



An Affiliate of ELECTRO SWITCH

# KIO7000-BX Industrial Keyboard

NEMA 4X (IP66) PLUG-N-PLAY INDUSTRIAL KEYBOARD WITH ORBITALMOUSE®

## KIO7000-BX INDUSTRIAL KEYBOARD WITH ORBITAL MOUSE®

CTI's KIO7000-BX Series Industrial Keyboards are comprised of a durable Printed Circuit Board (PCB) with two metal stiffener brackets, a rubber silicone Elastomer, the Orbital Mouse® (Button Style Cursor Controller), and an optional USB cable. The PCB is designed for protection against electromagnetic and radio frequency interference as well as electro static discharges. Upon the PCB is a layer of hard plated gold used for the switching contacts of the Keys. Molded under each Key of the Elastomer are four hard carbon pill contacts which provide reliability and durability. This Elastomer features a time tested durometer that provides an ergonomic key stroke with excellent tactile feedback. It also includes a special molded O-Ring which compresses to ensure a watertight seal. In addition, the Elastomer has been treated with a thermally infused silicone ink to create the QWERTY legend and then sealed through CTI's special formulated flexible polyurethane coating process (Syn-Proof™). Lastly, installation is easy since the Elastomer has bosses which hold the PCB assembly together, thus no messy glue or sealers are required.

The NEMA 4X (IP66) sealing Industrial Keyboards are most suitable for critical applications requiring high durability (10+ years), high reliability (99.999% availability), and/or ensured performance under extreme operating temperatures, exposure to harsh climate conditions, and/or solid and liquid contaminants. It's well protected against high vibration, EMI/RFI signals, bio-hazardous agents, and cleaning solvents. This mid-size keyboard with its shallow depth below panel minimizes area requirements. Integrated into the keyboard is the Orbital Mouse® which offers eight (8) levels of cursor speed control. Finally, for those low level lighting situations, the backlit KIO7800-BX Series offers ten levels of illumination.

These Industrial Keyboards are offered to Original Equipment Manufacturers as an open frame module with exposed electrical components that requires mounting and encasement. The properly positioned through holes of the PCB and Elastomer will ensure a NEMA 4X (IP66) watertight sealing over a broad operating temperature range when fastened into a metal enclosure. The combined features of the Industrial Keyboards meet and/or exceed industry standards specifications.

## KIO7000-BX MANUFACTURING OPTIONS

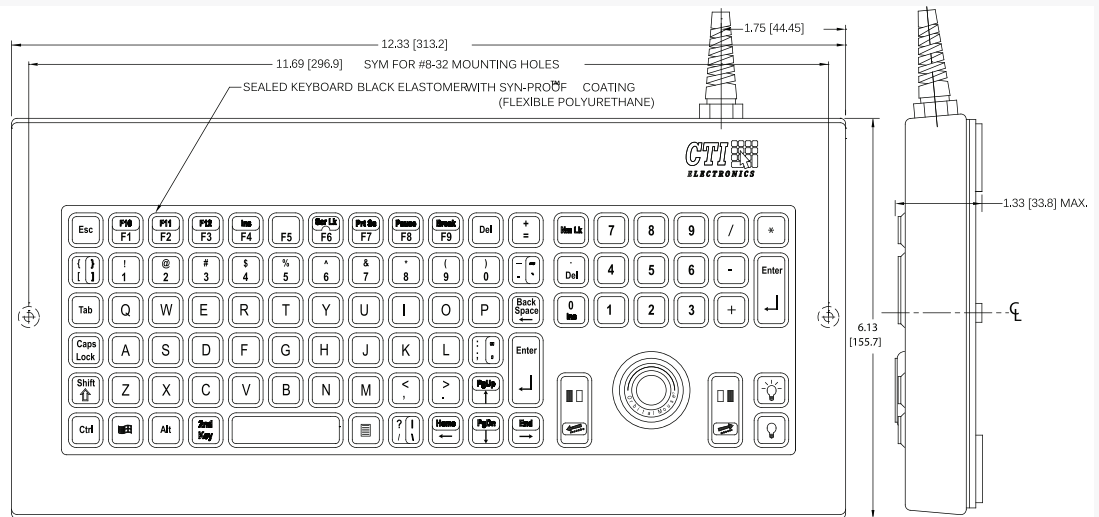
<a href="#">Wx</a>	Shielded USB Bulkhead Cable (1 Foot to 5 Feet)
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\*For complete ordering information please refer to Technical Drawings

## KIO7000-BX TECHNICAL DRAWINGS

[761766](#) [KIO7000-BX Plug-n-Play Industrial Keyboard with Orbital Mouse® Pointer](#)

## KIO7000-BX INDUSTRIAL KEYBOARD WITH ORBITAL MOUSE® TECHNICAL DRAWING



See CTI Technical Drawing [761766](#)

## ORBITAL MOUSE® PATENT

U.S.A. PATENTS [7,499,032](#) U.S.A. PATENT PENDING [12/344368](#)

performance

durability

reliability



• Shown above KIO74U4-BR Industrial Keyboard with Orbital Mouse®



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# KIO7000-BX Industrial Keyboard

NEMA 4X (IP66) PLUG-N-PLAY INDUSTRIAL KEYBOARD WITH ORBITALMOUSE®

## MINIATURE AND COMPACT INDUSTRIAL KEYBOARD COMPARISON CHART

	KI6000	KIF6000	KIO6000	KIO7000	KIT6000
Dimensions (Inches)	8.70" x 6.13" x 1.33"	11.27" x 6.13" x 1.57"	8.70" x 6.13" x 1.33"	12.33" x 6.13" x 1.33"	11.27" x 6.13" x 1.57"
Dimensions (mm)	221 x 155.7 x 33.8mm	286.3 x 155.7 x 39.9mm	221 x 155.7 x 33.8mm	313.2 x 155.7 x 33.8mm	286.3 x 155.7 x 39.9mm
Stainless Steel   Oz (g)	40 Oz (1134g)	55 Oz (1600g)	40 Oz (1134g)	59 Oz (1700g)	55 Oz (1600g)
Aluminum   Oz (g)	21.7 Oz (610g)	32 Oz (900g)	22.5 Oz (638g)	35 Oz (1000g)	32 Oz (900g)
Mouse Pointer		Industrial Mouse™	OrbitalMouse®	OrbitalMouse®	Industrial Trackball
Numeric Keypad			Yes (Non-Backlit)	Yes	
Function Keys	12	12	12	12	12
Language Options	US QWERTY (Standard) See Technical Drawing for Specific Language Options				
Total Keys	69 Keys	69 Keys	71 Keys	90 Keys	69 Keys
Key Travel	2mm travel with excellent tactile feedback				
Backlighting	Red, Green (NVIS - Special Order)				
Sealing	NEMA 4X (IP66)				NEMA 12 (IP54)

## KIO7000-BX SPECIFICATION

KIO7000-BX Measurements	Width: 12.33" (313.2mm)	Height: 6.13" (155.7mm)	Depth: 1.33" (33.8mm)	Weight: 49 Oz (1700g) Stainless
Operating Systems	Microsoft Windows® Operating System (Windows XP, Windows 7, Windows 8, Windows 10)			
	Mac OS X® or Linux OS requires compliant USB Device Class Definition for Human Interface Devices 1.11			
Standard Driver	Windows OS USB Composite Driver (does not allow interrupt of OS boot process for BIOS)			

## KIO7000-BX ELECTRICAL SPECIFICATION

MTBF	Greater than 100,000 hours		
Cabling	Shielded USB Cable (9.5 feet) (Standard)	Shielded USB Bulkhead Cable Set (W1 - W5) (Optional)	
Ground Connection	Yes		
EMI/RFI Shielding	Designed into PCB Layout		
ESD Protection	8Kv (Contact), 15Kv (Air)		

## KIO7000-BX MECHANICAL SPECIFICATION

Life Expectancy	Elastomer Keys 10,000,000+ activations/cycles (hard carbon pills, hard gold plated PCB)		
Shock	Peak Value 50g (typical)	Peak Duration 11ms	Waveform Half Sine
Vibration	Frequency / Displacement 10-55 Hz @ 0.013 DA		

## KIO7000-BX ENVIRONMENTAL SPECIFICATION

Operating Temperature	-40° to 80° C / -40° to 176° F
Storage Temperature	-40° to 80° C / -40° to 176° F
Relative Humidity	100% condensing
Sealing Rating	NEMA 4X (IP66)
Protection	SynProof™ Coated (Standard)- toughest molecular barrier protection Parylene Coated (Optional) - toughest molecular barrier protection

## CONFORMANCE / CERTIFICATIONS / COMPLIANCE

subject to manufacturing options applied

U.S.A. Standards	U.S. FCC 47 CFR 15 Class A & B	RF Emissions Compliant 8Kv (Contact), 15Kv (Air)
	MIL-STD-461F	Radiated Emissions and Susceptibility Conformance
	MIL-STD-810G	Protection against humidity, fungus, and salt spray Conformance
	MIL-STD-901D	Protection against shock Conformance
	MIL-STD-167-1	Protection against vibration Conformance
	MIL-STD-1472G	Human Factors Conformance
	MIL-I-45208	Quality System Conformance
	IPC-A-610 II	Acceptability of Electronics Assemblies Certification
European Standards	ISO 9001:2008 (Registration No. 74 300 3983)	
	"CE" Compliant	
	Restriction of Hazardous Substance (RoHS) Directive Compliant Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Directive Compliant	
International Standards	IEC 61000-4-2 and EN61000-4-2	ESD 8Kv contact and 15Kv air Conformance
	IEC 61000-4-3 and EN61000-4-3	Radiated Emissions and Susceptibility Conformance
	IEC 61000-6-3 and EN61000-6-3	Electromagnetic Compatibility Conformance

performance

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