Touch Operating Panel
ETT 736

with 7" WVGA TFT color display

The ETT 736 is an intelligent panel for visualizing, operating and monitoring automated processes. Process diagnosis, operating and monitoring automated functions are simplified using this terminal.
An analog resistive touch screen serves as the input medium for process data and parameters. The output is shown on a 7" WVGA TFT color display.
With the LASAL visualization tool, graphics can be created on the PC, then stored and displayed on the terminal. In the internal Flash memory, the operating system, application and application data are stored.

Performance Data

Processor	EDGE2-Technology
Processor cores	2
Internal cache	32-kbyte L1 Instruction Cache 32-kbyte L1 Data Cache 512-kbyte L2 Cache
Internal program and data memory (RAM)	512-Mbyte DDR3
Internal remnant data memory	512-kbyte SRAM (battery buffered)
Internal storage device	512-Mbyte microSD
Internal I/O	yes
Interfaces	1x USB 2.0 (Type A) 1x USB-OTG (host/device), type Mini B 2x Ethernet 10/100 (RJ45) 1x CAN bus (6-pin Weidmüller) 8x dig. I/Os (8-pin Phoenix)
Internal interfaces	1x TFT-LCD color display 1x Touch
Display Resolution	7" TFT color display WVGA 800 x 480 pixels

Operating panel	4-wire touch screen (analog resistive)	
Signal generator	no	
Real-time clock	yes (battery buffered)	
Cooling	passive (fanless)	

Digital Inputs

Number	8	
Input voltage	typically +24 V	maximum +30 V
Signal level	low: < +4.5 V	high: > +14 V
Switching threshold	typically +11 V	
Input current	typically 5 mA at +24 V	
Input delay	typically 5 ms	

Digital Outputs

Number	8
Short-circuit proof	yes
Maximum permissible continuous load current/channel	0.5 A
Maximum total current (all 8 channels)	2 A (100 % of on time)
Voltage drop over power supply (output active)	≤ 1 V
Residual current output (off)	≤ 12 µA
Turn-on delay	< 400 µs
Turn-off delay	< 400 µs
Max. braking energy of inductive loads	1 channel 0.12 [Joules]

Electrical Requirements

Supply voltage	typically +24 V DC ±20 % (SELV/PELV) UL: Class 2 or LVLC	
Protection class	III	
Current consumption of (+24 V) power supply	typically 350 mA (without externally connected devices)	maximum 560 mA (with external devices connected)
Inrush current	maximum 2 A (for 10 µs)	

Display

Type	7" TFT LCD color display
Resolution	WVGA 800 x 480 pixels
Color depth	16 Bit RGB (65K colors)
LCD mode	normal white
LCD Polarizer	transmissive
Pixel size	0.1926 x 0.1790 mm
Active range	154.08 x 85.92 mm
Backlighting	LED
Contrast ratio	typically 500:1
Brightness	typically 280 cd/m²
Angle CR ≥ 10	left and right 70°, below 70°, above 50°
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

Input

Input	resistive touch screen

Control Unit

Operating panel	Touch screen (analog resistive)
Maximum number of fingers	1
Operation with thin gloves	yes
SIGMATEK touch pen (passive)	yes
Handwriting recognition	no
Palm recognition	no
Spray water detection	yes
Moisture detection	no
Cleaning	See chapter: Cleaning and Disinfecting the Touch Screen

Environmental Conditions

Storage temperature	-10 ... +85 °C	
Environmental temperature	0 ... +45 °C	
Humidity	10-95 %, non-condensing	
Installation altitude above sea level	0-2000 m without derating > 2000 m up to a maximum of 5000 m with derating of the maximum environmental temperature by 0.5 °C per 100 m	
Operating conditions	pollution degree 2	
EMC resistance	according to EN 61000-6-2:2007 (industrial area)	
EMC noise generation	according to EN 61000-6-4 (industrial area)	
Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	15 g (150 m/s²)
Protection type	EN 60529 protected through the housing	front: IP65 cover: IP20

Article Number and Miscellaneous

Article number	01-230-736
Operating system	Salamander
Standard	UL in preparation
Approvals	CE