

591CANDI Series

CAN Display Interface Datasheet



The 591CANDI (CAN Display Interface) is a CAN based 2.4" 262k color 320 x 240 TFT LCD with resistive touch screen. The 591CANDI supports multiple CAN protocols including J1939 and CANopen.

The resistive touch screen allows usage in harsh environments or with heavy gloves.

Screens are designed using an intuitive GUI builder (CANcreate) capable of implementing dynamic customer interfaces.

The 591CANDI is housed in an enclosure that allows for a minimum dash profile and seamless integration with HMI Systems 482CRM rocker switch products.

Feature List

- CAN port up to 1 MBaud
- USB port
- Internal 2 kHz 70 dB piezo transducer for audible feedback or alerts
- **Optional** 4 GB Micro SD card for graphical and script assets plus data logging when more than 2MG of data needs to be stored.
- Onboard temperature sensor
- RTC with battery backup
- Resistive touch screen
- CANcreate GUI design authoring tool
- Dimmable backlight for LCD
- Powerful ARM Cortex M7 300 MHz processor

The 591CANDI can store up to 4 GB of data on an internal micro SD card (Optional) as well as a 2 MB secure flash (included in design) and are both accessible through the USB mini port located on the side of the housing. When connected to a PC both drives will appear as mass storage devices. Since all program application data, GUI components, and data logs are contained on these drives updates can be performed by transferring new files to the internal storage. The 2 MB secure flash can run most applications without the need for the 4GB micro SD, but would be limited to the maximum number of images and datalogs that could be stored to it.

Design Specification

- Shock: ISO 16750-3 Sec 4.2.2
- Vibration: ISO 16750-3 Sec 4.1.2.8
- Ingress Protection: IP 63 (water sprayed in all directions to user surface)
- Salt Spray: ASTM B117
- EMI Testing: 2004/104/EC (or SAE J1113 equivalent)
- Section 6.5 Broadband Radiated Emissions
- Section 6.6 Narrowband Radiated Emissions
- Section 6.7 Immunity to Electromagnetic Radiation
- Section 6.8 Immunity to Transients along supply lines
- Section 6.9 Conducted Transient Emissions

Operating voltage 7VDC minimum 12/24VDC nominal 48VDC Maximum

Operating current 120 mA @ 12VDC

Operating temperature -30C to 75C

Storage temperature -40C to 85C

Operating Humidity up to 95% condensing

Display brightness 450 cd/m2 typ.

Contrast ratio 850:1

Viewing angle -80/80 horizontal -80/70 vertical

LED Backlight life > 20,000 hours

REV 7.19.18

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Electrical Specifications

Description	Minimum	Nominal	Maximum
Operating Voltage	10 VDC	12 / 24 VDC	48 VDC
Operating Current	-	120 mA @ 12VDC	-

Physical Specifications

Front Bezel	UL 94 V-0 rated Polycarbonate
Back Cover	UL 94 V-0 rated Polycarbonate
Operating Temperature	-20°C to 70°C
Storage Temperature	-30°C to 85°C
Operating Humidity	Up to 95% condensing
Weight	100 grams
Display brightness	300 cd/m2 typ.
Contrast Ratio	800:1 typ.
Viewing Angle	-80/80 vertical - 80/80 horizontal
LED Backlight Life	> 50,000 hours

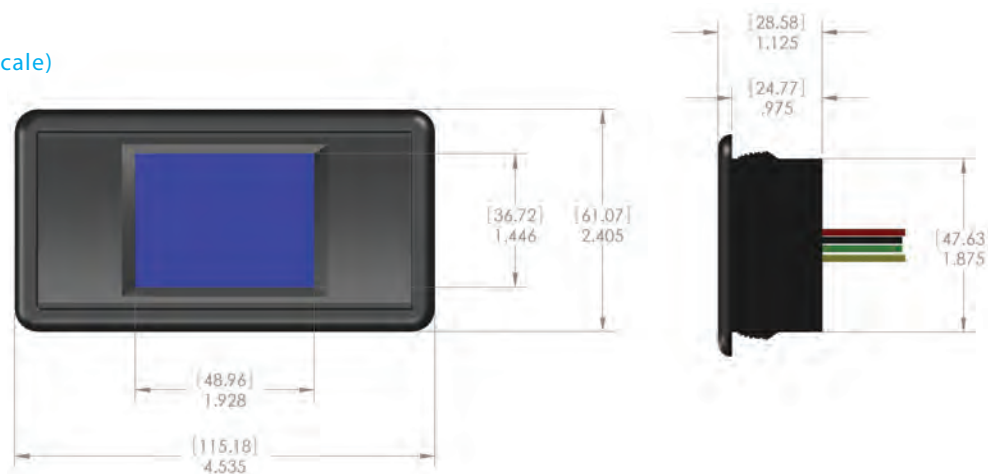
Wiring Specifications

Wiring	V+(red wire)	GND (black wire)	CANL (green wire)	CANH (yellow wire)
Inputs & Outputs	Input	Input	I/O	I/O
Description	Power Input	Ground	CAN Data Bus L	CAN Data Bus H
Recommended Wire Gauge	18AWG	18AWG	18AWG	18AWG

Mounting Specifications

In order to mount the 591CANDI, the panel opening cutout needs to fall within the minimum and maximum allowances. Recommended cutout is: length of 4.20" (106.68 mm) and a width of 1.90" (48.26mm). Maximum panel thickness is 0.35" (8.89mm), for assembly to lock into place. An optional gasket can be added to further protect mounting location from intrusion of dust or moisture. Gasket seals between frame and mounting surface.

Mechanical Dimensional Views (not to scale)



Cutout Template (not to scale)

