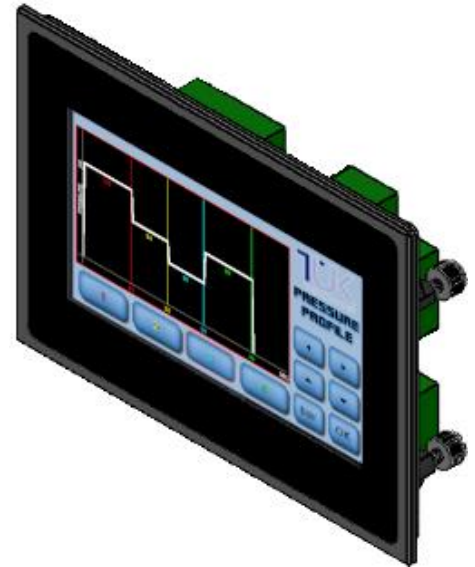


#### Product Features

- 4.3 inch 24 Bit Colour TFT with Resistive Touch and Front Mounting Bezel
- Supply Input Voltage 5VDC or 9V-30VDC
- Isolated 5.0V output and non-isolated 5.0V and 3.3V outputs for peripheral supply
- 1x USB Host / Device Interface 2.0 for PC or Memory Stick, 1x 4G-32G SDHC slot
- 1x Isolated RS485/TTL Half/Full Duplex Interface
- 1x RS232 with RXD/TXD/CTS/RTS, 1x I2C Master Expansion Interface
- 2x Thermistor, Thermocouple or Analogue 0-30V Inputs 16bit ADC
- 1x Analogue 4-20mA, 0-30V Input 16bit ADC, 1x Analogue Input 12bit ADC
- 8x Isolated Digital Inputs 5V / 12V-24V
- 4x Digital Outputs 5-30V 100mA ( inc 2xPWM )
- 4x Isolated 9-30V 1.5Amp Power Digital/PWM Outputs for solenoid or motor drive
- Battery-backup Real Time Clock (RTC)
- 1x One Wire Digital Sensor Port 3V3 I/O
- Optional 2W PCM Audio Output module or additional CAN, RS232 and I2C adaptor

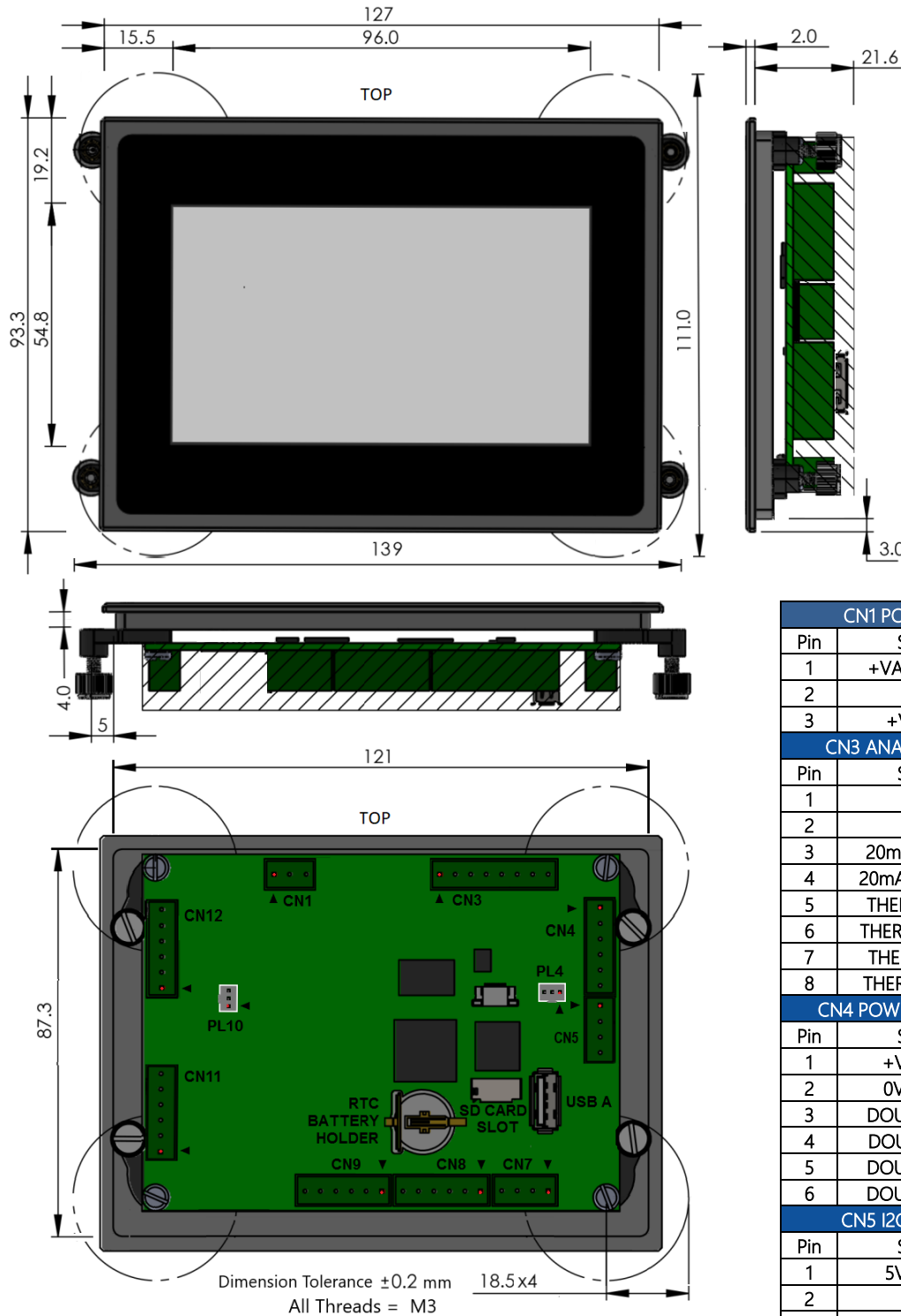


The resistive touch panel provides a cost effective one touch solution capable of accepting stylus, bare or gloved finger. The firmware can adjust sample rate, de-bounce, auto-repeat and acceptance area depending on required action. The bezel frame is symmetrical allowing 90 and 180 degree rotation with control by single software orientation command.

Product Parameters	Unit	Min	Max	Notes
Supply Voltage $V_A$	VDC	9	30	Power consumption ~2.5W with LED backlight 100%
Supply Voltage $V_B$ (output when using $V_A$ )	VDC	4.75	5.25	Power consumption ~2.5W with LED backlight 100%
Output Voltage 3V3	VDC	3.2	3.4	Maximum current 50mA extra for $V_A/V_B$
Output Voltage 5V0	VDC	4.75	5.25	Maximum current each output 100mA extra for $V_A/V_B$
Real Time Clock Battery	VDC	3	3	CR1216/CR1225 battery holder
Operating Temperature	°C	-20	70	
Storage Temperature	°C	-30	70	
Relative Humidity	%	20	85	25°C operation, non-condensing
Display Brightness	cd/m <sup>2</sup>	280	350	

Interface Parameters	Unit	Input		Output		Notes
		Min	Max	Min	Max	
Isolated RS485/TTL Interface	VDC	-7	+12	0	+5.5	Internal Isolated / External Supply
RS232 Interface	VDC	-15	+15	-3	+7	Internal Isolated / External Supply
I2C Master Interface	VDC	0	5	0	5	SCL/SDA 3V3/5V selectable
USB Host / Device Supply	VDC	4.75	5.25	4.75	5.25	
Isolated Digital Input Interfaces	VDC	5	30			Inputs are jumper selectable for 5V or 12-24V
Analogue DC Inputs	VDC	0	30			Selectable Jumper, 16 bit ADC, x8 amplification
4-20mA Analogue Interface	VDC	0	5			20mA max current
Isolated PWM/Digital Outputs 1.5Amp	VDC			9	30	Over Current / Under Voltage Protection
PWM/Digital Outputs DOUT 5-8 100mA	VDC			5	30	100mA maximum each output
One Wire Digital Sensor Port – PL4	VDC	0	3.3	0	3.3	Internal 4.7k Pull Up to 3V3

PWM outputs can be used as digital outputs by software configuration. Since all outputs can sink and source, do not parallel connect.



#### CN11 RS485/TTL

Pin	Signal
1	5V <sub>isol</sub> 1 / ext
2	0V <sub>isol</sub> 1 / ext
3	Tx+/TTLTx
4	Tx-
5	Rx-
6	Rx+/TTLRx

#### CN7 DIGITAL IN

Pin	Signal
1	DIN6
2	DIN7
3	DIN8
4	COM

#### CN8 DIGITAL IN

Pin	Signal
1	DIN1
2	DIN2
3	DIN3
4	DIN4
5	DIN5
6	COM

#### CN9 DOUT/PWM

Pin	Signal
1	+Vext
2	0V
3	DOUT5
4	DOUT/PWM6
5	DOUT/PWM7
6	DOUT8

#### CN12 RS232

Pin	Signal
1	3V3 OUT
2	0V
3	TXD
4	RTS
5	RXD
6	CTS

#### PL4 ONE WIRE BUS

Pin	Signal
1	3V3 OUT
2	DATA I/O
3	0V

#### PL10 ADC 1

Pin	Signal
1	3V3 OUT
2	ADC1
3	0V

#### CN1 POWER

Pin	Signal
1	+VA 12V/24V
2	0V
3	+VB 5V0

#### CN3 ANALOGUE

Pin	Signal
1	NC
2	NC
3	20mA IN- / 0V
4	20mA IN+ / AN3
5	THERM2- / 0V
6	THERM2+ / AN2
7	THERM1- / 0V
8	THERM1+ / AN1

#### CN4 POWER PWM

Pin	Signal
1	+Vext isol
2	0Vext isol
3	DOUT/PWM0
4	DOUT/PWM1
5	DOUT/PWM3
6	DOUT/PWM4

#### CN5 I2C BUS

Pin	Signal
1	5V0 OUT
2	0V
3	SCL
4	SDA

The +VB is a 5V output when +VA 12V/24V is applied.

The COM pins are connected and can be set to +ve/-ve according to the DIN requirement.

All +Vext pins are isolated from each other and require an input voltage. Arrows define pin 1.

2 wire (half duplex) RS485 requires TX+ connected to Rx+ and Tx- connected to Rx-.

Please refer to the full datasheet for jumper settings required to achieve the desired interface.

The thumb screw lugs swing out once inserted for securing into a 1mm to 4mm thick front panel.

E&OE.