Control Panel VARAN
ETV 0851

with 8.4" SVGA TFT color display
8 digital inputs
8 digital outputs

The ETV Control Panel with EDGDE Technology combines control, operation and visualization in a single unit. Local as well as decentralized I/O systems can be connected over the VARAN bus and therefore not bound to a specific topology when constructing your system. The available interface connections can be programmed completely from the application. A microSD card serves as the storage medium for the operating system, application and application data. Naturally, the panel can also be configured with the LASAL SCREEN Editor.

Performance Data

Processor	EDGE Technology X86 compatible
Internal cache	32-kbyte L1 cache 256-kbyte L2 cache
BIOS	AMI
Internal program and data memory (DDR2 RAM)	64-Mbyte
Internal remnant data memory	512-kbyte
Internal storage device (IDE)	512-Mbyte microSD
Interfaces	2x USB Type A 2.0 (full speed 12 Mbit/s) 1x USB Type Mini B 1.1 1x Ethernet 1x VARAN bus 1x CAN bus
Internal interface connections and devices	1x TFT LCD color display 1x Touch
Control panel	4-wire touch screen (analog resistive)
Display	8.4" TFT color display 800 x 600 pixels
Data buffer	yes
Signal generator	no
Real-time clock	yes
Cooling	passive (fanless)

Electrical Requirements

Supply voltage	typically +24 V DC	
	minimum +18 V DC	maximum +30 V DC
Current consumption Power supply +24 V	typically 400 mA (with no external devices connected)	maximum 450 mA (with external devices connected)
Inrush current	maximum 27 A for 9 µs	

Terminal

Dimensions	240 x 200 x 40.5 mm (W x H x D)
Material	front plate: 3.5 mm anodized aluminum
Weight	1.5 kg

Control Unit

Touch panel	analog resistive film-glass touch panel
Resolution	12-bit (4096 x 4096)

Display

Type	8.4" TFT LCD color display
Resolution	SVGA, 800 x 600 pixels
Color depth	18-bit RGB (262K colors)
LCD mode	TN/normal white
LCD polarizer	transmissive
Pixel size	0.213 mm x 0.213 mm
Active surface	170.40 mm x 127.80 mm
Backlight	LED
Contrast	typically 600 : 1
Brightness	typically 250 cd/m²
Angle CR ≥ 10	left and right 75°, below 70°, above 60°

Digital Outputs

Number of outputs	8	
Short-circuit proof	yes	
Maximum continuous current load allowed per channel	2 A	
Maximum total current (all 8 channels)	6 A (100 % of on time)	
Voltage drop over power supply (output active)	≤ 1 V	
Residual current (output inactive)	≤ 12 µA	
Turn-on delay	< 400 µs	
Turn-off delay	< 400 µs	
Maximum breaking energy braking energy of inductive loads	1 channel 0.12 [Joules]	

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	

Article Number and Miscellaneous

Article number	12-230-0851
Hardware version	1.x
Standard	UL 508 (E247993)

Environmental Conditions

Storage temperature	-10 ... +85 °C	
Environmental temperature	0 ... +50 °C	
Humidity	10-90 %, non-condensing	
EMC stability	EN 61000-6-2: EMC resistance 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	150 m/s²
Protection type	EN 60529: protected through the housing	front: IP54 cover: IP20

Notes