KIT6000-BX Industrial Keyboard

CTI ELECTRONICS

An Affiliate of **ELECTRO SWITCH**

NEMA 12 (IP54) PLUG-N-PLAY INDUSTRIAL KEYBOARD WITH 1.3" (33MM) TRACKBALL

performance

durability

reliability

• Shown above KIT6000-BX Industrial Keyboard with Trackball

KIT6000-BX STANDARD FEATURES

• NEMA 12 (IP54) sealed

• Standard Operating Temperature -40°C to 80°C (-40°F to 176°F)

• High reliability and durability (MTBF 100,000+ hours,
  10,000,000+ deflections)

• Key contacts are comprised of a thick layer of hard gold on PCB
  and hard carbon pills molded into the Silcone Rubber Elastomer

• 2mm Key travel with excellent tactile feedback to operator

• Thermally infused silicone ink into the Elastomer ensures
  long term readability

• SynProof™ coated Elastomer protects from penetration of
  harsh oils and chemicals (optional Parylene coating)

• A thick 0.06" PCB ensures rigidity under pressure and
  protection of electronic components

• PCB layout offers EMI/RFI shielding and Ground Connection (ESD)

• Metal Enclosure is passivated Stainless Steel or iridited Aluminum

• Stainless Steel Threaded Inserts on bottom plate for surface mounting

• 9.5 foot USB Cable with Strain Relief to prevent cable damage.

• 1.3" (33mm) Diameter Trackball

KIT6000-BX USB INDUSTRIAL KEYBOARD WITH TRACKBALL

CTI's KIT6000 Series Plug-n-Play Industrial Keyboard are comprised of a durable Printed Circuit Board (PCB), a rubber silicone Elastomer, a Trackball (aerospace grade mouse), a metal enclosure, and a 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 the 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 molded special 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 CTIs' special formulated flexible polyurethane coating process (Syn-Proof™). Ensuring a tight seal, these keyboards are encased in the finest grade stainless steel which is passivated or a painted aluminum which is iridited. Finally, for those low level lighting situations, the backlit KIT6000-Bx Series offers ten levels of illumination.

The NEMA 12 (IP54) sealed Industrial Keyboard is most suitable for critical applications requiring high durability (10M+ cycles), high reliability (99.999% availability), and/or ensured performance under extreme operating temperatures, exposure to dust particles and/or light liquid contaminants. It's well protected against high vibration and EMI/RFI signals. This compact keyboard with its stainless steel threaded inserts on the bottom plate allows for affixing to a panel or desktop. Finally, for those low level lighting situations, the backlit KIT6600-Bx Series offers ten levels of illumination.

These Plug-n-Play Industrial Keyboards are offered to the Systems Integrator or Commercial End User with an assurance of high reliability, long term durability, and performance under normal operating conditions. Designed for extremely fine mouse cursor control applications these rugged compact keyboards are an excellent solution for military, marine, medical, nuclear plants, radar systems, etc. The combined features of the Plug-n-Play Industrial Keyboards meet and/or exceed
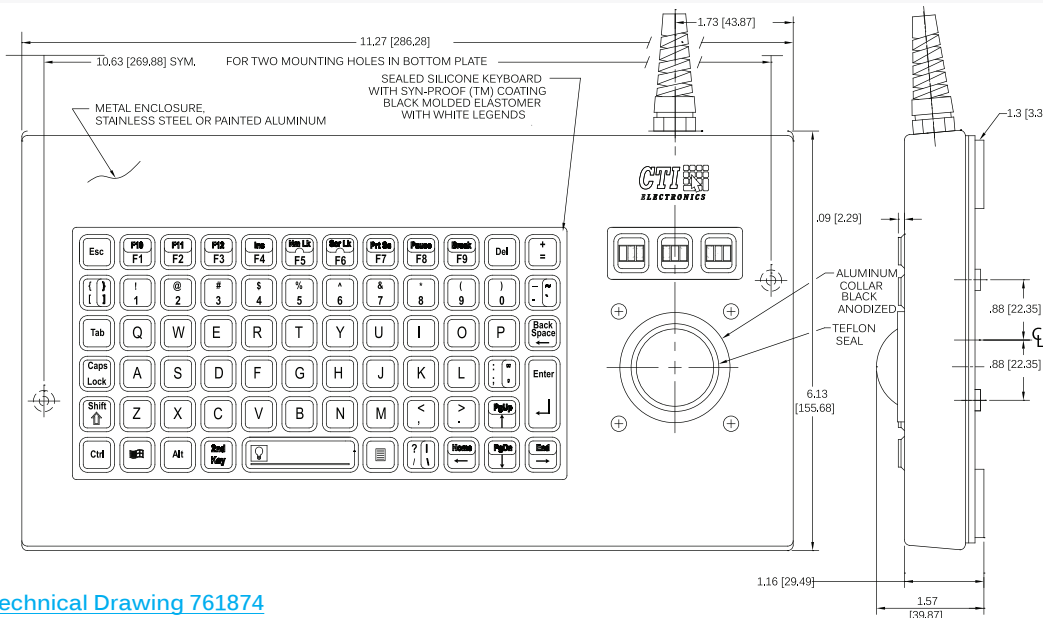
KIT6000-BX MANUFACTURING OPTIONS

Wx	Shielded USB Bulkhead Cable (1 Foot to 5 Feet)
	For complete ordering information please refer to Technical Drawings

KIT6000-BX TECHNICAL DRAWINGS

761874	KIT6000-BX Industrial Keyboard with Trackball

KIT6000-BX INDUSTRIAL KEYBOARD WITH TRACKBALL TECHNICAL DRAWING

11,27 [286,28]

10,63 [269,88] SYM.   FOR TWO MOUNTING HOLES IN BOTTOM PLATE

SEALED SILICONE KEYBOARD
WITH SYN-PROOF (TM) COATING
BLACK MOLDED ELASTOMER
WITH WHITE LEGENDS

METAL ENCLOSURE,
STAINLESS STEEL OR PAINTED ALUMINUM

1.73 [43,87]

1.3 [3.3]

.09 [2,29]

ALUMINUM
COLLAR
BLACK
ANODIZED

TEFLON
SEAL

.88 [22.35]

.88 [22.35]

6.13
[155,68]

1,16 [29,49]

1.57
[39.87]

See CTI Technical Drawing 761874

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One Year Warranty   www.ctielectronics.com   **Five Year Repair Policy**

KIT6000-BX Industrial Keyboard

NEMA 12 (IP54) PLUG-N-PLAY INDUSTRIAL KEYBOARD WITH 1.3" (33MM) TRACKBALL

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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)

KIT6000-BX SPECIFICATION

KIT6000-BX Measurements	**Width:** 11.27" (286.3mm)	**Height:** 6.13" (155.7mm)	**Depth:** 1.57" (39.9mm)	**Weight:** 55 Oz (1.60kg)
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)			

KIT6000-BX ELECTRICAL SPECIFICATION

MTBF	Greater than 100,000 hours per MIL-HDBK-217F	
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)	

KIT6000-BX MECHANICAL SPECIFICATION

Life Expectancy	**Elastomer Keys** 10,000,000+ activations/cycles (hard carbon pills, hard gold plated PCB)		
Shock	**Peak Value** 40g (typical)	**Peak Duration** 11ms	**Waveform** Half Sine
Vibration	**Frequency / Displacement**	10-55 Hz @ 0.013 DA	
Trackball Life Expectancy	20,000,000 random cycles		
Trackball Shock	**Peak Value** 100g	**Peak Duration** 11ms	**Waveform** Half Sine
Trackball Specification	**Diameter** 1.3" (33mm)	**Resolution** 416 cts/rev	**Encoder Wheel** 0.73" Dia.; 40 Slots

KIT6000-BX ENVIRONMENTAL SPECIFICATION

Operating Temperature	-40º to 80º C / -40º to 176º F
Storage Temperature	-40º to 80º C / -40º to 176º F
Relative Humidity	95% condensing per MIL-STD-810G
Sealing Rating	NEMA 12 (IP54)
Protection	SynProof™ Coated (Standard) - protection against harsh oils and chemicals
	Parylene Coated (Optional) - toughest molecular barrier protection
Operating Environment	Up to 40,000 ft with conformal coating option

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

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