

# Touch Operating Panel ETT 312



The ETT 312 is a touch operating panel with a 3.5" TFT color display. The resistive touch screen serves as the input medium for process data and parameters. To save energy, the display is deactivated in sleep mode. When the screen surface is touched, the terminal is activated and then deactivated a few minutes after the last input.

With the LASAL SCREEN mask editor, graphics can be created on the PC, then stored and displayed on the terminal. Data is exchanged over CAN bus.

## Performance Data

SDRAM	8-Mbyte	
Flash	8-Mbyte	
Interfaces	1x CAN bus	
Data rate	maximum 1 Mbit/s	
Display Resolution	3.5" TFT color display 320 x 240 pixels	

## Electrical Requirements

Supply voltage	typically +24 V (+18-30 V DC) UL: Class 2 or LVLC	
Current consumption	typically 60 mA	maximum 100 mA
Inrush current	typically 0.9 A for 10 ms	maximum 1.2 A for 20 ms
UL standard	for UL: must be supplied with SELV / PELV and Limited Energy Digital output also is SELV / Limited Energy.	

## Terminal

Operating unit dimensions	103.6 x 99.6 x 38.1 mm (W x H x D) with opposing connector 111.8 x 107.8 x 38.1 mm (W x H x D) with opposing connector and fastening clips	
Control cabinet cutout	minimum 92.2 x 88.2 mm (W x H) maximum 93.5 x 89.5 mm (W x H)	
Material	front plate: 3 mm anodized aluminum	
Weight	ca. 250 g	

## Environmental Conditions

Storage temperature	-10 ... +70 °C	
Environmental temperature	0 ... +55 °C	
Humidity	10-95 %, non-condensing	
Operating conditions	pollution degree 2 Indoor use altitude up to 2000 m	
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	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	15 g
Protection type	EN 60529	front: IP65 cover: IP20

## Display

Type	3.5" LC graphic display	
Resolution	320(RGB) x 240	
Pixel size	0.219 x 0.219 mm	
Number of pixels	320*3 (RGB) x 240 pixels	
Active surface	70.08 x 52.56 mm	
Color depth	24 bits	
Backlighting	6x LED, white, regulatable	
Contrast	400:1	
Touch	resistive	
Brightness	typically 350 cd/m <sup>2</sup>	
Visible field	left and right 70°, below 70°, above 60°	

## Article Number and Miscellaneous

Article number	01-230-312	
Standard	UL 61010-2-201	
Approvals	UL, cUL, CE, UKCA	