Control Panel

ETV 1991

The control panel is an intelligent terminal for programming and visualization of automated processes. Process diagnosis as well as operating and monitoring automated procedures is simplified using this terminal. A touch screen serves as the input medium for process data and parameters. The output is shown on a 19" SXGA TFT color display.

With the LSE mask editor, graphics can be created on the PC, then stored and displayed on the terminal. The available interface connections can be used to exchange process data or configure the terminal.

The integrated, high-performance VARAN bus enables the direct control of I/O modules.

Performance Data

Processor	1.6 GHz Intel Atom N270
Cache	512-kbyte 1st Level
BIOS	AMI BIOS
SDRAM (SO-DIMM 200-Pin)	256-Mbyte DDR2
CompactFlash (Type I)	1-Gbyte
SRAM	512-kbyte (battery buffered)
Interface connections	1x CAN bus 1x DIAS bus 2x VARAN bus (maximum length: 100 m) 2x Ethernet 10/100 Mbit 2x USB V2.0 Type A (Front + back side) 1x chip card reader (optional)
Internal interface connections and devices	1x TFT color display and inverter 1x Touch 1x CompactFlash socket
Control panel	Touch-Screen (analog resistive)
Display	19" TFT color display SXGA, 1280 x 1024 pixels
LEDs	Status displays
Data buffer	Lithium battery
Real-time clock	yes
Cooling	active (fan)

Electrical Requirements

Supply voltage	minimum +18 V DC	maximum +30 V DC
Current consumption of voltage supply	typically 1.5 A (at +24 V) (without external devices connected)	
Inrush current	maximum 20 A for < 5 ms	

Terminal

Dimensions	360 mm x 462 mm x 57 mm (W x H x D)
Weight incl. mounting bracket	typically 7 kg

Display

Type	19" TFT color display
Resolution	SXGA, 1280 x 1024 pixels
Color depth	18-bit (262 x 144 colors)
Pixel size	0.294 mm x 0.294 mm
Active surface	376.3 mm x 301.1 mm
Background lighting	4 cold cathode tubes (CCFT, switchable)
Contrast	typically 1300 : 1
Brightness	typically 300 cd/m²
Angle CR > 10	left and right 89°, above and below 89°

Control Unit

Touch foil	analog resistive glass touch panel
Active surface	376.3 mm x 301.1 mm
Resolution	12 bit (4096 x 4096)
Touch precision	< 1.5 % of maximum value (5.6 mm)

Article Number and Miscellaneous

Article number	12-230-1991
Hardware version	1.x
Software macro	LSE LASAL operating system
Project backup	internally on CompactFlash

Environmental Conditions

	Storage temperature	-20 ... +60 °C	
	Operating temperature	0 ... +50 °C	
	Humidity	10-90 %, non-condensing	
	EMV tolerance	EN 61000-6-2 (industrial area): Noise resistance EN 61000-6-4: Noise emission	
	Vibration tolerance	EN 60068-2-6	2-9 Hz: amplitude 3.5 mm 9-200 Hz: 1 g (10 m/s²)
	Shock resistance	EN 60068-2-27	15 g (150 m/s²), duration 11 ms, 18 Shocks
	Protection type	EN 60529:Protected through the housing	Front: IP54 Top cover: IP20

Notes