



An Affiliate of ELECTRO SWITCH

KI9800 OEM Industrial Keyboard

NEMA 4 (IP66) OEM INDUSTRIAL KEYBOARD

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CTI's OEM KI9800 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, 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 4 (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 large-size keyboard is very user friendly to the operator who is wearing gloves.

These OEM 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 4 (IP66) watertight sealing over a broad operating temperature range when fastened into a metal enclosure. The combined features of the OEM Industrial Keyboards meet and/or exceed industry standards specifications.

KI9800 OEM KEYBOARD MANUFACTURING OPTIONS

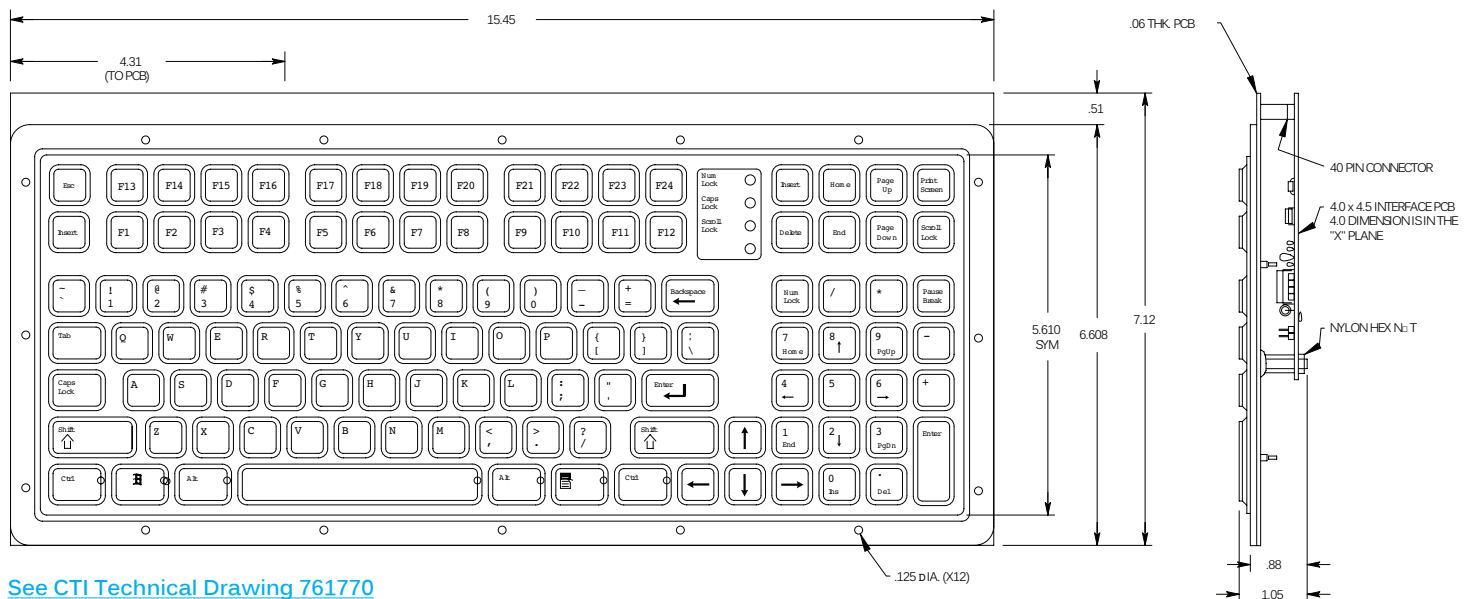
| | |
|-----|--|
| X.X | Optional Shielded USB Cable (1 foot to 9.5 feet) |
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*For complete ordering information please refer to Technical Drawings

KI9800 TECHNICAL DRAWINGS

| | |
|--------|--------------------------------|
| 761770 | KI9800 OEM Industrial Keyboard |
|--------|--------------------------------|

KI9800 OEM INDUSTRIAL KEYBOARD TECHNICAL DRAWING



See CTI Technical Drawing 761770

• Shown above KI9800 Industrial Keyboard

KI9800 STANDARD FEATURES

- NEMA 4 (IP66) sealing when properly installed
- Standard Operating Temperature -40°C to 80°C (-40°F to 176°F)
- High reliability and durability (MTBF 100,000+ hours, 10,000,000+ cycles)
- 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
- Numeric Keypad
- SynProof™ coated Elastomer protects from penetration of harsh oils and chemicals
- A thick 0.06" PCB ensures rigidity under pressure and protection of electronic components
- PCB layout offers EMI/RFI shielding and Ground Connection (ESD)
- F13 to F24 Keys output USB HID usage HEX Codes (68, 69, 6A, 6B, 6C, 6D, 6E, 6F, 70, 71, 72, 73)



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NEMA 4 (IP66) OEM INDUSTRIAL KEYBOARD

INDUSTRIAL KEYBOARD COMPARISON CHART

| | KI6800 | KIO6800 | KIO7800 | KI8800 | KI9800 |
|---------------------|--|-------------------------|------------------------|------------------------|------------------------|
| Dimensions (Inches) | 8.00" x 4.49" x 0.57" | 8.00" x 4.46" x 0.51" | 11.63" x 4.86" x 0.73" | 11.75" x 6.85" x 0.95" | 15.45" x 7.12" x 1.05" |
| Dimensions (mm) | 203.2 x 124.1 x 14.4 | 203.2 x 113.2 x 12.9 | 295.4 x 4.86 x 0.73 | 298.4 x 173.9 x 24.1 | 392.4 x 180.4 x 26.6 |
| Weight Oz (g) | 7 Oz (198 g) | 8 Oz (312 g) | 12 Oz (340 g) | 18 Oz (510 g) | 22 Oz (624 g) |
| Mouse Pointer | | OrbitalMouse® | OrbitalMouse® | | |
| Numeric Keypad | | Yes (Non-Backlit Model) | Yes | | Yes |
| Key Functionality | 101/104 | | | | |
| Funtion Keys | 12 | 12 | 12 | 12 | 24 |
| Language Options | US QWERTY (Standard) See Technical Drawing for Specific Language Options | | | | |
| Total Keys | 69 Keys | 71 Keys | 90 Keys | 87 Keys | 116 Keys |
| Key Travel | 2mm travel with excellent tactile feedback | | | | |
| Backlighting | Red, Green | Red, Green | Red, Green | | |
| Sealing | NEMA 4 (IP66) | | | | |

KI9800 SPECIFICATION

| | | | | |
|---------------------|---|-------------------------|-----------------------|-----------------------|
| KI9800 Measurements | Width: 15.45" (392.4mm) | Height: 7.12" (180.4mm) | Depth: 1.05" (26.6mm) | Weight: 22 Oz (624 g) |
| 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 | | | |

KI9800 ELECTRICAL SPECIFICATION

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

KI9800 MECHANICAL SPECIFICATION

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|-----------------|---|--------------------|--------------------|
| Life Expectancy | Elastomer Keys 10,000,000+ actuations/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 | | |

KI9800 ENVIRONMENTAL SPECIFICATION

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|-----------------------|---|
| 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 4 (IP66) (when properly installed) |
| 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

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|--|--|---|
| 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 |
| European Standards | IPC-A-610 II | Acceptability of Electronics Assemblies Certification |
| | 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

durability

reliability