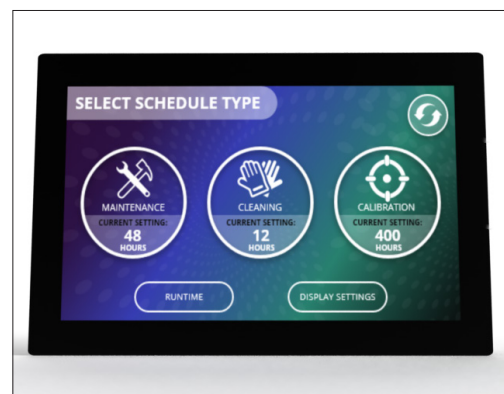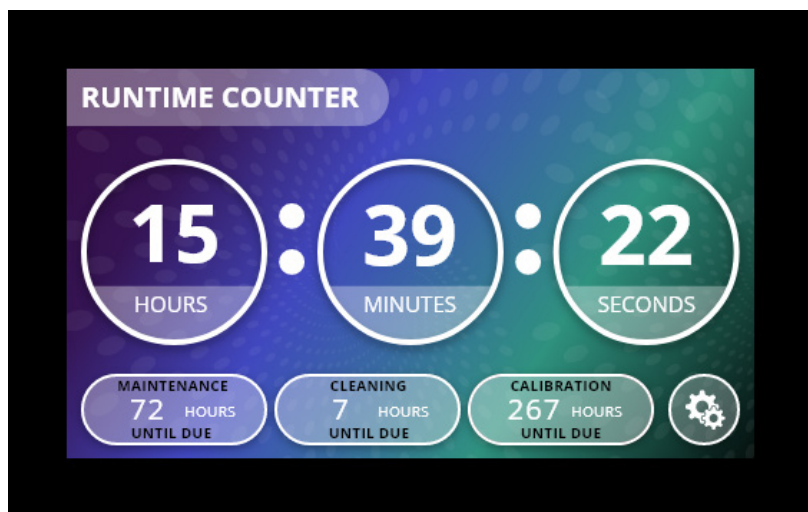# SGD 43-A-RTC
Runtime Counter with 4.3" Capacitive Touch Display

PanelPilot ACE

The SGD 43-A-RTC is a runtime counter with up to three separate schedule modes.

The SGD 43-A-RTC is a panel-mountable runtime counter based on Lascar's PanelPilotACE platform. The product includes a 4.3" panel mounted display module with capacitive touch screen.

As well as displaying the elapsed runtime, the user interface comprises separate screens allowing you to schedule your machine or device's maintenance, cleaning or calibration.

Simply enter the required time needed for any or all service types and the counter will begin. The counter will show an amber alert at 80% of the total elapsed time period, and a red alert at full time. An alarm output will also be triggered when the schedule window has been reached.

The interface can be extensively customised using Lascar's free drag-and-drop PanelPilotACE Design Studio software.

SGD 43-A-RTC Specifications

Operating Temperature	0 to 40°C
Supply Voltage	5 to 30V d.c.
Trigger Voltage (set on device)	30V d.c. (max)
Maximum Schedule Time	999 hours
Alarm output voltage (high)	2.6 to 3.3V
Alarm output voltage (low)	0 to 0.4V
Alarm output current	10.0mA (max)

Connection Options

	TBLK1	PL4
Supply Voltage (V+)	1	2
Supply Voltage (0V)	2	1
Trigger	6	
Calibration Alarm (optional)		15
Cleaning Alarm (optional)		16
Maintenance Alarm (optional)		17

SGD 43-A-RTC
Runtime Counter with 4.3" Capacitive Touch Display

Schedule Modes

The SGD 43-A-RTC can be programmed to display warnings and activate alarm outputs when the following schedules are due:

- Maintenance
- Cleaning
- Calibration

Each SGD 43-A-RTC includes:

- 4.3" PanelPilotACE display with mounting kit (SGD 43-A)
- Mini USB cable (CABLE USB A-MF)

Application Example

The Active voltage trigger is applied to IN1 on TBLK1 pin 6 or PL11 pin 1. The required voltage level for the trigger is set by the user during the initial power-up of the Runtime Counter. For Volt Free Contact operation as shown in the below application, the Trigger voltage level should be set higher than 1V and less than the V+ supply on Pin 1 of TBLK1. In addition the trigger can be set to be Active when the Input is either High or Low.

SGD 43-A-RTC
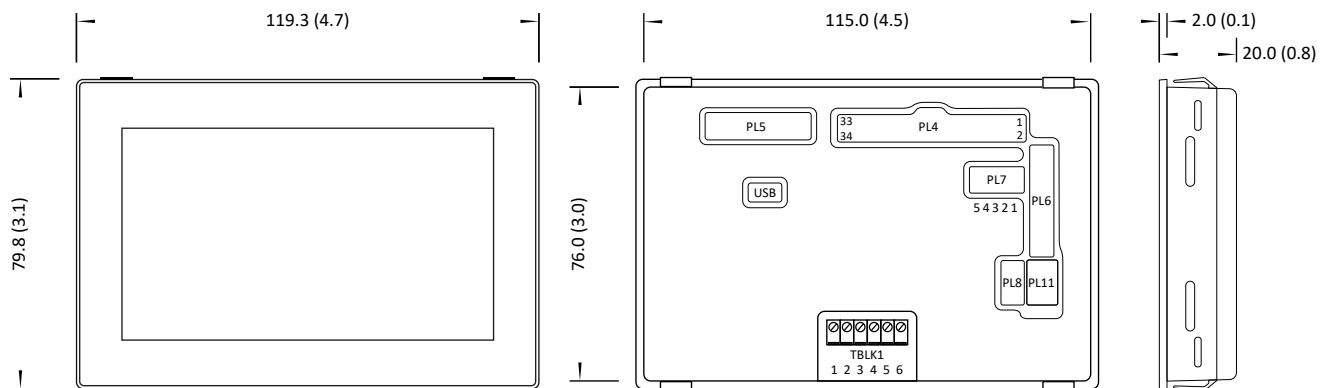## Runtime Counter with 4.3" Capacitive Touch Display

PanelPilotACE
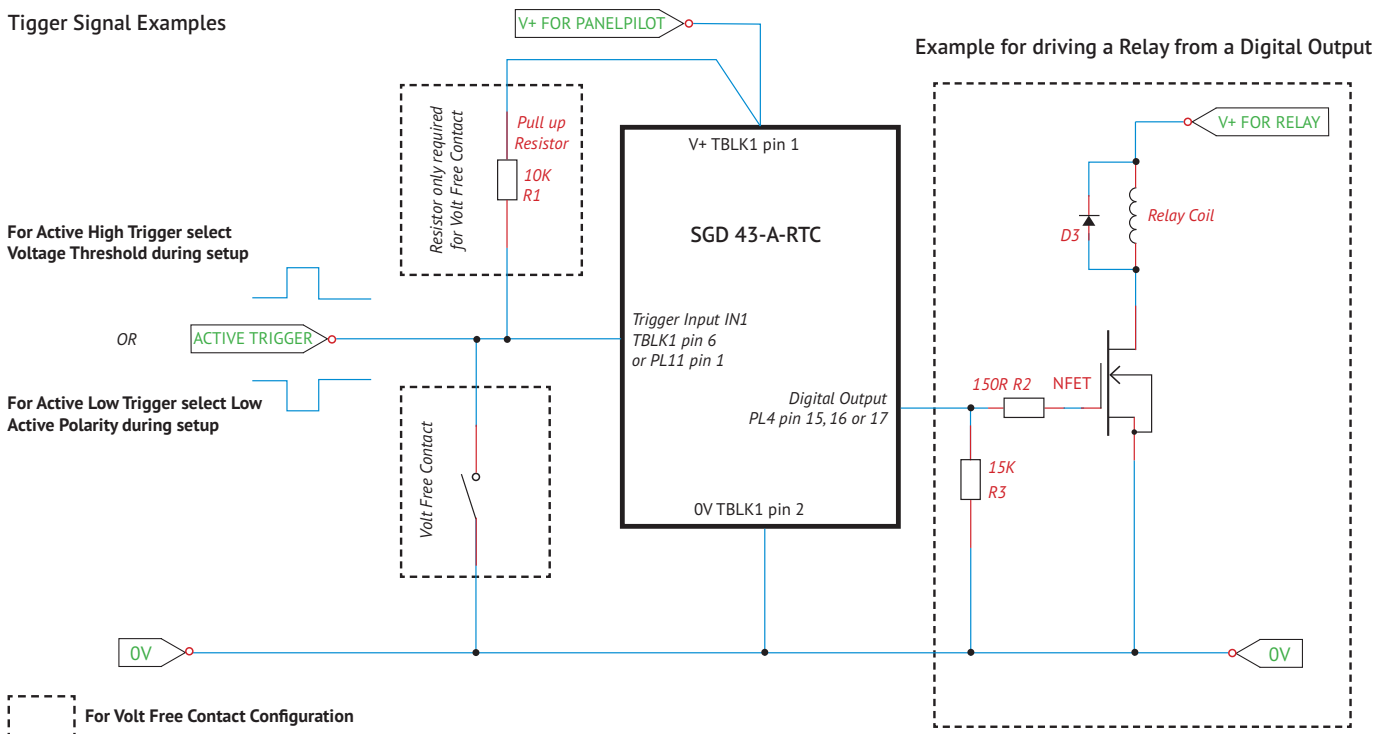
## Dimensions and Mounting

All dimensions are in mm (in)

Panel Cut-Out and Fitting

The panel cut-out is 117.0 x 78.0mm (4.6" x 3.07"). There are two mounting methods:

The first uses clips that protude from the plastic assembly and is suitable for panels between 1 and 3mm (0.04" and 0.12") in thickness.

The second method uses a rear mounting plastic bracket featuring grub screws for a more secure and adaptable fit. This second mounting method is suitable for panels between 0.5 and 4.0mm (0.01" and 0.15") in thickness.
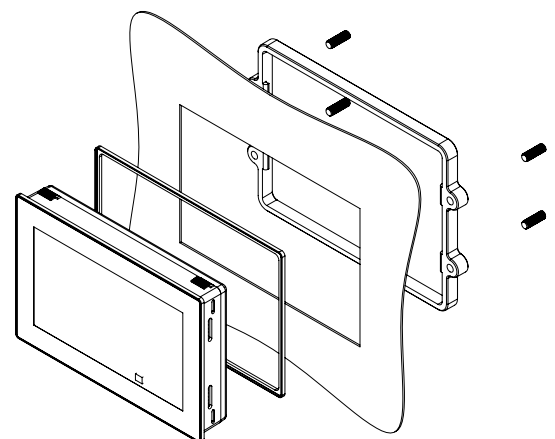
SGD 43-A Specifications

Display	4.3" TFT with 262k colours
Touchscreen	Capacitive
Resolution	480 x 272px
Processor	Freescale i.MX283 (454MHz, 32bit, ARM 9)
Analogue Inputs	4 x ±40V or 4-20mA (16bit ADC with 0.05% ±1mV typical accuracy*)
Digital I/O	8 x DIO, 2 x open-collector alarm outputs, 4 x 8 bit PWM outputs
Serial Buses	RS232, SPI**, I2C**
Expansion Boards*	RS485, Ethernet
Memory	1Gbit DDR2 SDRAM and 2GB SD card
Operating Temperature	0 to 40°C (32 to 104°F)
Supply	5 to 30V d.c. (400mA typical at 5V d.c.)
Outside Dimensions	119.3 (4.7) x 79.8 (3.1) x 20.0 (0.8) mm (in)

* For measurement ranges up to ±10V. ** Not currently available in Design Studio. *** Add-on boards sold separately.

PanelPilot

www.lascarelectronics.com

LASCAR electronics

SGD 43-A-RTC
Runtime Counter with 4.3" Capacitive Touch Display

Design Studio Software

The PanelPilotACE Design Studio software provides tools for advanced users who wish to customise the Runtime Counter. The appearance can be personalised and additional functionality or development can be added to create your own project.

Visit **www.lascarelectronics.com/software/panelpilotace or www.youtube.com/panelpilot** for further information including learning materials on getting started with this powerful drag-and-drop software suite.

www.lascarelectronics.com