### Artisan Controls Corporation





Randolph, New Jersey June 23, 2016

Artisan Controls Corporation, the leader in designing and manufacturing American Made Timers and Controllers for more than 50 years, is once again at the forefront of innovation and technology with the launch of its series of Capacitive Touch Switches (CTS™). The Artisan CTS™ is a unique solution for replacing electro-mechanical switches in harsh industrial, commercial or residential environments. The CTS™ uses the capacitive coupling of the human body to earth ground allowing it to sense the operator's touch through up to 10mm glass, plastic or membrane overlays. This technology allows the CTS™ to operate even when the user is wearing thick safety gloves.



The CTS™ has no accessible moving parts to wear out which greatly extends its useful life and reliability. And when the CTS™ is mounted behind a glass or plastic overlay, it becomes impervious to operator abuse, chemically hostile environments, hot cooking oils, food product spillage or abusive cleaning.

The CTS™ utilizes up to three (3) capacitive sensing buttons and incorporates up to four high power output relays to provide reliable switching operation for any application. It can be used as a Main Power (ON-OFF) Switch, ie a single pole normally open pushbutton for industrial or commercial equipment or as a double pole double throw toggle switch for more complex operations.

The CTS™ switching action is also fully programmable by the factory and can be configured to address almost any application, including "Delay On" or "Delay Off" timing functions, which standard electro-mechanical switches simply cannot do. It also has a control input which can be used for more sophisticated switch or timing functions.

Eventually, all mechanical switches and parts will fail, no matter how robust the materials or how well they are designed. Repetitive use inevitably wears down even the toughest components and this is particularly true with standard electro-mechanical switches common in industrial and commercial settings. Not so with Artisan's CTS<sup>TM</sup> switches which are an innovative solution to the problems and limitations commonly associated with standard electro-mechanical switches.

The CTS™ functionality is limited only by the imagination of its end user who is looking to upgrade to an incredible US made Nex-Generation reliable switch replacement. Coupled with Artisan's reputation for producing the highest quality products, with excellent service and competitive pricing and you have a winning solution.

Please contact us to schedule a demonstration of Artisan's incredible **Capacitive Touch Switch** or download the specifications for the **CTS™** at our website **www.artisancontrols.com**. We look forward to hearing from you.

#### **Artisan-We Control More Than Time!**

sales@artisancontrols.com

111 Canfield Avenue Bldg B-15 Randolph, New Jersey 07869 1-800-457-4050 (973) 598-9400 ex 14



## CTS

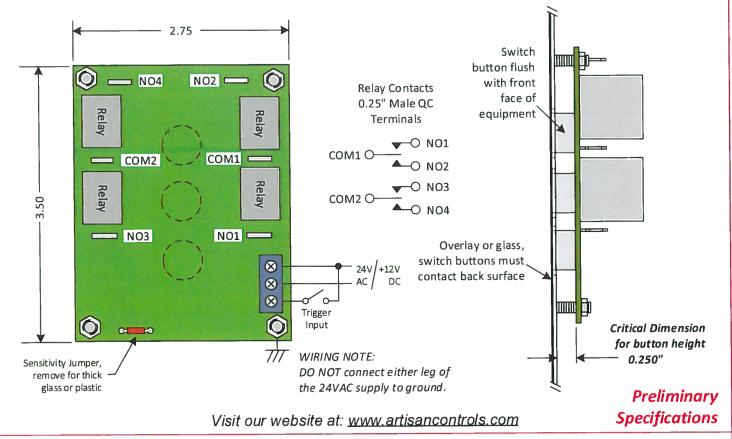
# Capacitive Touch Switch

The Artisan Capacitive Touch Switch is a unique solution for replacing electro-mechanical switches in harsh environments, it is mounted behind a metal or plastic front panel and is covered by a protective overlay, thus making it virtually impervious to misuse by the operator and contamination by the environment or frequent cleaning.

The CTS provides up to four high power output relays and three capacitive sensing buttons so it can provide reliable switching operation for any application ranging from a single pole normally open pushbutton up to a double pole double throw toggle switch. The switching action is fully programmable by the factory and can be configured for any application including those that standard electro-mechanical switches cannot perform.

#### **CAPACITIVE TOUCH TECHNOLOGY:**

The CTS uses the capacitive coupling of the human body to earth ground and can be sensed through up to 10mm of plastic or glass. The only requirement is good mechanical contact to the front face of the conductive sensing button. No moving parts to wear out so it is highly reliable and is impervious to cleaning, any residue left from improper cleaning, hot cooking oils, or food product spillage. This technology will respond to human touch even through thick gloves.



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Tel: 973-598-9400 Fax: 973-598-9410 Toll Free: 800-457-4950 Artisan Controls Corporation, 111 Canfield Ave., Bldg B15-18, Randolph, NJ 07869

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Model	-Poles -Buttons -Function -Volts		n -Volts	
стѕ	-1A -1C -2A -2C	-YYY Y=1 or 0 3 buttons = 111, etc	-(code)	blank = 24VAC/DC -12 = 12V DC

#### Pole Codes:

1A = Single pole normally open (SPNO) 1C = Single pole double throw (SPDT) 2A = Double pole normally open (DPNO)

2C = Double pole double throw (DPDT)

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#### **TOGGLE SWITCH:**

The graphic to the right shows an example used on a commercial fryer which requires a DPDT maintained toggle switch with a center off position to enable the users to fry food, filter the oil, or turn the system off. This application uses all three touch buttons and double pole double throw outputs. The function code for a maintained switch with center off is NFN (maintaiNed oFf maintaiNed). All three buttons are used so the buttons code is 111. The part number required here is: CTS-2C-111-NFN



#### MAIN POWER SWITCH:

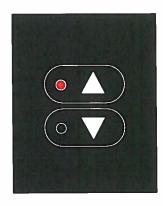
Another common application is the main power switch for a piece of equipment, for which we want the user to touch it once to be on and touch it again to be off. This type of function is called **ALT**ernating, the system only needs to switch one line so one pole and one switch is all that is required, the customer wants only the center button to be installed. That part number would be: **CTS-1A-010-ALT** 

An advanced version of this application would be where you want the user to touch *and* maintain their touch for 2 seconds before changing from off to on or on to off, that would be to ensure that cleaning or mistaken touches do not change the state of the machine. That function is Time Delay Alternating so that function code would be TDA followed by the time delay which would be 02. This part number: CTS-1A-010-TDA02



#### **UP / DOWN SWITCH:**

Our last application is for controlling up and down motion, where a momentary touch to start in the desired direction is all that is needed as the rest of the system takes care of stopping the action once it starts. This requires a single pole double throw output and two switch buttons. The function code for this would be Momentary Momentary, so the full part number would be: CTS-1C-110-MM.



#### **CUSTOM FUNCTIONS:**

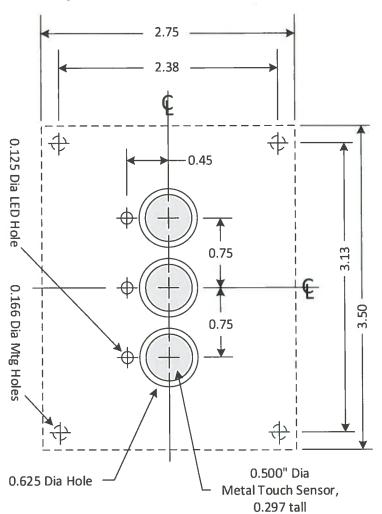
As the above examples show, Artisan can create any type of function including switching logic and timing for your application. All you need to do is provide us with a description of your application and we can make a switch that will do all the functions of your panel switch and more. The Trigger Input can be used for limit detection, thermostatic control, or standard single-shot or delay on break timing. We can also manufacture the CTS to operate on 12VDC, add a -12 to the part number

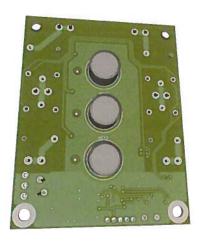
Preliminary Specifications

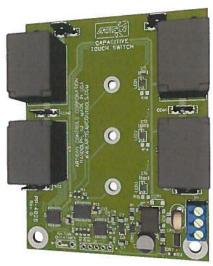
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Operating Voltage: 24V AC, ±20%, 50/60Hz, supplied by a transformer rated UL Class 2 minimum, 24VDC ±20%.

12V DC, ±20% optional

Operating Power: 1.8W - 75mA max @ 24VAC, 150mA max @ 12VDC.

Operating Modes: Any combination of momentary, maintained, alternating (push on / push off), time delay, and custom

functioning modes including those requiring a trigger input.

Touch Sensitivity: The CTS is delivered from the factory with the sensitivity jumper installed for plastic overlays and thin

glass coverings, remove the jumper for glass and/or plastic 1/8" thick or higher. Custom sensitivity

settings are available on volume orders.

Relay Output Rating: 15A resistive @ 250VAC.

Mounting: Four 0.166" diameter mounting holes.

Timing Accuracy: Better than ±2% Operating Temperature: 0°C to 70°C.

Construction: Open printed circuit board with conformal coating over sensitive circuitry. All connections are 0.25"

male QC terminals.

Data Sheet © and Date: June 23, 2016

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Preliminary Specifications

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