CTI
E L E C T R O N I C S
An Affiliate of **ELECTRO SWITCH**

KIO78U6 OEM Medical Keyboard

NEMA 4 (IP66) OEM MEDICAL / CLEANROOM KEYBOARD

performance

• Shown above KIO78U6 Medical Keyboard with Orbital Mouse®

KIO78U6 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+ deflections)

• Orbital Mouse® patented design has 8 cursor speed settings

• 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

• Parylene "C" coated Elastomer protects from penetration of
  bio-hazardous materials at the molecular level.

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

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

• Numeric Keypad

durability

KIO78U6 USB MEDICAL KEYBOARD WITH MEDICAL MOUSE

CTI's OEM KIO78U6 Medical / Cleanroom Keyboard is comprised of a durable Printed Circuit Board (PCB) with two metal stiffener brackets, a rubber silicone Elastomer, the Orbital Mouse® (Button Style Cursor Controller), a stainless steel enclosure, 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 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 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 molecularly sealed through a Parylene "C" coating process in a gas chamber. 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 Medical / Cleanroom 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 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.
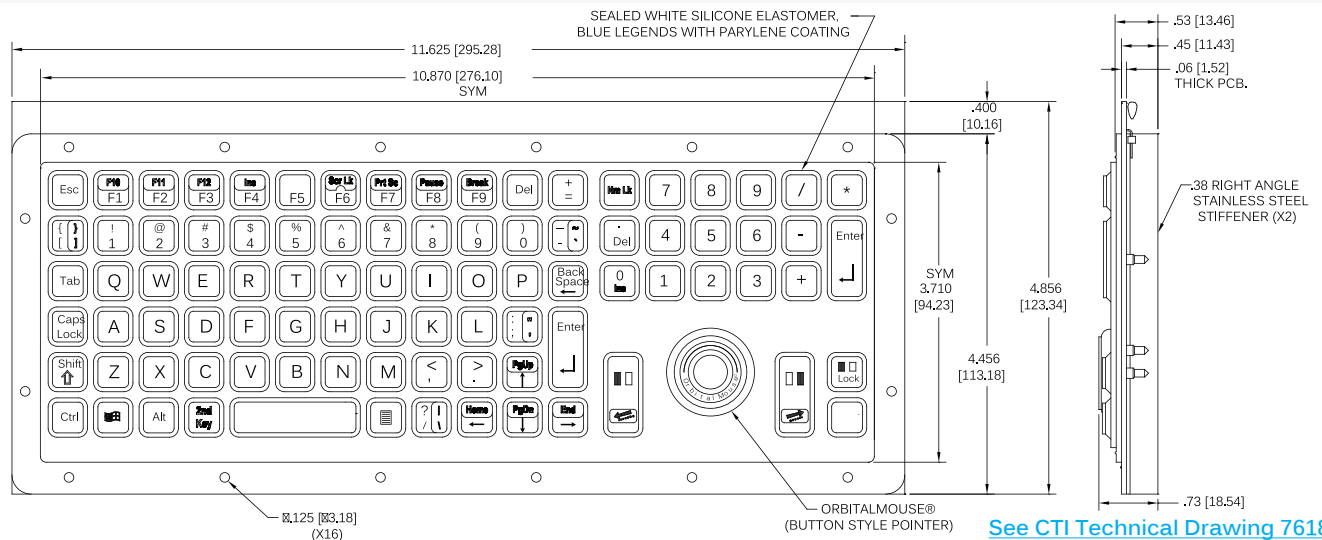
This OEM Medical / Cleanroom Keyboard is offered to Original Equipment Manufacturers as an open frame module with exposed electrical components that requires mounting and encasement. The properly positioned through holes of the PCB an Elastomer will ensure a NEMA 4 (IP66) watertight sealing over a broad operating temperature range when fastened   into a metal enclosure. The combined features of the OEM Medical / Cleanroom Keyboard will meet and/or exceed industry standards

KIO78U6 TECHNICAL DRAWINGS
761871   KIO78U6 OEM Medical Keyboard with OrbitalMouse® Pointer

KIO78U6 MEDICAL KEYBOARD WITH MEDICAL MOUSE TECHNICAL DRAWING

SEALED WHITE SILICONE ELASTOMER, BLUE LEGENDS WITH PARYLENE COATING

11.625 [295.28]
10.870 [276.10] SYM
.400 [10.16]

.53 [13.46]
.45 [11.43]
.06 [1.52] THICK PCB.

.38 RIGHT ANGLE STAINLESS STEEL STIFFENER (X2)

SYM 3.710 [94.23]
4.856 [123.34]
4.456 [113.18]

.125 [3.18] (X16)

ORBITALMOUSE® (BUTTON STYLE POINTER)

.73 [18.54]

See CTI Technical Drawing 761871

reliability

KIO78U6 MEDICAL KEYBOARD ORBITAL MOUSE® PATENT

U.S.A. PATENTS 7,499,032 **U.S.A. PATENT PENDING** 12/344368

110 Old South Avenue Stratford, CT 06615 U.S.A. | Tel +1 203-386-9779 | Fax +1 203-378-4986 | sales@ctielectronics.com

One Year Warranty   www.ctielectronics.com

KIO78U6 OEM Medical Keyboard

NEMA 4 (IP66) OEM MEDICAL / CLEANROOM KEYBOARD

An Affiliate of **ELECTRO SWITCH**

MEDICAL KEYBOARD COMPARISON CHART

	KI68U6	KIO78U6
Dimensions	8.00" x 4.89" x 0.50" (230.20mm x 124.21mm x 12.70mm)	11.63" x 4.86" x 0.73" (295.28mm x 123.34mm x 18.54mm)
Weight (No Cable)	7 Oz (198 grams)	12 Oz (340 grams)
Weight (with 9.5ft Cable)	9.8 OZ. (278 Grams)	14.8 OZ. (420 Grams)
Mouse Pointer		Orbital Mouse® (Eight Speed Curves)
Numeric Keypad		Yes
Key Funtionality	101/104	101/104
Funtion Keys	12	12
Language Options	US QWERTY	US QWERTY
Total Keys	69 Keys	90 Keys
Key Travel	2mm travel with excellent tactile feedback	

KIO78U6 SPECIFICATION

KIO78U6 Measurements	**Width:** 11.63" (295.28mm)	**Height:** 4.86" (123.34mm)	**Depth:0.73**" (18.54mm)	**Weight: 12 Oz (340 grams)**
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)			

KIO78U6 ELECTRICAL SPECIFICATION

MTBF	Greater than 100,000 hours
Cabling	Optional Shielded USB Cable (1 foot to 9.5 feet)
Ground Connection	Yes
EMI/RFI Shielding	Designed into PCB Layout
ESD Protection	8Kv (Contact), 15Kv (Air)

KIO78U6 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	

KIO78U6 ENVIRONMENTAL SPECIFICATION

Operating Temperature	-40º to 80º C / -40º to 176º F
Storage Temperature	-40º to 80º C / -40º to 176º F
Relative Humidity	100% condensing
Sealing Rating	NEMA 4 (IP66)
Protection	Parylene Coated Elastomer- 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

durability

reliability

Product Data Sheet 820175   04-2017

110 Old South Avenue Stratford, CT 06615 U.S.A. | Tel +1 203-386-9779 | Fax +1 203-378-4986 | sales@ctielectronics.com
One Year Warranty   www.ctielectronics.com