Indoor	Outdoor
Technology	LED	LED	Electro-magnetic	LCD	LED	LED	LCD	LED	LED
Digit height in mm	25, 60, 100, 150, 200, 250, 300, 500, 750, 1000	60, 100, 150, 200, 250, 300, 500, 750, 1000	105, 160, 250, 305, 460, 590, 1000	22 up to 300	18, 35, 60, 100, 120, 240, 360	60, 120, 240, 360	22 up to 300	any resolution	any resolution
Characteristics									
Readability one-sided / multi-sided	•	•	•	•	•	•	•	•	•
Line number 1...n	•	•	•	•	•	•	•	any resolution	any resolution
Digit number 1...n	•	•	•	•	•	•	•	any resolution	any resolution
Digit one color	•	•	•	•	•	•	•	•	•
Digit multicolor switchable	•	•	•	•	•	•	•	•	•
Housing material sheet-steel / stainless steel / aluminium	•	•	•	•	•	•	•	•	•
Housing protection class IP54 / IP65	•	•	•	•	•	•	•	•	•
Housing color according to requirements	•	•	•	•	•	•	•	•	•
Housing fastening according to requirements	•	•	•	•	•	•	•	•	•
Housing labeling according to requirements	•	•	•	•	•	•	•	•	•
Temperature range 0... +50°C	•	•	•	•	•	•	•	•	•
Temperature range -25... +60°C	•	•	•	•	•	•	•	•	•
Supply voltage 24VDC / 90...264VAC	•	•	•	•	•	•	•	•	•
CE-conformity	•	•	•	•	•	•	•	•	•
Realization according to customer requirements	•	•	•	•	•	•	•	•	•
Data inputs									
BCD	•	•	•	•	(binary)	(binary)	(binary)		
Analog	•	•	•	•				•	•
Pulse input (counting input), e.g. „count per unit“	•	•	•	•				•	•
Pulse measurement (time unit), e.g. „unit per minute“	•	•	•	•				•	•
Serial interface RS232, RS485, RS422, TTY	•	•	•	•	•	•	•	•	•
Ethernet TCP / IP (+ wireless)	•	•	•	•	•	•	•	•	•
Ethernet IP	•	•	•	•	•	•	•	•	•
Ethernet FTP	•	•	•	•	•	•	•	•	•
Ethernet Powerlink	•	•	•	•	•	•	•	•	•
LonWorks	•	•	•	•	•	•	•	•	•
Profinet	•	•	•	•	•	•	•	•	•
Profibus-DP	•	•	•	•	•	•	•	•	•
Interbus	•	•	•	•	•	•	•	•	•
Modbus IP	•	•	•	•	•	•	•	•	•
Modbus RTU	•	•	•	•	•	•	•	•	•
CANopen	•	•	•	•	•	•	•	•	•
DeviceNet	•	•	•	•	•	•	•	•	•
MPI	•	•	•	•	•	•	•	•	•
AS-Interface	•	•	•	•	•	•	•	•	•
Radio data transmission, Wireless	•	•	•	•	•	•	•	•	•
Temperature sensor (e.g. PT100,...)	•	•	•	•				•	•
Input device / key-pad	•	•	•	•				•	•
PC-Software	•	•	•	•	•	•	•	•	•
Integrated text memory					•	•	•		
Radio controlled clock DCF 77 / GPS	•	•	•	•	•	•	•	•	•
Realization ref. to customer requirements	•	•	•	•	•	•	•	•	•



This product overview can change because of continual development and innovation of our range of products. Constantly, you can see our actual product overview in our internet presentation: [www.wetec-online.com](http://www.wetec-online.com)



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(State of February 2009)

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