



An Affiliate of ELECTRO SWITCH

KI9000 Industrial Keyboard

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

KI9000 INDUSTRIAL KEYBOARD

CTI's Plug-n-Play KI9000 Series Industrial Keyboards are comprised of a durable matrix Printed Circuit Board (PCB) with metal stiffener bracket, a rear mounted Interface PCB, a rubber silicone Elastomer, 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 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™). Ensuring a watertight seal, these keyboards are encased in the finest grade stainless steel which is passivated or a painted aluminum which is iridited.

The NEMA 4 / 4X (IP66) sealed 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 full-size keyboard is very user friendly to the operator even while wearing gloves.

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 harsh conditions. Designed for wash down applications these rugged full-size keyboards are an excellent solution for food processing, paper/pulp processing, paint/chemical processing, iron ore/steel manufacturing facilities, etc. The combined features of the Plug-n-Play Industrial Keyboards meet and/or exceed industry standards specifications.

KI9000 MANUFACTURING OPTIONS

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

KI9000 TECHNICAL DRAWINGS

761681	KI9000 Plug-n-Play Industrial Keyboard
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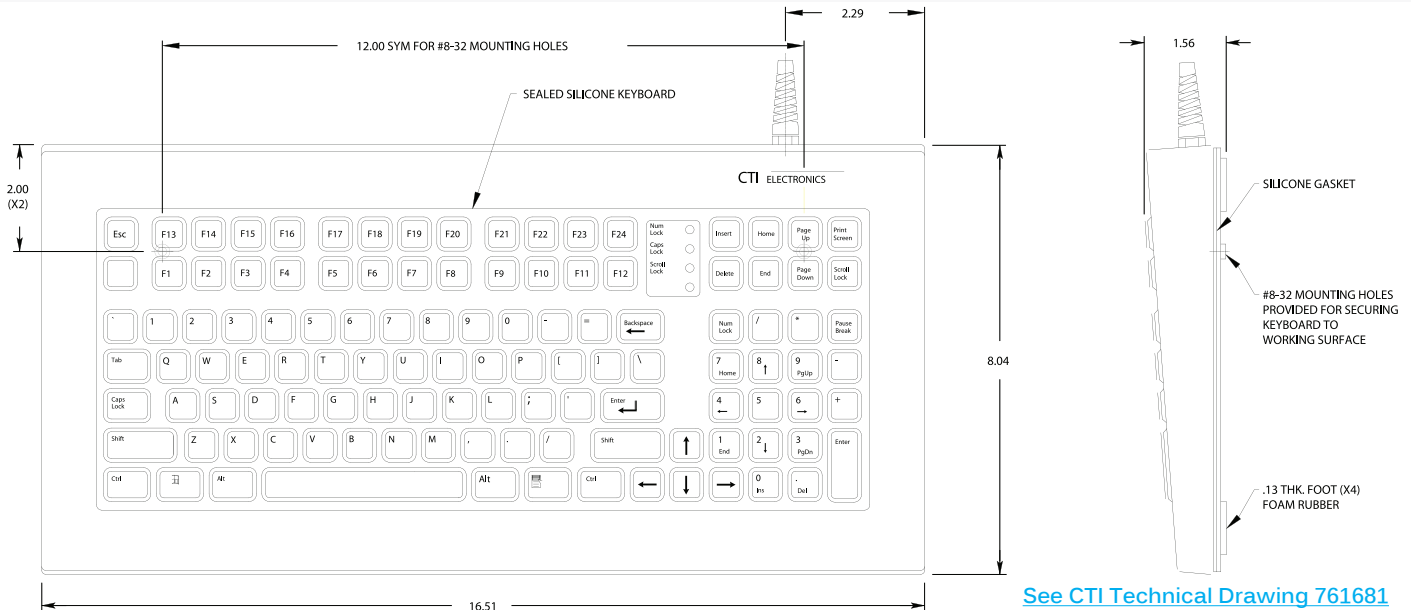


• Shown above KI90U1 Industrial Keyboard

KI9000 STANDARD FEATURES

- NEMA 4 / 4X (IP66) 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 Silicone 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
- F13 to F24 Keys output USB HID usage HEX Codes (68, 69, 6A, 6B, 6C, 6D, 6E, 6F, 70, 71, 72, 73)
- 9.5 foot USB Cable with Strain Relief to prevent cable damage.

KI9000 INDUSTRIAL KEYBOARD TECHNICAL DRAWING



See CTI Technical Drawing 761681



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

MID-SIZE AND FULL-SIZE INDUSTRIAL KEYBOARD COMPARISON CHART

	KI8000	KI9000	KIF8000	KIF9000	KIT2700
Dimensions (Inches)	12.88" x 7.71" x 1.60"	16.51" x 8.04" x 1.56"	16.38" x 7.71" x 2.78"	20.00" x 8.04" x 1.60"	16.38" x 9.00" x 1.71"
Dimensions (mm)	327.1 x 195.8 x 40.64mm	419.3 x 204.2 x 39.6mm	416.5 x 195.83 x 70.61mm	419.3 x 204.2 x 39.6mm	416.5 x 228.6 x 43.69mm
Stainless Steel Oz (kg)				117 Oz (3.31 kg)	
Aluminum Oz (kg)			52 Oz (1.47 kg)		60.6 Oz (1.71 kg)
Mouse Pointer			Industrial Mouse™	Industrial Mouse™	Industrial Trackball
Numeric Keypad		Yes		Yes	
Function Keys	12	24	12	24	12
Language Options	US QWERTY (Standard) See Technical Drawing for Specific Language Options				
Total Keys	87 Keys	116 Keys	87 Keys	116 Keys	87 Keys
Key Travel	2mm travel with excellent tactile feedback				
Backlighting					
Sealing	NEMA 4X (IP66)				NEMA 12 (IP54)

KI9000 SPECIFICATION

KI9000 Measurements	Width: 16.51" (419.3mm)	Height: 8.04" (204.2mm)	Depth: 1.56" (39.6mm)	Weight: -
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 Keyboard Driver			

KI9000 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)		
Keyboard Signaling Protocols	Standard USB Legacy PS/2, AT, ASCII, SUN, DEC		

KI9000 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	

KI9000 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) - protection against harsh oils and chemicals 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