

Build-in Touch Terminal

ETT 2144-W



The ETT 2144-W is an intelligent panel for visualizing, operating and monitoring automated processes.

A capacitive touch screen serves as the input medium for process data and parameters. The output is shown on a 21.5" TFT color display.

Via the high-performance processor, complex HTML5 applications can be displayed without problems.

The available interfaces can be used to exchange process data or configure the multi-touch terminal. An M.2 SSD serves as the storage medium for the operating system, application and application data.

Performance Data		
Processor	Intel® Celeron® J4005	
Processor cores	2	
Processor clock	2.0-2.7 GHz	
Internal cache	4 Mbytes	
Internal program and data memory (RAM)	2-Gbyte DDR4 (SODIMM)	
Graphics	Intel® UHD Graphics 600	
Hard drive	64-Gbyte SATA M.2 SSD	
Interfaces	4x USB 2.0 (Type A) 1x DisplayPort output V1.2a (max. 1920 x 1200 px at 60 Hz) 2x Ethernet (Gbit)	
Internal interfaces	1x Panel Interface Connector	
Signal generator	no	

Display Resolution	21.5" TFT color display Full HD 1920 x 1080 pixels	
Operating panel	touch screen (projective capacitive)	
Status LEDs	1x red, 1x green	
Real-time clock	yes	
Cooling	passive (fanless)	

Electrical Requirements		
Supply voltage	+24 V DC ±20 % (SELV/PELV) UL Class 2 or LVLC	
Current consumption of (+24 V) power supply	typically 1500 mA (without externally connected devices)	maximum 2000 mA (with external devices connected)
Inrush current with 24 V/10 A fixed voltage supply	maximum 2.2 A (for 1.8 ms, load-dependent)	
Inrush current without current limiting supply	maximum 3.5 A (for 6 µs, load-dependent)	

Terminal		
Dimensions	539 x 331 x 90 mm (W x H x D)	
Material	front plate: 2.8 mm glass (touch screen) in black anodized aluminum frame housing: sheet steel heat sink: anodized aluminum	
Weight	6.5 kg	

Environmental Conditions		
Storage temperature	-10 ... +70 °C	
Environmental temperature	0 ... +50 °C	
Humidity	10-95 %, non-condensing	
Installation altitude above sea level	0-2000 m without derating > 2000 m with derating of the maximum environment temperature by 0.5 °C per 100 m	
Operating conditions	pollution degree 2	
EMC resistance	in accordance with EN 61000-6-2 (industrial area)	
EMC noise generation	in accordance with EN 61000-6-4 (industrial area)	
Vibration resistance	EN 60068-2-6	5-200 Hz: amplitude 3.5 mm Transition frequency: 8.42454 Hz acceleration: 1 g duration: 10 cycles cycle: 1 octave/minute
Shock resistance	EN 60068-2-27	15 g (147.15 m/s²)
Protection type	EN 60529 protected through the housing	front: IP65 cover IP20

Display

Type	21.5" TN color display
Resolution	FullHD 1920 x 1080 pixels
Color depth	24-bit RGB
LCD mode	normally black
LCD Polarizer	transmissive
Pixel size	0.248 x 0.248 mm
Active surface	476.64 x 268.11
Backlighting	LED
Contrast ratio	typically 5000:1
Brightness	typically 300 cd/m²
Angle CR ≥ 10	left, right, top, bottom typically 89°
Life span	by compliance with the ambient conditions, the brightness of the display sinks after 50,000 operating hours to 50 % of the original brightness

Article Number and Miscellaneous

Article number	01-230-2144-W
Operating system	Windows 10 IoT
Approvals	CE; ETT 2144-W consists of a TP 2161 („UL _{us} (E247993)) and a PIM 041-W (UL in preparation)

Notes