

HUMAN MACHINE INTERFACES



CONTENTS

Philosophy	3
Multi-touch Operating Panels	4 – 8
Operating Panels with Resistive Touch Screen	9
HMIs in Two or More CPU Bundle	10 – 11
Control Panels	12 – 13
Mobile Panels	14 – 15
Visualization Software LASAL SCREEN	16 – 17
HMIs Sorted by Size	18 – 25
Overview Matrix	26 – 27



For the human-machine interface, the following applies: it should be modern, clear and above all, user-friendly.

HMI PHILOSOPHY

Depending on the scope and complexity of your application, you can choose between operating, control and mobile panels – naturally, with different display sizes.

In view of networked, intelligent factories, we focus on flexible two and multi-CPU solutions. Meaning a separation between visualization, sequence and motion control. Our operating panels with single or multi-touch screen form, combined with the compact S-DIAS control and I/O system, an efficient, high-performance solution for adaptive production machines and systems 4.0.



The all-in-one control panels with integrated control and single touch screen are an economic alternative for medium-complexity applications.

Our mobile panels provide you with high freedom of movement for operating and monitoring directly on-site – with cable or wirelessly.

All SIGMATEK HMIs are produced in Austria. Before our panels are delivered, they are fully tested to ensure the highest quality.

GET IN MULTI-TOUCH

OPERATING COMFORT MEETS "ZEITGEIST"

The ETT multi-touch operating panels give machines and systems a modern face and enable smart operating concepts, which provide a positive experience.

In the new multi-touch HMIs from SIG-MATEK, projective capacitive touch technology (PCT) is used, by which the sensors are protected on the back of the robust, solid glass front (IP65 protection).

The projective capacitive touch technology enables intuitive operation with multi-finger input, which can be used for more Safety in handling machines and equipment. For example, when two buttons must be pressed at the same time. Input is even possible with thin gloves.

Wide Screen: Everything in View

For demanding and modern visualizations, the ETT widescreen HMIs with multi-touch display are the right choice. The wide-screen format provides great clarity and freedom when configuring operating elements and contents. Various information can be structured on the displays and shown in high resolution. The thin HMIs

are available in five display sizes from 10.1 to 21.5 inches (full HD). Whether in vertical or horizontal format – the ETT panels are equipped for any situation.

Highest Flexibility

The modular construction allows problem-free adaptation to your individual wishes. The ETT operating panels can be optionally equipped with an attachable CPU or HMI-Link unit.

The CPU unit with EDGE2 Technology dual-core processors have, depending on the model, 1 to 2 GB of internal program and data memory (DDR3 RAM) and 512 MB to 16 GB microSD memory. 2x Ethernet, 1x USB 2.0, 1x USB-OTG are standard integrated features.

The ETT panels with widescreen display provide great clarity.



MODERN

projective capacitive multi-touch (PCT technology), wide screen

FLEXIBLE

with an attachable CPU or HMI-Link unit

OPEN

simple system integration with
2x Ethernet, 1x USB 2.0, 1x USB-OTG,
OPC UA connectivity

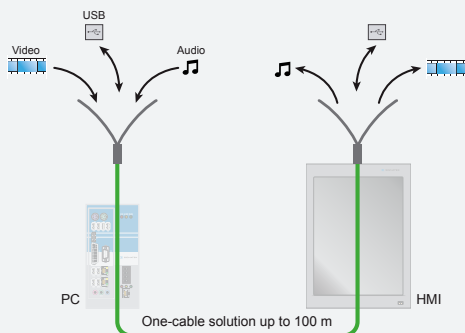
With the HMI-Link unit, the operating panel can be located up to 100 m away from the control cabinet PC.

ETT 1034	10.1 inches	1280 x 800 px
ETT 1234	12.1 inches	1280 x 800 px
ETT 1534	15.6 inches	1366 x 768 px
ETT 1834	18.5 inches	1366 x 768 px
ETT 2134	21.5 inches	1920 x 1080 px



OPC UA

All SIGMA TEK operating panels with a processor support OPC UA communication. The OPC UA server, as well as the client function can be used to connect a higher-level system or exchange data with controls from third-party manufacturers.



HMI-LINK: REMOTE SOLUTIONS FOR UP TO 100 M

One cable, more power and long distances – those are the advantages of HMI-Link technology, which was developed for remote solutions. With a standard Cat5e or Cat6 cable, video (Full HD), audio and USB signals can be transmitted up to 100 meters between operating panels and the industrial PCs from the 400 series free of loss.

HMI-Link is based on a pure hardware solution and is operating system-independent. The HMI-Link panels have no internal main processor and are therefore more mechanically robust and economic. A possible increase of computing power occurs in the control unit in the cabinet.



HOT FACTS

MODERN

projective capacitive multi-touch (PCT technology)

OPEN

with standard interfaces such as Ethernet, CAN or USB, as well as OPC UA connectivity

POWERFUL

with EDGE2 Technology dual-core processor



MULTI-TOUCH IN 4:3 FORMAT

MODERN AND WITH ADDED VALUE

With the high-performance HMIs in 4:3 format, demanding visualization tasks can be implemented comfortably and efficiently.

The ETT multi-touch panels in classic 4:3 format enable intuitive gesture and multi-finger operation.

Equipped with an ARM-based EDGE2 Technology dual-core processor, the ETT panels provide high performance with low power usage and do not require a cooling fan. 512 MB of DDR RAM for internal program and data storage, a 512-MB microSD memory for recipe and alarm management, data logging, as well as a 3D graphic accelerator are included in the standard configuration.

The multi-touch HMIs therefore cut a brilliant figure even with complex operating interfaces. Multi-finger input is even possible with thin gloves.

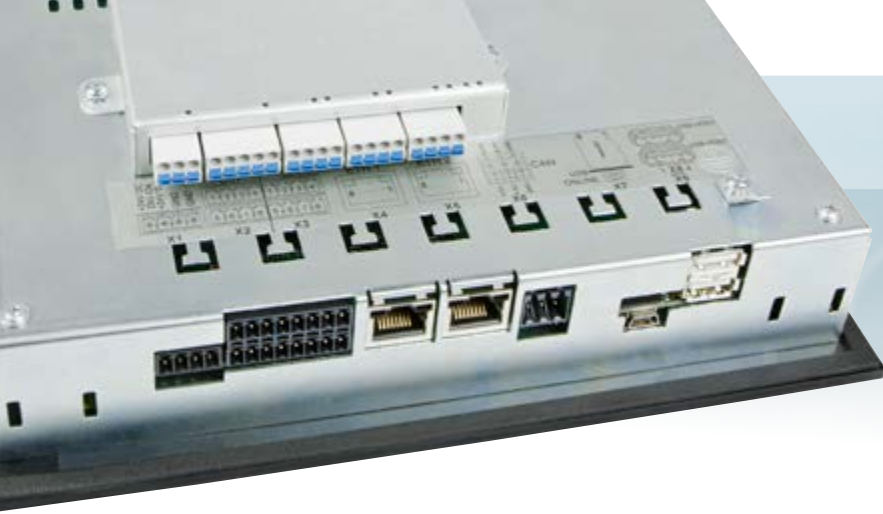
Streamlined

Currently there are five ETT display sizes in 4:3 format – from 8.4 to 19 inches. Thinly constructed with an installation depth of only 48 mm, the panels can be mounted directly on the machine, an operating console or integrated into the control cabinet.

ETT 0833	8.4 inches	800 x 600 px
ETT 1033	10.4 inches	1024 x 768 px
ETT 1233	12.1 inches	1024 x 768 px
ETT 1533	15 inches	1024 x 768 px
ETT 1933	19 inches	1280 x 1024 px

The ETT panels with optional logo-backlighting give your machines a modern look.

The ETT multi-touch panels make an impression with industrial PCT technology and great color brilliance. They are the right choice for demanding, modern visualization concepts.



With the ETT panels, the interfaces are located on the bottom. The Safety Input Box SIB 061, with 6 digital Safety inputs for decentralized reading of up to 3 command and signaling devices (2-channel), can be simply mounted onto the back of the ETT.

🔌 ETTs Easily Find a Connection

The interfaces are selected to ensure that the HMIs fit in practically any machine and system configuration: 2x Ethernet, 2x USB 2.0, 1x USB-OTG (On-the-Go) and 1x CAN-Bus. 8 digital in and outputs each are also on board, which can be used for command and signaling devices such as signal towers and operating mode switches.

💻 Software Speaks Multi-touch

The ETT panels are delivered with a Linux-based real-time operating system and the object-oriented development tool LASAL, which is well equipped for the creation of intuitive multi-touch applications.

LOGO BACKLIGHTING WITH ADDED VALUE



The ETT multi-touch panels in 4:3 format have an elegant frameless design. Optionally, it is possible to laser on your company logo and display it with color backlighting. The panel can therefore be perfectly integrated into the corporate design of the machine or system. The logo backlighting can be activated via the application in any color (RGB).

An application-specific function can be created to make the backlit logo blink or display in a different color in the event of an error – a smart distinguishing feature with added value.

◀ The optional logo backlighting can be set in any color via the software.

OUR CLASSICS

OPERATING PANELS WITH RESISTIVE TOUCH SCREENS

We offer a broad spectrum of classic HMI. While developing our operating panels, we focused on a compact design and usability.

The broad selection of our operating panels, which are always equipped with high-resolution, resistive TFT color touch screens range from 3.5-inch small format to 19 inches in portrait format. Interfaces such as Ethernet, CAN, USB, HMI-Link, display port and RS232 ensure that the operating panels find the right connection.

Comfortable Extras

For extensive visualization tasks, operating panels with wide screen and EDGE2 Technology processors are available that provide the user with extra operating com-

fort. All panels are, of course, fanless and generally wear-free.

For special environmental conditions and industry-specific requirements (food processing and pharmaceutical industry), the right solution is also available. Custom-specific panel configurations are possible – from special front foils to individual HMI solutions.



HOT FACTS

VERSATILITY

in sizes and interfaces

COMFORTABLE

simple screen design with the all-in-one engineering tool LASAL

ADAPTABLE

the right operating panel for any task – customer-specific configurations also possible

TWO AND MULTI-CPU SOLUTIONS

FIT FOR THE CHALLENGE OF INDUSTRY 4.0

With Smart Factories and Industry 4.0 in sight, we focus – especially for complex applications – on modular, decentralized control solutions that make your machines future-proof.

With a single-CPU solution, the danger exists that in the course of its life cycle, the CPU may reach its performance limits as application are expanded. Through a clean separation of sequence control and visualization, you are holding reins.

Modular into the Future

With modular, decentralized automation solutions, each function unit performs exactly the task for which it was intended. The computing power can be scaled as required, the system can be flexibly expanded and adapted to new requirements.

In SIGMATEK solutions, economic ARM-based processors are used so that the price of the multi-CPU solution is comparable to that of a single-CPU solution and superior in terms of flexibility. Multi-CPU systems ensure that the automation process runs smoothly, even when the operating device might fail. Modular, decentralized solutions enable flexible, application-specific configuration – and that makes your applications fit for Industry 4.0.

The LASAL Machine Manager has the data flow for multi-CPU concepts well in hand.

Software as a Success Factor

For modern automation systems, consistent software engineering is a must. LASAL, our object-oriented engineering tool, combines the most modern programming technology with high efficiency and supports the OPC UA communication protocol. Manufacturer and platform-independent data exchange in an intelligent control network of machines and systems is therewith ensured.

Saves Time and Energy

Object orientation simplifies the modularization and reusability of the software enormously and provides maximum clarity. The work of creating the software – also for software maintenance especially – is minimized. This is an essential factor, since the complexity of applications is continuous-



FLEXIBLE

computing power can be scaled and expanded specific to requirements of the application

OPEN

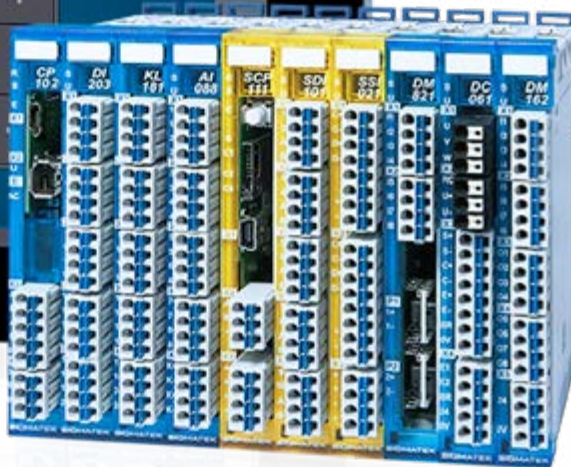
manufacturer and platform-independent data exchange via OPC UA

MODULAR BUT FULLY INTEGRATED

one software suite for all automation tasks



◀ A Strong Team:
The ETT multi-touch operating panels, in combination with the modular, thin control and I/O system S-DIAS. The system communicates with 100 Mbits/s.



ly increasing and production machines or systems are in use for over 10 years and therewith, the software as well.

Data Flow Redefined

If several distributed machines and system components should interact with one another, the data flow between the networked control intelligences must be perfectly managed – vertically, as well as horizontally. In the LASAL engineering environment, the "Machine Manager" is therefore responsible. It enables the clearly organized display of individual software projects in a machine or system and regulates the communication of dis-

tributed intelligences: Who can exchange which data with whom.

Data exchange with external installation components and the connection of managing systems can also be clearly implemented with the help of the Machine Manager. This reduces the work for initial start-up and handling, as well as simplifies the implementation of adaptive production strategies.

HOT FACTS

ECONOMIC

control and visualization combined in one device

EFFICIENT

several interfaces, often 8 I/Os already integrated, maintenance-free

SIMPLE

one engineering tool for control and visualization



CONTROL PANELS

CONTROL CPU IS ON BOARD

The ETV control panels are compact all-rounders. They save space in the cabinet, since the control is integrated in the HMI and can be comfortably programmed.

Control, visualization and operation in one thin device – the all-in-one control panels with integrated CPU and resistive color touch screen are an efficient and economical solution for medium-complexity applications. With all-in-one panels of the ETV series as a central control unit, flexible expansion of the application is limited.

With our fanless ETV control panels, low-loss EDGE Technology processors (800 MHz) are used and on board per 8 I/Os. The all-in-one panels are available with 5.7, 8.4 and 12.1-inch touch screen diagonals.

Through the integrated real-time Ethernet VARAN interface, very fast data transfer is ensured. Our control panels have numerous standard interfaces such as Ethernet, CAN bus and USB, which are located at the bottom and enable comfortable integration into the machine architecture.

Consistent Engineering

For programming and configuration, a consistent engineering tool is provided with LASAL that simplifies the development of applications.



HOT FACTS

OPERATING FREEDOM

with cable or wireless (WLAN)

WORK FATIGUE-FREE

ergonomic design and
low weight (950 – 1,500 g)

RELIABLE OPERATION

Safety elements integrated



MOBILE PANELS

FREEDOM DIRECTLY ON-SITE



If operating and monitoring demands mobility, our handheld operating panels are the right choice.

Equipped with an 8.4, 10.1 or 10.4-inch color touch display, the mobile HMIs offer the ability to intervene directly on site. The compact panels with their robust housing concept are available in different configurations.

■ **HBG panels:** for classic operating and monitoring with integrated HMI-Link (loss-free data transfer up to a 100 m distance).

■ **HGT panels:** are equipped with EDGE2 Technology processor and interfaces such as VARAN, Ethernet and USB.

Both panel series have a 3-stage confirmation button, emergency stop button and key switch, so that nothing stands in

the way of the safe operation of robots, machines or systems.

🔗 Innovative: With WLAN & Safety

New to the portfolio, is the HGW 1033. The wireless panel with a 10.1-inch multi-touch screen brings a new measure of operating freedom. It is equipped with an EDGE2 Technology processor and despite the integrated battery pack, weighs only 1,500 g. Additionally, Safety functions are integrated. Safety-relevant data is also transmitted via radio signal (available Q3/2018).

Light and with an ergonomically designed grip, all our mobile HMIs fit well in the hand – for left-handers as well as right-handers.

◀ The wireless operating panel HGW 1033 with a multi-touch screen redefines operating freedom.

VISUALIZATION TOOL LASAL SCREEN

INTEGRATED, MODERN AND USER-FRIENDLY



COMFORTABLE
extensive graphic library

EFFICIENT
direct access to variables,
visualization under Windows, alarm,
event and recipe management

**ANY NUMBER
OF LANGUAGES**
in one project, input of text
information in ASCII and Unicode



STRONG VISUALIZATION

The HMI tool LASAL SCREEN is a part of the object-oriented engineering environment LASAL. To create attractive visualizations, no knowledge of programming languages is required.

Pre-constructed design templates and versatile operating, graphic and design elements enable you to quickly create your visualization in the corporate design.

Graphics and project components can be easily imported or exported. Integrated features such as alarm and event management, trend display, text and recipe management, as well as language and unit conversion provide great comfort.

LASAL SCREEN supports the most varying resolutions of SIGMATEK HMIs.

HMI PARADE

FROM 3.5 TO 23.8 INCHES



The TT 1533 is a 15-inch multi-touch operating panel for the swing arm mount.



The operating panel TAE 2343 with HMI-Link technology has a 23.8-inch multi-touch screen in portrait format.

An optional back-lightable logo gives the multi-touch ETTs in 4:3 format a unique touch. You can stage your corporate design perfectly.



For simple applications, all-in-one control panels from the ETV series are available. Small panels for operating and monitoring are already available from 3.5 inches.



3.5 INCHES

PRODUCT NAME	ETT 312 Operating Panel	ETT 352 Operating Panel	ETT 353 Operating Panel
TOUCH	resistive	resistive	resistive
PROCESSOR	–	–	–
INTERFACES	1x CAN	1x CAN	1x CAN
RESOLUTION	320 x 240 pixels	320 x 240 pixels	320 x 240 pixels
FRONT PROTECTION TYPE	IP65	IP30	IP54
FRONT MATERIAL	3 mm anodized aluminium	plastic	plastic
I/Os	–	–	–
SPECIALS	–	–	–
DIMENSIONS (WxHxD)	104 x 100 x 38 mm	93 x 93 x 12 mm	110 x 157 x 59 mm
ARTICLE NUMBER	01-230-312	01-230-352-1	01-230-353



5.7 INCHES

PRODUCT NAME	ETV 0551 Control Panel	ETV 0552 Control Panel	ETV 0555 Control Panel
TOUCH	resistive	resistive	resistive
PROCESSOR	EDGE Technology (1x 800 MHz)	EDGE Technology (1x 800 MHz)	EDGE Technology (1x 800 MHz)
INTERFACES	1x Ethernet, 1x VARAN, 1x CAN, 2x USB 2.0, 1x USB 1.1	1x Ethernet, 1x VARAN, 1x CAN, 1x USB 2.0, 1x USB 1.1	1x Ethernet, 1x VARAN, 1x CAN, 2x USB 2.0, 1x USB 1.1
RESOLUTION	640 x 480 pixels	640 x 480 pixels	640 x 480 pixels
FRONT PROTECTION TYPE	IP54	IP65	IP54
FRONT MATERIAL	3.5 mm anodized aluminium	3.5 mm anodized aluminium	3.5 mm anodized aluminium
I/Os	8/8	8/8	8/8
SPECIALS	–	–	–
DIMENSIONS (WxHxD)	180 x 135 x 40 mm	180 x 135 x 40 mm	180 x 135 x 40 mm
ARTICLE NUMBER	12-230-0551	12-230-0552	12-230-0555



7 INCHES

PRODUCT NAME	ETT 731 Operating Panel	ETT 732 Operating Panel	ETT 771 Operating Panel
TOUCH	resistive	capacitive (multi-touch PCT)	resistive
PROCESSOR	EDGE2 Technology (1x 800 MHz)	EDGE2 Technology (1x 800 MHz)	EDGE2 Technology (1x 800 MHz)
INTERFACES	1x Ethernet, 2x CAN, 2x USB 2.0, 1x RS232	1x Ethernet, 2x CAN, 1x USB 2.0, 1x RS232	1x Ethernet, 1x CAN, 1x USB-OTG, 1x RS232, 1x RS485/Modbus RTU
RESOLUTION	800 x 480 pixels	800 x 480 pixels	800 x 480 pixels
FRONT PROTECTION TYPE	IP54	IP54	IP54
FRONT MATERIAL	3 mm aluminium, black anodized	4 mm aluminium, 1 mm hardened glass front with black frame	3 mm plastic
I/Os	–	–	–
SPECIALS	wide screen	wide screen	wide screen, USB-OTG for servicing purposes
DIMENSIONS (WxHxD)	180 x 135 x 41 mm	184 x 139 x 42 mm	180 x 135 x 50 mm
ARTICLE NUMBER	01-230-731	01-230-732	01-230-771



8.4 INCHES

PRODUCT NAME	ETT 0833 Operating Panel	HBG 0811 Mobile Operating Panel	ETV 0851 Control Panel
TOUCH	capacitive (multi-touch PCT)	resistive	resistive
PROCESSOR	EDGE2 Technology (2x 800 MHz)	–	EDGE Technology (1x 800 MHz)
INTERFACES	2x Ethernet, 1x CAN, 2x USB 2.0, 1x USB-OTG	1x USB 2.0, 1x HMI-Link	1x Ethernet, 1x VARAN, 1x CAN, 2x USB 2.0, 1x USB 1.1
RESOLUTION	800 x 600 pixels	800 x 600 pixels	800 x 600 pixels
FRONT PROTECTION TYPE	IP65	IP54	IP54
FRONT MATERIAL	4 mm glass with black frame	PC/ASA	3.5 mm anodized aluminium
I/Os	8/8	–	8/8
SPECIALS	optional logo backlighting	emergency stop, confirmation button, key switch	–
DIMENSIONS (WxHxD)	230 x 200 x 46 mm	217 x 188 x 72 mm	240 x 200 x 41 mm
ARTICLE NUMBER	01-230-0833	12-245-0811	12-230-0851



PRODUCT NAME	ETV 0851-I Control Panel	ETV 0855 Control Panel	HGT 835 Mobile Control Panel
TOUCH	resistive	resistive	resistive
PROCESSOR	EDGE Technology (1x 800 MHz)	EDGE Technology (1x 800 MHz)	EDGE2 Technology (2x 800 MHz)
INTERFACES	1x Ethernet, 1x VARAN, 1x CAN, 1x USB 2.0, 1x USB 1.1	1x Ethernet, 1x VARAN, 1x CAN, 2x USB 2.0, 1x USB 1.1	1x Ethernet, 1x VARAN, 1x USB 2.0
RESOLUTION	800 x 600 pixels	800 x 600 pixels	800 x 600 pixels
FRONT PROTECTION TYPE	IP65	IP54	IP54
FRONT MATERIAL	3.5 mm anodized aluminium	3.5 mm anodized aluminium	PC/ASA
I/Os	8/8	8/8	–
SPECIALS	–	–	emergency stop, confirmation button, key switch
DIMENSIONS (WxHxD)	240 x 200 x 41 mm	240 x 200 x 41 mm	217 x 188 x 72 mm
ARTICLE NUMBER	12-230-0851-I	12-230-0855	01-245-835



NEW

10.1 INCHES

PRODUCT NAME	HGT 1051 Mobile Operating Panel	HGW 1033** Mobile WLAN Operating Panel	ETT 1034* Operating Panel
TOUCH	capacitive (multi-touch PCT)	capacitive (multi-touch PCT)	capacitive (multi-touch PCT)
PROCESSOR	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)
INTERFACES	2x Ethernet, 1x USB 2.0	1x USB 2.0 Type C DRP, 1x USB 2.0	2x Ethernet, 1x USB 2.0, 1x USB-OTG
RESOLUTION	800 x 1280 pixels	800 x 1280 pixels	1280 x 800 pixels
FRONT PROTECTION TYPE	IP54	IP54	IP65
FRONT MATERIAL	PC/ASA	PC/ASA	glass/aluminium, black anodized
I/Os	–	–	–
SPECIALS	emergency stop, confirmation button, key switch	emergency stop, confirmation button, key switch	wide screen
DIMENSIONS (WxHxD)	226 x 264 x 76 mm	226 x 264 x 76 mm	271 x 180 x 47 mm
ARTICLE NUMBER	01-245-1051	01-246-1033-3	01-230-1034

* Available starting in Q2/2018, subject to technical changes

** Available starting in Q3/2018, subject to technical changes



10.4 INCHES

PRODUCT NAME	HBG 1011 Mobile Operating Panel	HGT 1035 Mobile Control Panel	ETT 1033 Operating Panel
TOUCH	resistive	resistive	capacitive (multi-touch PCT)
PROCESSOR	–	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)
INTERFACES	1x USB 2.0, 1x HMI-Link	1x Ethernet, 1x VARAN, 1x USB 2.0	2x Ethernet, 1x CAN, 2x USB 2.0, 1x USB-OTG
RESOLUTION	1024 x 768 pixels	1024 x 768 pixels	1024 x 768 pixels
FRONT PROTECTION TYPE	IP54	IP54	IP65
FRONT MATERIAL	PC/ASA	PC/ASA	4 mm glass with black frame
I/Os	–	–	8/8
SPECIALS	emergency stop, confirmation button, key switch	emergency stop, confirmation button, key switch	optional logo backlighting
DIMENSIONS (WxHxD)	264 x 226 x 73 mm	264 x 226 x 73 mm	279 x 233 x 49 mm
ARTICLE NUMBER	12-245-1011	01-245-1035	01-230-1033



NEW

12.1 INCHES

PRODUCT NAME	ETT 1233 Operating Panel	ETV 1251 Control Panel	ETT 1234* Operating Panel
TOUCH	capacitive (multi-touch PCT)	resistive	capacitive (multi-touch PCT)
PROCESSOR	EDGE2 Technology (2x 800 MHz)	EDGE Technology (1x 800 MHz)	EDGE2 Technology (2x 800 MHz)
INTERFACES	2x Ethernet, 1x CAN, 2x USB 2.0, 1x USB-OTG	1x Ethernet, 1x VARAN, 1x CAN, 2x USB 2.0, 1x USB 1.1	2x Ethernet, 1x USB 2.0, 1x USB-OTG
RESOLUTION	1024 x 768 pixels	800 x 600 pixels	1280 x 800 pixels
FRONT PROTECTION TYPE	IP65	IP54	IP65
FRONT MATERIAL	4 mm glass with black frame	3.5 mm anodized aluminium	glass/aluminium, black anodized
I/Os	8/8	8/8	–
SPECIALS	optional logo backlighting	–	wide screen
DIMENSIONS (WxHxD)	317 x 266 x 48 mm	320 x 260 x 48 mm	306 x 217 x 51 mm
ARTICLE NUMBER	01-230-1233	12-230-1251	01-230-1234

* Available starting in Q2/2018, subject to technical changes



15 & 15.6 INCHES

PRODUCT NAME	ETT 1533 Operating Panel	TT 1533 Swing Arm Mount	ETT 1561 Operating Panel
TOUCH	capacitive (multi-touch PCT)	capacitive (multi-touch PCT)	resistive
PROCESSOR	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)
INTERFACES	2x Ethernet, 1x CAN, 2x USB 2.0, 1x USB-OTG	2x Ethernet, 1x CAN, 4x USB 2.0	2x Ethernet, 1x CAN, 3x USB 2.0
RESOLUTION	1024 x 768 pixels	1024 x 768 pixels	1024 x 768 pixels
FRONT PROTECTION TYPE	IP65	IP54	IP54
FRONT MATERIAL	4 mm glass with black frame	glass/aluminium	PC/ASA
I/Os	8/8	–	–
SPECIALS	optional logo backlighting	swing arm mount (VESA 75)	–
DIMENSIONS (WxHxD)	376 x 310 x 48 mm	358 x 342 x 48 mm	358 x 313 x 62 mm
ARTICLE NUMBER	01-230-1533	01-270-1533	01-230-1561



PRODUCT NAME	TAE 151 Operating Panel	ETT 1534* Operating Panel
TOUCH	resistive	capacitive (multi-touch PCT)
PROCESSOR	–	EDGE2 Technology (2x 800 MHz)
INTERFACES	1x CAN, 4x USB 1.1, 1x S-DVI	2x Ethernet, 1x USB 2.0, 1x USB-OTG
RESOLUTION	1024 x 768 pixels	1366 x 768 pixels
FRONT PROTECTION TYPE	IP54	IP65
FRONT MATERIAL	PC/ASA	glass/aluminium, black anodized
I/Os	–	–
SPECIALS	–	wide screen
DIMENSIONS (WxHxD)	358 x 313 x 62 mm	398 x 248 x 60 mm
ARTICLE NUMBER	12-200-151	01-230-1534

* Available starting in Q2/2018, subject to technical changes



NEW



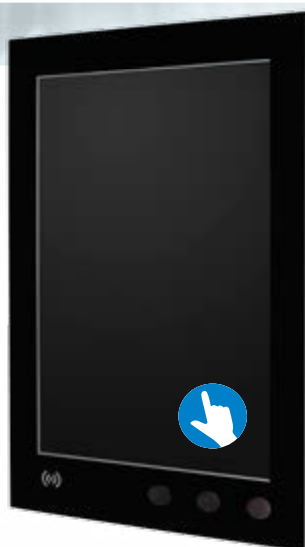
18.5 & 19 INCHES

PRODUCT NAME	TT 1933-S Operating Panel	ETT 1834* Operating Panel	ETT 1933 Operating Panel
TOUCH	capacitive (multi-touch PCT)	capacitive (multi-touch PCT)	capacitive (multi-touch PCT)
PROCESSOR	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)	EDGE2 Technology (2x 800 MHz)
INTERFACES	2x Ethernet, 3x USB 2.0	2x Ethernet, 1x USB 2.0, 1x USB-OTG	2x Ethernet, 1x CAN, 2x USB 2.0, 1x USB-OTG
RESOLUTION	1366 x 768 pixels	1366 x 768 pixels	1280 x 1024 pixels
FRONT PROTECTION TYPE	IP54	IP65	IP65
FRONT MATERIAL	glass/aluminium	glass/aluminium, black anodized	4 mm glass with black frame
I/Os	–	–	8/8
SPECIALS	swing arm mount (VESA 75/100)	wide screen	optional logo backlighting
DIMENSIONS (WxHxD)	472 x 345 x 44 mm	463 x 284 x 53 mm	448 x 384 x 44 mm
ARTICLE NUMBER	01-270-1933-S	01-230-1834	01-230-1933



PRODUCT NAME	ETT 1962 Operating Panel	TAE 1921 / TAE 1941 Operating Panel	TAE 1931 Operating Panel
TOUCH	resistive	resistive	resistive
PROCESSOR	EDGE2 Technology (2x 800 MHz)	–	–
INTERFACES	2x Ethernet, 2x USB 2.0	2x USB 2.0, 1x HMI-Link / HMI-Link G2	3x USB 2.0, 1x display port
RESOLUTION	1024 x 1280 pixels	1024 x 1280 pixels	1024 x 1280 pixels
FRONT PROTECTION TYPE	IP54	IP54	IP54
FRONT MATERIAL	PC/ASA	PC/ASA	PC/ASA
I/Os	–	–	–
SPECIALS	–	–	–
DIMENSIONS (WxHxD)	360 x 462 x 57 mm	360 x 462 x 57 mm	360 x 462 x 57 mm
ARTICLE NUMBER	01-230-1962	12-200-1921 / 12-200-1941	12-200-1931

* Available starting in Q2/2018, subject to technical changes



21.5 & 23.8 INCHES

PRODUCT NAME	ETT 2134* Operating Panel	TAE 2343 Operating Panel
TOUCH	capacitive (multi-touch PCT)	capacitive (multi-touch PCT)
PROCESSOR	EDGE2 Technology (2x 800 MHz)	–
INTERFACES	2x Ethernet, 1x USB 2.0, 1x USB-OTG	1x USB 2.0, 1x HMI-Link G2, 1x RFID reader
RESOLUTION	1920 x 1080 pixels	1080 x 1920 pixels (full HD)
FRONT PROTECTION TYPE	IP65	IP54
FRONT MATERIAL	glass/aluminium, black anodized	glass
I/Os	–	–
SPECIALS	wide screen	swing arm mount (VESA 75)
DIMENSIONS (WxHxD)	534 x 326 x 53 mm	385 x 665 x 49 mm
ARTICLE NUMBER	01-230-2134	12-200-2343

* Available starting in Q2/2018, subject to technical changes

	ARTICLE DESCRIPTION	BUILD-IN PANELS	MOUNTABLE PANELS	MOBILE PANELS	DISPLAY SIZE	DISPLAY RESOLUTION (PIXELS)	TOUCH	FRONT PROTECTION	PROCESSOR	CORES	CLOCK FREQUENCY	USB DEVICE	USB HOST FRONT	USB HOST BACK	ETHERNET *	VARAN	CAN	HMI LINK	DISPLAYPORT	S-DVI
OPERATING PANELS capacitive (multi-touch PCT)																				
	ETT 732	x			7"	800 x 480	capacitive	IP54	EDGE2	1	800 MHz			x	x		2x			
	ETT 0833	x			8.4"	800 x 600	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		2x	2x		x			
	ETT 1033	x			10.4"	1024 x 768	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		2x	2x		x			
	HGT 1051			x	10.1"	800 x 1280	capacitive	IP54	EDGE2	2	2x800 MHz			x	x					
	HGW 1033**			x	10.1"	800 x 1280	capacitive	IP54	EDGE2	2	2x800 MHz	DRP		x						
	ETT 1233	x			12.1"	1024 x 768	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		2x	2x		x			
	ETT 1533	x			15"	1024 x 768	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		2x	2x		x			
	TT 1533		x		15"	1024 x 768	capacitive	IP54	EDGE2	2	2x800 MHz		2x	2x	2x		x			
	TT 1933-S		x		18.5"	1366 x 768	capacitive	IP65	EDGE2	2	2x800 MHz		2x	1x	2x					
	ETT 1933	x			19"	1280 x 1024	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		2x	2x		x			
	TAE 2343		x		23.8"	1080 x 1920	capacitive	IP54	-	-	-		x					x		
OPERATING PANELS resistive																				
	ETT 312	x			3.5"	320 x 240	resistive	IP65	-	-	-						x			
	ETT 352	x			3.5"	320 x 240	resistive	IP30	-	-	-						x			
	ETT 353		x		3.5"	320 x 240	resistive	IP54	-	-	-						x			
	ETT 731	x			7"	800 x 480	resistive	IP54	EDGE2	1	800 MHz		x	x	x		2x			
	ETT 771	x			7"	800 x 480	resistive	IP54	EDGE2	1	800 MHz	OTG	x		x		x			
	HBG 0811			x	8.4"	800 x 600	resistive	IP54	-	-	-			x				x		
	HBG 1011			x	10.4"	1024 x 768	resistive	IP54	-	-	-			x				x		
	ETT 1561		x		15"	1024 x 768	resistive	IP54	EDGE2	2	2x800 MHz		3x	x	2x		x			
	TAE 151		x		15"	1024 x 768	resistive	IP54	-	-	-		3x	x			x			x
	ETT 1962	x			19"	1024 x 1280	resistive	IP54	EDGE2	2	2x800 MHz		x	x	2x					
	TAE 1921	x			19"	1024 x 1280	resistive	IP54	-	-	-		x	x				x		
	TAE 1931	x			19"	1024 x 1280	resistive	IP54	-	-	-		x	2x					x	
	TAE 1941	x			19"	1024 x 1280	resistive	IP54	-	-	-		x	x				x		
CONTROL PANELS resistive																				
	ETV 0551	x			5.7"	640 x 480	resistive	IP54	EDGE	1	800 MHz	x	x	x	x	x	x			
	ETV 0552	x			5.7"	640 x 480	resistive	IP65	EDGE	1	800 MHz	x		x	x	x	x			
	ETV 0555	x			5.7"	640 x 480	resistive	IP54	EDGE	1	800 MHz	x	x	x	x	x	x			
	ETV 0851	x			8.4"	800 x 600	resistive	IP54	EDGE	1	800 MHz	x	x	x	x	x	x			
	ETV 0851-I	x			8.4"	800 x 600	resistive	IP65	EDGE	1	800 MHz	x		x	x	x	x			
	ETV 0855	x			8.4"	800 x 600	resistive	IP54	EDGE	1	800 MHz	x	x	x	x	x	x			
	ETV 1251	x			12.1"	800 x 600	resistive	IP54	EDGE	1	800 MHz	x	x	x	x	x	x			
	HGT 835			x	8.4"	800 x 600	resistive	IP54	EDGE2	2	2x800 MHz	x		x	x	x				
	HGT 1035			x	10.4"	1024 x 768	resistive	IP54	EDGE2	2	2x800 MHz	x		x	x	x				
WIDSCREEN capacitive (multi-touch PCT)																				
	ETT 1034	x			10.1"	1280 x 800	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		x	2x					
	ETT 1234	x			12.1"	1280 x 800	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		x	2x					
	ETT 1534	x			15.6"	1366 x 768	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		x	2x					
	ETT 1834	x			18.5"	1366 x 768	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		x	2x					
	ETT 2134	x			21.5"	1920 x 1080	capacitive	IP65	EDGE2	2	2x800 MHz	OTG		x	2x					

* Usable as TCP Modbus via software

** Subject to technical changes, availability Q3/2018

RS232	RS485 / MODBUS RTU	INTERNAL I/O	RAM	FLASH (CF)	FLASH (MICROSD)	FLASH (NAND)	FLASH (NOR)	REMNANT DATA	CHARACTERISTICS	ARTICLE NUMBER	PAGE
x			256 MB DDR3	-	-	512 MB	-	256 kB SRAM	Dual-Touch	01-230-732	20
		x	512 MB DDR3	-	512 MB	-	-	512 kB SRAM	Optional logo backlighting	01-230-0833	20
		x	512 MB DDR3	-	512 MB	-	-	512 kB SRAM	Optional logo backlighting	01-230-1033	22
			512 MB DDR3	-	1 GB	-	-	128 kB MRAM	Emergency stop, confirmation button, key switch	01-245-1051	21
			512 MB DDR3	-	1 GB	-	-	128 kB MRAM	WLAN, emergency stop, confirmation button, key switch	01-246-1033-3	21
		x	512 MB DDR3	-	512 MB	-	-	512 kB SRAM	Optional logo backlighting	01-230-1233	22
		x	512 MB DDR3	-	512 MB	-	-	512 kB SRAM	Optional logo backlighting	01-230-1533	23
			512 MB DDR3	-	512 MB	-	-	512 kB MRAM	Swing Arm Mount	01-270-1533	23
			512 MB DDR3	-	1 GB	-	-	512 kB MRAM	Swing Arm Mount	01-270-1933-S	24
		x	512 MB DDR3	-	512 MB	-	-	512 kB SRAM	Optional logo backlighting	01-230-1933	24
			-	-	-	-	-	-	Swing arm mount, full HD, RFID reader	12-200-2343	25
			8 MB SDRAM	-	-	-	8 MB	-		01-230-312	19
			8 MB SDRAM	-	-	-	1 MB	-		01-230-352-1	19
			8 MB SDRAM	-	-	-	8 MB	-		01-230-353	19
x			256 MB DDR3	-	-	512 MB	-	256 kB SRAM	Wide screen	01-230-731	20
x	x		256 MB DDR3	-	512 MB	-	-	256 kB SRAM	Wide screen, USB-OTG for servicing purposes	01-230-771	20
			-	-	-	-	-	-	Emergency stop, confirmation button, key switch	12-245-0811	20
			-	-	-	-	-	-	Emergency stop, confirmation button, key switch	12-245-1011	22
			512 MB DDR3	-	512 MB	-	-	512 kB SRAM		01-230-1561	23
			-	-	-	-	-	-		12-200-151	23
			512 MB DDR3	-	1 GB	-	-	512 kB SRAM		01-230-1962	24
			-	-	-	-	-	-		12-200-1921	24
			-	-	-	-	-	-		12-200-1931	24
			-	-	-	-	-	-		12-200-1941	24
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-0551	19
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-0552	19
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-0555	19
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-0851	20
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-0851-I	21
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-0855	21
		x	64 MB DDR2	-	512 MB	-	-	512 kB SRAM		12-230-1251	22
			256 MB DDR3	-	1 GB	-	-	128 kB MRAM	Emergency stop, confirmation button, key switch	01-245-835	21
			256 MB DDR3	-	1 GB	-	-	128 kB MRAM	Emergency stop, confirmation button, key switch	01-245-1035	22
			1 GB - 2 GB DDR3	-	512 MB	-	-	512 kB SRAM	Wide screen	01-230-1034	21
			1 GB - 2 GB DDR3	-	512 MB	-	-	512 kB SRAM	Wide screen	01-230-1234	22
			1 GB - 2 GB DDR3	-	512 MB	-	-	512 kB SRAM	Wide screen	01-230-1534	23
			1 GB - 2 GB DDR3	-	512 MB	-	-	512 kB SRAM	Wide screen	01-230-1834	24
			1 GB - 2 GB DDR3	-	512 MB	-	-	512 kB SRAM	Wide screen	01-230-2134	25

INTERNATIONAL



AUSTRIA - CORPORATE HEADQUARTERS

SIGMATEK GmbH & Co KG
5112 Lamprechtshausen
Sigmatekstraße 1
Tel. +43/62 74/43 21-0
Fax +43/62 74/43 21-18
www.sigmatek-automation.com
office@sigmatek.at



GERMANY

SIGMATEK GMBH
76829 Landau
Marie-Curie-Straße 9
Tel. +49/63 41/94 21-0
Fax +49/63 41/94 21-21
www.sigmatek-automation.com
office@sigmatek.de



SWITZERLAND

SIGMATEK Schweiz AG
8308 Illnau-Effretikon
Schmittestrasse 9
Tel. +41/52/354 50 50
Fax +41/52/354 50 51
www.sigmatek-automation.ch
office@sigmatek.ch



BELGIUM

SigmaControl B.V.
2994 LB Barendrecht
Tel. +32/329/770 07
www.sigmacontrol.eu
office@sigmacontrol.eu



CHINA

Shanghai Dimension,
Automatic Control System Solution Co., Ltd
200032 Shanghai
Tel. +86/21/68 79 46 80
www.dmxtech.com
buyer@dmxtech.com



DENMARK

SH GROUP A/S
5700 Svendborg
Tel. +45/6221/78 10
www.shgroup.dk
sigmatek@shgroup.dk



FINLAND

SARLIN Oy Ab
01610 Vantaa
Tel. +35/81 05/50 40 00
www.sarlin.com
info@sarlin.com



FRANCE

I.S.I.T
31830 Plaisance du Touch
Tel. +33/561/30 69 00
www.isit.fr
contact@isit.fr



GREAT BRITAIN

SIGMATEK Automation UK Limited
Nottingham, NG7 2RF
Nottingham Science Park
10 Edison Village
Tel. +44/115/922 24 33
Fax +44/115/922 49 91
www.sigmatek-automation.co.uk
office@sigmatek-automation.co.uk



USA

SIGMATEK U.S. Automation, Inc.
44133 North Royalton, Ohio
10147 Royalton Rd., Suite N.
Tel. +1/440/582 1266
Fax +1/440/582 1476
www.sigmatek-automation.us
office@sigmatek.us



CHINA

SIGMATEK Automation CO., Ltd
315040 Ningbo · Room 805,
Building A, No. 555, Jingjia Road
Tel. +86/574/87 75 30 85
Fax +86/574/87 75 30 65
www.sigmatek-automation.cn
office@sigmatek-automation.cn



Korea

SIGMATEK Automation Korea CO., Ltd
08500 Seoul · 4th floor, Digital Industrial Bldg 169-28
Gasam digital 2-ro Geumcheon-gu
Tel. +82/2 867 1566
Fax +82/70 8244 4488
www.sigmatek-automation.kr
office@sigmatek-automation.kr



INDIA

SIGMA CONTROLS
411045 Pune
office@sigmatek-automation.in
www.sigmatek-automation.in



ITALY

SIGMA MOTION SRL
36075 Montecchio Maggiore (VI)
Tel. +39/04 44/60 75 75
www.sigmamotion.it
info@sigmamotion.it



NETHERLANDS

SigmaControl B.V.
2994 LB Barendrecht
Tel. +31/180/69 57 77
www.sigmacontrol.eu
office@sigmacontrol.eu



POLAND

SDS Automatyka Sp.J.
53-238 Wrocław
Tel. +48/71 33/90 441
www.sds-automatyka.pl
biuro@sds-automatyka.pl



PORTUGAL

Plasdan Automation & Add-On Systems
2430-379 Marinha Grande
Tel. +351/244/572 110
www.plasdan.pt
info@plasdan.pt



SWEDEN

SIGBI Automation AB
254 64 Helsingborg
Tel. +46/42/654 00
www.sigmatek.se
info@sigmatek.se



SERBIA

Rovex Inzenjering d.o.o.
11070 Belgrad
Tel. +381/11/31 15 20 8
www.rovex.rs
romeov@ptt.rs



SOUTH AFRICA

ANYTECH (PTY) Ltd.
2163 Gauteng
Tel. +27/11/708 1992
www.anytech.co.za
erika.neethling@anytech.co.za



THAILAND

SCM Allianz Co. Ltd.
10400 Bangkok
Tel. +66/02/615 48 88
www.scm.co.th
contact@scm.co.th



TURKEY

Dedem Mekatronik
35477 Menderes – İzmir
Tel. +90/232/472 18 48
www.dedemmekatronik.com
sigmatek@dedemmekatronik.com