

## **Industrial and Medical Automation**

### **Product Selection Guide**

An Easy to Use Product Selection Guide

CTI Document 811671

Revision C

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## **Introduction**

CTI Electronics Corporation is the only company that designs, manufactures and sells a complete line of Industrial Automation and Medical quality computer peripherals. Because we design the products we sell, we provide direct support of all our products... before and after sale.

Each CTI product carries a 1-year warranty against defects, supported directly by the manufacturer.

## **The Man Machine Interface**

Today, many Industrial and Medical processes are controlled and/or monitored with the use of computer based systems. Whether this system is in the form of a Local Area Network (LAN), or a Single User Station, the User Interface is the means by which the operator controls the process, or communicates with the Company Wide Information/Quality Systems.

The quality of the control and the communications from any system user is a direct function of the Human Machine Interface (HMI). It is because of this reason that the performance of the User Interface (keyboard and/or pointing devices) is of extreme importance.

Most manufacturing and medical systems must be relied upon on a daily, hourly and minute to minute basis. Each working environment has its own properties. Certain environments are dirty and oily (as in a production facility) while others are ultra-clean (as in a laboratory or medical environment). Each of these unique applications place special demands on computer input devices.

The computer-input devices must be capable of withstanding the rigors of the harsh environment as well as the subsequent sterilization or sanitizing. All UL and Medical industry standards are attained without sacrificing reliability and functionality to the user.

CTI Electronics Corporation products provide your Operators' Interface with Reliability, Long Life, and Durability.

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## Sealed Industrial and Medical Keyboards: NEMA 4X and NEMA 4 (IP 66) Sealing

### Overview

CTI Electronics Corporation offers a complete line of NEMA 4 Sealed Keyboards for use in Industrial Automation and Medical applications. Keyboard sizes range from a normal full size KI9000 Series, to the mid-sized KI8000 Series, and even a miniature KI6000 Series. There is a NEMA rated Sealed Keyboard for every application, both with or without an industrial mouse pointer like the **original** Industrial Mouse®, Arrow Mouse™, or Orbital Mouse™ pointers.

All CTI Electronics Sealed Industrial / Medical Keyboards have the following features:

- § Full 101/104 key functionality. (Compatible with all Windows applications)
- § Individual full size keys with hard *gold plated contacts* rated at 10MM operations.
- § [NEMA 4X, NEMA 4 and IP \(66\) Sealing Rated.](#)
- § Port Compatibility with any PC. (No software drivers required)
- § Mounted to any workstation, either horizontally or vertically, with integral sealed mounting boss (es).
- § Gold Plated Printed Circuit Boards for High Reliability and Durability.
- § Can be private labeled for OEM requirements.

### KI9000 Series Full Size Industrial and Medical Keyboards

KI9000 Series Sealed Keyboard, NEMA 4X

KIF9000 Series Sealed Keyboard, Industrial Mouse®, NEMA 4X

KIA9000 Series Sealed Keyboard, Arrow Mouse™, NEMA 4X

KIO9000 Series Sealed Keyboard, Orbital Mouse™, NEMA 4X

The Model Number KI9000 Series is a full size Industrial / Medical Keyboard with a separate numeric keypad arranged much like the standard desktop keyboard found in many office environments. This keyboard measures 16.5" x 8" (keyboard alone and with Arrow Mouse) or 20" x 8" (keyboard with Industrial Mouse or Orbital Mouse), and has the following unique features:

**F13-F24 Keys:** The Model Number KI9000 Series include the *F13-F24 Keys*, which provide the extra functionality often required in Industrial and Medical Applications. The F13 through F24 keys are factory programmed to transmit an "*SHIFT F<sub>n</sub>*" string when pressed (See F13 – F24 String Table Below). If your application requires a *custom string*, the F13 through F24 keys will be factory programmed.

Standard Factory Programmed Strings for F13- F24 Keys are shown below.

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## Function Keys: Standard Factory Programmed Strings

Key	String Transmitted	Key	String Transmitted
F13	"SHIFT-F1"	F19	"SHIFT-F8"
F14	"SHIFT-F2"	F20	"SHIFT-F9"
F15	"SHIFT-F3"	F21	"SHIFT-F10"
F16	"SHIFT-F4"	F22	"SHIFT-F11"
F17	"SHIFT-F5"	F23	"SHIFT-F12"
F18	"SHIFT-F6"	F24	"SHIFT-F13"

The Industrial Mouse® (joystick style) has been a registered trademark since 1989, when it was first introduced as the original industrial computer mouse pointing device. These pointing devices are accepted as a world benchmark standard. Many communication interfaces have been developed over the years including RS-232, PS/2, USB, AT, SUN, DEC, Apple, & others.

The innovative Arrow Mouse™ (Patented and Trademarked) pointing device is available with the KIA9000 Series. The Arrow Mouse™ is drift free, is rated for 10MM operations, and adds no size to the overall dimensions of the standard unit.

This is ideal for the addition of a reliable sealed pointing device to any application where the selection of an ICON or drop down Menu on screen is required, and space is at a premium.

An added benefit is that the Arrow Mouse™ allows the Windows® or NT® system to boot up properly, removing the added expense of adding extra "mouse substitute" hardware to your design to satisfy system boot or carrying a portable mouse for your system setup or service requirements.

The Orbital Mouse™ (button style) is a unique market driven design for those applications requiring a rugged pointer with a low profile while providing a NEMA 4 sealing. The Orbital Mouse™ is drift free, has variable speed control, and is rated for 10MM operations. Typical usages have been found in areas where the pointing device has a low frequency of operation or a secondary pointing device.

OEM versions are available: [KI9800 OEM Keyboard](#) and [KIA9800 OEM Keyboard](#)

### **KI8000 Series Mid-Size Industrial and Medical Keyboards**

KI8000 Series Sealed Keyboard, NEMA 4X

KIF8000 Series Sealed Keyboard, Industrial Mouse®, NEMA 4/4X

KIO8000 Series Sealed Keyboard, Orbital Mouse™, NEMA 4/4X

The KI8000 Series Industrial and Medical Keyboard include all of the operational features of the KI9000 Series keyboards, but without the separate numeric keypad and the F13 through F24 keys. This provides a NEMA 4X Sealed keyboard with an overall length of 13" X 8" (keyboard only) or 16.5" X 8" (keyboard, Industrial Mouse®) with full 101/104 key functionality.

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An OEM version is available: [KI8800 OEM Keyboard](#)

## **KI7000 Series Mid-Size Industrial and Medical Keyboards**

KIO7000 Series Sealed Keyboard, Orbital Mouse®, NEMA 4/4X

KIO7000-Bx Series Sealed Keyboard, Orbital Mouse®, NEMA 4/4X, Illuminated

The KIO7000 Series Industrial and Medical Keyboard include a separate numerical keypad and the F1 through F12 function keys. This provides a NEMA 4/4X Sealed keyboard with an overall length of 12.3" X 6.1" with full 101/104 key functionality.

An OEM version is available: [KIO7800 OEM Keyboard](#)

## **KI6000 Series Miniature Industrial and Medical Keyboards**

KI6000 Series Sealed Keyboard, NEMA 4

KI6000-Bx Series Sealed Keyboard, NEMA 4, Illuminated

KI6600 Series Sealed Keyboard, NEMA 4X

KI6600-Bx Series Sealed Keyboard, NEMA 4X, Illuminated

KIA6000 Series Sealed Keyboard, Arrow Mouse™, NEMA 4

KIA6000 Series Sealed Keyboard, Arrow Mouse™, NEMA 4, Illuminated

The KI6000 Series Miniature Sealed Keyboard provides full 101/104 key functionality in a sealed enclosure with a footprint of only 8.7" X 6.15".

Each of the keys are of the Model Number KI6000 Series are full sized and identical to the keys on the larger KI9800 and KI8800 Series keyboards, but through efficient use of key spacing and layout, full Windows® functionality is retained in a much smaller overall footprint.

The innovative Arrow Mouse™ (Patented and Trademarked) pointing device is also available with the KIA6800 Series. The Arrow Mouse™ is drift free, is rated for 10MM operations, and adds no size to the overall dimensions of the standard unit. This is ideal for the addition of a reliable sealed pointing device to any open frame or PC design. An added benefit is that the Arrow Mouse™ allows the Windows® or NT® system to boot up properly, removing the added expense of adding extra "mouse substitute" hardware to your design to satisfy system boot or carrying a portable mouse for your system setup or service requirements.

The KI6000 Miniature Keyboard is also available with either red or green back lighting. The KI6800-Bx Series has high efficiency LED's with 10 intensity levels that are keyboard controlled and powered from the PS/2 port.

OEM versions are available: [KI6800 OEM Keyboard](#) and [KIA6800 OEM Keyboard](#)



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## Sealed Keyboard Options

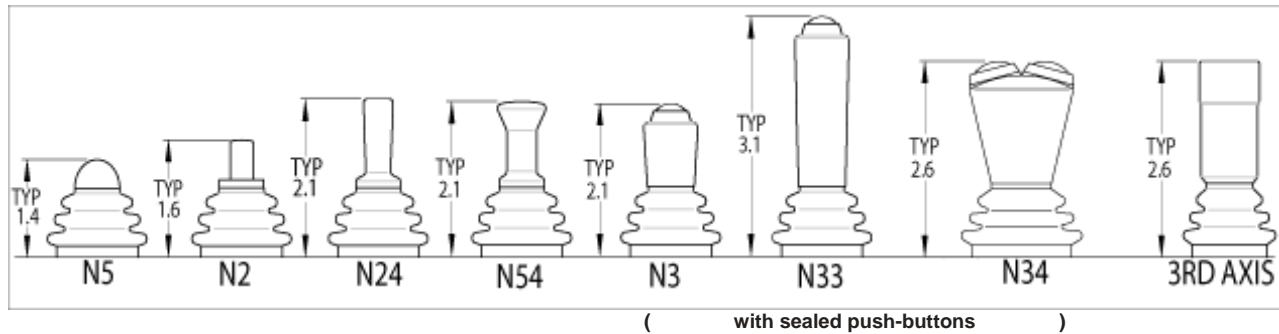
### Handle Options for Keyboards with the Industrial Mouse®

The Industrial Mouse may be supplied with any of eight (8) different handle styles.

These styles are depicted below.

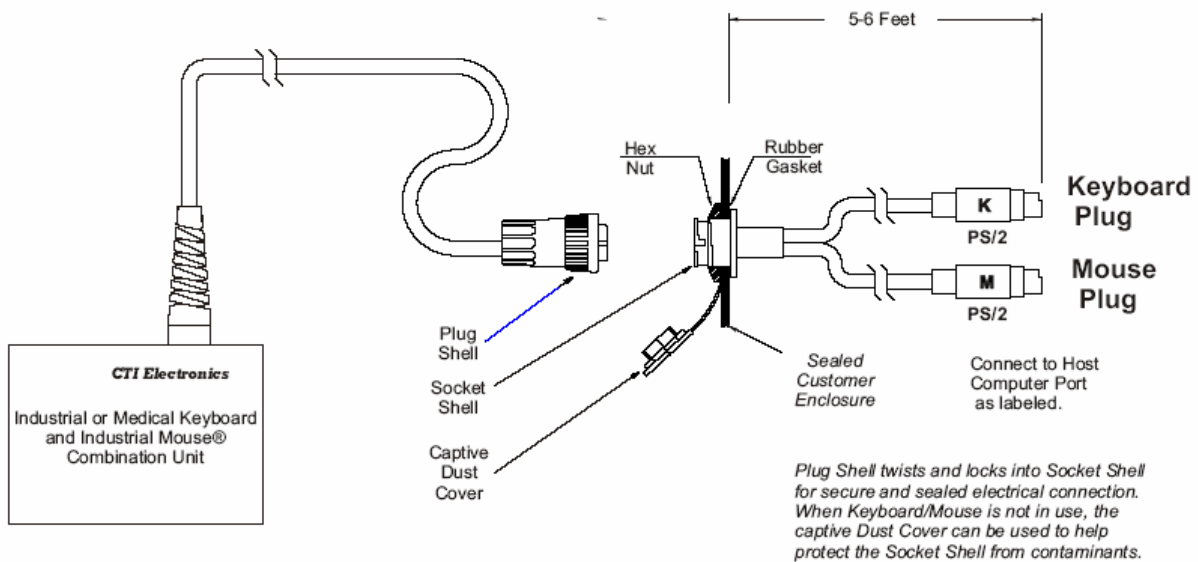
The industry exclusive "N3" handle provides a sealed pushbutton at the top that functions as a "Left Mouse Button" for easy one handed point and click operations.

### Joystick Handle Options for the CTI Electronics Industrial Mouse®



### Keyboard-Mouse Waterproof through Panel Bulkhead Connector ("W" Option)

All CTI Sealed keyboards can be fitted with a waterproof through panel connector that allows the sealed transition of the keyboard and/or mouse cable from a dirty environment (where the keyboard is located) to a clean environment (where the PC or host controller is located).



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## **Communication Interface**

CTI has developed many communication interfaces including RS-232, PS/2, USB, AT, SUN, DEC, Apple, as well as proprietary protocols for customer specific applications.

## **Enclosure Type**

Standard enclosure types have been either aluminum or stainless steel. Other materials can also be used such as hardened plastic.

## **Keyboard Language**

English Keyboard (QWERTY), Spanish Keyboard, French Keyboard (AZERTY), German Keyboard (QWERTZ), and other languages are available upon request.

## **Custom Keyboards**

Any of the standard Industrial and Medical Keyboard configurations and functions can be combined to provide a Custom Sealed Keyboard Solution for any OEM Design.



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## Sealed Industrial and Medical Keyboard Product Selection Matrix

Model Number	Description	CTI Drawing
<b>NEMA 4 / IP(66) Keyboard Only</b>		
KI90P0	<a href="#">Industrial-Medical Keyboard, 116 Key, Numeric Keypad, 24 Function Keys, PS/2 Interface</a>	<a href="#">761681</a>
KI98U0	<a href="#">OEM Industrial-Medical Keyboard, 116 Key, Numeric Keypad, 24 Function Keys, USB Interface</a>	<a href="#">761770</a>
KI80P0	<a href="#">Industrial-Medical Keyboard, 87 Keys, 12 Function Keys, PS/2 Interface</a>	<a href="#">761693</a>
KI88U0	<a href="#">OEM Industrial-Medical Keyboard, 87 Keys, 12 Function Keys, USB Interface</a>	<a href="#">701672</a>
KI66P0	<a href="#">Industrial-Medical Keyboard, Miniature, 69 Keys, 12 Function Keys, PS/2 Interface</a>	<a href="#">761724</a>
KI60T0	<a href="#">Industrial-Medical Keyboard, Miniature, 69 Keys, 12 Function Keys, AT Interface</a>	<a href="#">761724</a>
KI68P0-BR	<a href="#">OEM Industrial-Medical Keyboard, Miniature, 69 Keys, 12 Function Keys, Backlit Red, PS/2 Interface</a>	<a href="#">761751</a>
KI60U0-BG	<a href="#">Industrial-Medical Keyboard, Miniature, 69 Keys, 12 Function Keys, Backlit Green, USB Interface</a>	<a href="#">761750</a>
<b>NEMA 4X Keyboard &amp; Industrial Mouse®</b>		
KIF90P9-Nx-3B*	<a href="#">Industrial-Medical Medical Keyboard w/ Industrial Mouse, 116 keys, 24 Function Keys, Numeric Keypad, PS/2 Interface</a>	<a href="#">761692</a>
KIF80P9-Nx-3B*	<a href="#">Industrial-Medical Medical Keyboard w/ Industrial Mouse, 87 keys, 12 Function Keys, PS/2 Interface</a>	<a href="#">761717</a>
<b>NEMA 4X Keyboard &amp; Arrow Mouse™</b>		
KIA90P0	<a href="#">Industrial-Medical Keyboard w/ Arrow Mouse, 116 keys, 24 Function Keys, Numeric Keypad, PS/2 Interface</a>	<a href="#">761752</a>
KIA60P0	<a href="#">Industrial-Medical Keyboard w/ Arrow Mouse, Miniature, 69 Keys, 12 Function Keys, PS/2 Interface</a>	<a href="#">761728</a>
KIA68U0	<a href="#">OEM Industrial-Medical Keyboard w/ Arrow Mouse, Miniature, 69 Keys, 12 Function Keys, USB Interface</a>	<a href="#">761729</a>
KIA66U0-BG	<a href="#">Industrial-Medical Keyboard w/ Arrow Mouse, Miniature, 69 Keys, 12 Function Keys, Backlit Green, USB Interface</a>	<a href="#">761750</a>
<b>NEMA 4/4X Keyboard &amp; Orbital Mouse™</b>		
KIO70P0	<a href="#">Industrial-Medical Keyboard w/ Orbital Mouse, 90 Keys, 12 Function Keys, Numeric Keypad, PS/2 Interface</a>	<a href="#">761766</a>
KIO78U0	<a href="#">Industrial-Medical Keyboard w/ Orbital Mouse, 90 Keys, 12 Function Keys, Numeric Keypad, USB Interface</a>	<a href="#">761767</a>
KIO70U0-BR	<a href="#">Industrial-Medical Keyboard w/ Orbital Mouse, 90 Keys, 12 Function Keys, Numeric Keypad, Backlit Red, USB Interface</a>	<a href="#">761766</a>
KIO80P0	<a href="#">Industrial-Medical Keyboard w/ Orbital Mouse, 87 Keys, 12 Function Keys, PS/2 Interface</a>	<a href="#">761760</a>
KIO90P0	<a href="#">Industrial-Medical Keyboard w/ Orbital Mouse, 116 Keys, 24 Function Keys, Numeric Keypad, PS/2 Interface</a>	<a href="#">761759</a>
<b>Waterproof through Panel Bulkhead Connector</b>		
"W" Option	Add "W" to Model Number (Please consult factory)	<a href="#">820029</a> <a href="#">820030</a>

\*Please select any one of the Industrial Mouse handle types, and substitute that number in place of "x".

## Industrial Mouse® and USB FlightStick: NEMA 4/4X (IP66) Sealing

### Overview

The Original Industrial Mouse® was conceived, designed and is still manufactured only by CTI Electronics Corporation. Based on the CTI Analog Inductive Joystick, the Industrial Mouse added computer Port-Compatibility to the joystick to provide unequalled mouse port control for any/all applications. Its design features Zero drift, a reliable repeatable output, and the ability to make minor cursor adjustments down to one pixel at a time, making the CTI Industrial Mouse the best choice for operator interface for most applications.

The USB FlightStick is a recent design allowing application developers to use standard operating system USB Device Drivers and Joystick (Gaming) Control Devices Drivers to select and operate computer controllable equipment (e.g. camera, robot, airplane drone, imaging, etc.). CTI offers another first of its kind with an [Extended USB FlightStick](#) which allows USB communication at lengths up to 150 feet rather than the protocol standard of 9 feet.

### Features of all CTI Electronics Industrial Mouse and USB FlightStick products

- No moving electrical parts or magnets
- Sealed to NEMA 4 (IP66)
- Solid stainless steel shaft
- 8 speed curves
- 1 year warranty from the factory
- Port Compatible - needs no software drivers

### Available Mouse Protocols

The following mouse protocols may be provided with the CTI Electronics Industrial Mouse.

- PS/2 (Windows and NT Compatible)
- ABD (Apple)
- DEC (Digital Equipment)
- HPIL (Hewlett Packard)
- Sun Microsystems
- USB (either v1.1 or v2.0)

### [M9000 Series Industrial Mouse® and USB FlightStick, Workstation or Desktop](#)

The Workstation or Desktop variety of the Industrial Mouse provides a rugged and durable NEMA 4X rated sealed Stainless Steel enclosure that provides unequalled service. The enclosure includes threaded and sealed mounting bosses to allow the easy securing of the Industrial Mouse to the workstation surface.

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## M2000 Series Industrial Mouse® and USB FlightStick, Handheld

The Hand Held variety of the Industrial Mouse is also enclosed in the same NEMA 4X Stainless Steel enclosure, but in a smaller package for those applications where space and or weight is critical.

An anodized aluminum Industrial Mouse Holder is available for the storage of the Hand Held Industrial Mouse. This Industrial Mouse Holder can be mounted permanently to the side of a machine or on a pendant.

OEM versions are available: [F10X0 Series OEM Industrial Mouse or USB FlightStick](#) and [F80X0 Series OEM Industrial Mouse or USB FlightStick](#)

## **M9000 and M2000 Orbital Mouse™ Option**

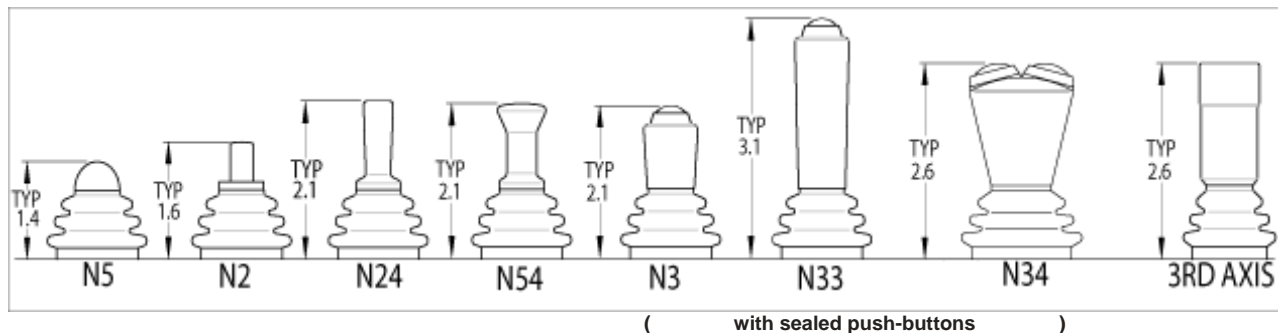
[M9000 Series Orbital Mouse](#) and [M2000 Series Orbital Mouse](#) are button style pointers.

## **M9000 and M2000 Industrial Mouse® and USB FlightStick Options**

### **Handle Options – Industrial Mouse and USB FlightStick**

Eight Handle options are available with the Industrial Mouse and USB FlightStick. One of the most popular handles is the sealed "N3" knob, which provides a sealed pushbutton on the top that duplicates the function of the "Left Mouse Button" for the Industrial Mouse. Or, the industry exclusive "N34" knob provides a means of actuating both the left and right mouse button, and allows for one-handed point and click operation. The selection of the mouse button will depend on your particular application, and the requirements of your operators.

### Joystick Handle Options for the CTI Electronics Industrial Mouse® and USB FlightStick



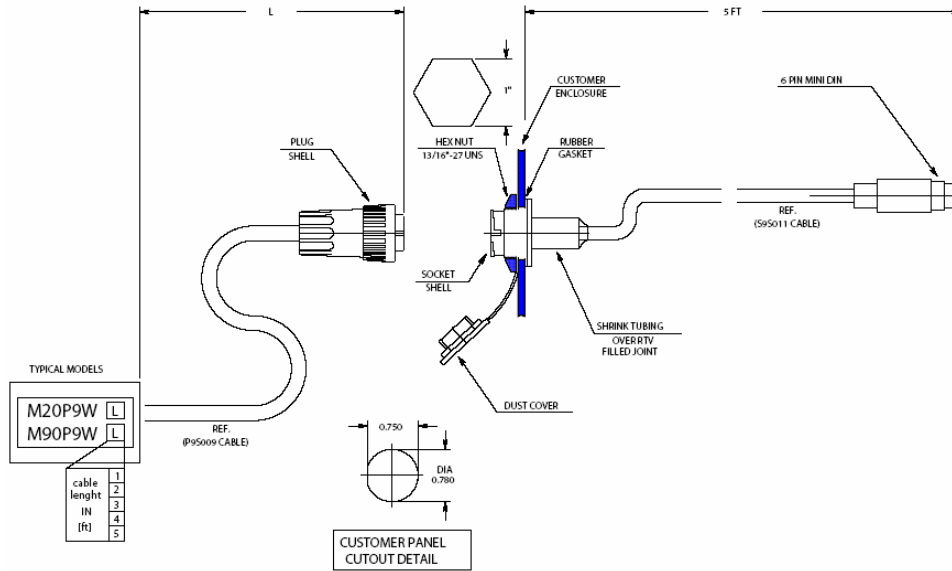
## M9000-M2000 Waterproof through Panel Bulkhead Connector ("W" Option)

All CTI sealed keyboards can be fitted with a waterproof through panel connector that allows the sealed transition of the keyboard and/or mouse cable from a dirty environment (where the pointing device is located) to a clean environment (where the PC or host controller is located).

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## M2000 Holder

The M2000 series of Hand Held computer mouse pointers and computer input devices offers an anodized aluminum holder having pre-drilled mounting holes for easy panel mounting. This precision machined cradle is designed for rugged environments, allowing the operator a place of convenient storage for the M2000 series of Hand Held computer mouse pointers and industrial computer input devices; the Industrial Mouse®, Orbital Mouse™, & USB FlightStick.

### Industrial Mouse®, Orbital Mouse™, and USB FlightStick Product Selection Matrix

Model Number	Description	CTI Drawing
	<b>NEMA 4X (IP66) Hand Held Mouse and Flight Stick</b>	
M20P9-Nx-3B*	<a href="#">Industrial Mouse® w/ joystick, PS/2 Interface</a>	<a href="#">761672</a>
M20U9-Nx-3B*	<a href="#">Industrial Mouse® w/ joystick, USB Interface</a>	<a href="#">761672</a>
M20P9-OM	<a href="#">Orbital Mouse™, button style, PS/2 Interface</a>	<a href="#">761758</a>
M20U9-OM	<a href="#">Orbital Mouse™, button style, USB Interface</a>	<a href="#">761758</a>
M20U9T-Nx-3B*	<a href="#">Industrial Flight Stick w/ joystick, USB Interface</a>	<a href="#">761672</a>
	<b>M2000 Holder</b>	
761727	<a href="#">M2000 Holder</a>	<a href="#">761727</a>
	<b>NEMA 4X (IP66) Desktop Mouse and Flight Stick</b>	
M90P9-Nx-3B*	<a href="#">Industrial Mouse® w/ joystick, PS/2 Interface</a>	<a href="#">761689</a>
M90U9-Nx-3B*	<a href="#">Industrial Mouse® w/ joystick, USB Interface</a>	<a href="#">761689</a>
M90P9-OM	<a href="#">Orbital Mouse™, button style, PS/2 Interface</a>	<a href="#">761757</a>
M90U9-OM	<a href="#">Orbital Mouse™, button style, USB Interface</a>	<a href="#">761757</a>
M90U9T-Nx-3B*	<a href="#">Industrial Flight Stick w/ joystick, USB Interface</a>	<a href="#">761689</a>
	<b>Waterproof through Panel Bulkhead Connector</b>	
"W" Option	Add "W" to Model Number (Please consult factory)	<a href="#">761720</a>

\*Please select any one of the Industrial Mouse handle types, and substitute that number in place of "x".



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## **High Reliability Industrial Trackballs**

### Overview

CTI trackballs are designed from the ground up for military and aerospace grade applications where high quality and performance are required. A formed Teflon ring floating in a metal collar rejects contaminants and moisture. The roller-ball rides on hardened stainless steel rollers and precision quality sealed bearings which produce a smooth and uniform movement. Our redundant photo transistors, an industry first, guarantee a consistent output. The full travel switches give excellent tactile feedback and gold plated contacts are rated for 5MM operations.

CTI trackballs are available in panel mount, OEM sub-assembly, or in an aluminum enclosure for workstation use.

## **Panel Mounted High Reliability Industrial Trackballs**

Available interfaces include quadrature, pulse and direction, and all computer mouse emulations. Models with an interface PCB are available in RS232, RS422, TTL, quadrature, and PS/2 as well as custom versions.

**T1000 Series Panel Mounted 2.0" Trackball**

**T4000 Series Panel Mounted 3.0" Trackball**

**T6000 Series Panel Mounted 1.3" Trackball**

**T7000 Series Panel Mounted 1.5" Trackball**

**T10X3 Series Panel Mounted 2.0" Trackball with 3 switches**

**T40X3 Series Panel Mounted 3.0" Trackball with 3 switches**

**T70X3 Series Panel Mounted 1.5" Trackball with 3 switches**

## **OEM High Reliability Industrial Trackball Sub-Assembly**

Available interfaces include quadrature, pulse and direction, and all computer mouse emulations. Models with an interface PCB are available in RS232, RS422, TTL, quadrature, and PS/2 as well as custom versions.

**T6XXX Series 1.3" Trackball OEM Sub-Assembly**

**T7XXX Series 1.5" Trackball OEM Sub-Assembly**

**T1XXX/T8XXX Series 2.0" Trackball OEM Sub-Assembly**



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## High Reliability Trackballs for Workstation or Desktop

This desktop model with a 2" diameter industrial trackball mouse was designed specifically for precision movement control of critical applications in the areas of aviation, radar systems, and medical instrumentation. These computer mouse pointers are built rugged and heavy in design to resist accidental movement of the unit. It has an ergonomic design making long duration usage possible for the operator.

### **T80X3 Series**

Enclosure Mounted 2" Trackball, PS/2 mouse port compatible.

#### High Reliability Trackball Product Selection Matrix

Model Number	Description	CTI Drawing
	<b>T1000 Series Panel Mount Trackball</b>	
T10P0	<a href="#">2.0" Industrial Trackball, aluminum enclosure. Mouse port compatible, PS/2 Interface</a>	<a href="#">761128</a>
	<b>T4000 Series Panel Mount Trackball</b>	
T40P0	<a href="#">3.0" Industrial Trackball, aluminum enclosure. Mouse port compatible, PS/2 Interface</a>	<a href="#">761205</a>
	<b>T6000 Series Panel Mount Trackball</b>	
T6000	<a href="#">1.3" Industrial Trackball, aluminum enclosure. Quadrature Interface</a>	<a href="#">761064</a>
	<b>T7000 Series Panel Mount Trackball</b>	
T7000	<a href="#">1.5" Trackball, aluminum enclosure. Quadrature Interface</a>	<a href="#">761124</a>
	<b>T10X3 Series Panel Mount Trackball with 3 Switches</b>	
T10P3-3B	<a href="#">2.0" Industrial Trackball, aluminum enclosure. Mouse port compatible, PS/2 interface</a>	<a href="#">761662</a>
	<b>T40X3 Series Panel Mount Trackball with 3 Switches</b>	
T40P3-3B	<a href="#">3.0" Industrial Trackball, aluminum enclosure. Mouse port compatible, PS/2 interface</a>	<a href="#">761266</a>
	<b>T70X3 Series Panel Mount Trackball with 3 Switches</b>	
T70P3-3B	<a href="#">1.5" Industrial Trackball, aluminum enclosure. Mouse port compatible, PS/2 interface</a>	<a href="#">761258</a>
	<b>T6XXX Series - 1.3" OEM Trackball Sub-Assembly</b>	
T6XXX	<a href="#">1.3" Industrial Trackball, Quadrature Interface</a>	<a href="#">761746</a>
	<b>T7XXX Series - 1.5" OEM Trackball Sub-Assembly</b>	
T7XXX	<a href="#">1.5" Industrial Trackball, Quadrature Interface</a>	<a href="#">761698</a>
	<b>T1XXX Series - 2.0" OEM Trackball Sub-Assembly</b>	
T1XXX/T8XXX	<a href="#">2.0" Industrial Trackball, Quadrature Interface</a>	<a href="#">761644-1</a> <a href="#">761644-2</a>
	<b>T80X3 Series Workstation or Desktop Trackball</b>	
T80P3-3B	<a href="#">2.0" Industrial Trackball Mouse, PS/2 interface, aluminum enclosure</a>	<a href="#">761470</a>



ELECTRONICS CORPORATION  
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# **Industrial and Medical Automation Product Selection Guide**

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## **Handling Precautions for Static Sensitive Devices**

All CTI Electronics products contain static sensitive devices. Use appropriate static precautions when handling and installing these products.

## **NEMA 4 Installations**

All CTI Electronics Industrial and Medical Automation Products listed in this handbook (with the exception of trackball products) are NEMA 4X or NEMA 4 (IP66) sealing rated. Please refer to the applicable [CTI Drawings](#) for individual specifications.

Please contact CTI Electronics for details on the applications of all our Industrial/Medical products.

## **How to contact CTI Electronics Corporation**

CTI Electronics Corporation designs and builds the best operator input devices available on the market today. We are proud of our quality, and our customer support.

All our Technical Support, Warranty Support and Customer Service support originates from our Engineering, Sales and Manufacturing facility in Stratford Connecticut.

[Contact CTI Electronics Corporation at:](#)

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