C&K Components has been providing innovative customer solutions for over 50 years. With its worldwide manufacturing, engineering and sales support, C&K is focused on delivering customer satisfaction with superior products, processes and services.

Through close partnerships with our customers, C&K continues to expand its offering to fully integrate our core switches products into customer specific interface solution.

C&K’s extensive offering also includes navigation, detect, rocker and slide components as well as snap acting, rotary, switch lock and thumbwheel.

Our process starts by listening to our customers and the challenges they face integrating C&K switch products into their end products. Our trained sales and engineering teams work closely with our customer’s product design teams to integrate our switch knowledge, into cost effective model and assembly solutions.

C&K maintains regional design centers in Newton MA USA, Dole France, and Huizhou China to service your needs. C&K offers extensive and quick turn prototype services.

Our analytical tools include: 3-D CAD modeling, mold flow analysis, FEA, dynamic motion analysis, high speed photography, fixed and dynamic X-ray, thermal imaging, SEM / FTIR, light propagation analysis, sound chamber and force / displacement tester.

Please visit www.ck-components.com to view C&K’s full product offering and list of partners and distributors. The “Ask a specialist” function on the website allows direct contact to each C&K product manager to leverage your C&K product knowledge.

C&K SALES SUPPORT

- Americas
  - Tel: +1.617.693.3700
  - www.ck-components.com

- Asia
  - Tel: +852.3713.5288
  - Tokyo, Shanghai, Hong Kong

- Central and Eastern Europe
  - Tel: +49.30.814.539.250
  - Berlin, Prague

- Southern and Western Europe
  - Tel: +33.1.60.24.51.51
  - Lyon, Barcelona

- Germany
  - Tel: +49.30.814.539.350
  - Hamburg, Munich

- Manufacturing and/or R&D
  - Newton (USA), Dole (France), Huizhou China

www.ck-components.com

SWITCH AND INTERCONNECT SOLUTIONS
FOR AVIONICS APPLICATIONS

DESIGNING TECHNOLOGY INTO SOLUTIONS

ENGINEERING CAPABILITIES — EN 9100 MANUFACTURING PLANT

ECN Molding Simulation
C&K Components has been providing innovative customer solutions for over 50 years. Its worldwide manufacturing, engineering and sales support, C&K is focused on delivering customer satisfaction with superior products, processes and services.

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C&K’s products for Avionics end applications include:
- Key and tactile switches for cockpit panel dashboard, printers, interior lightings and security systems
- DIP, key switches and toggles for general electronic equipment
- Illuminated tactile push buttons for dashboard control units
- Key switches for piloting joysticks and passenger server units
- SIM card reader for entertainment communication system

C&K’s extensive offering also includes navigation, detect, rocker and slide components as well as snap acting, rotary, switch lock and thumbwheel.

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PANEL / PRINTER
C&K products associated: EDM, KSC, KSR
Main specifications:
EDM Series
• Positive tactile feeling
• Operating temperature: –55°C to 85°C
• Short travel
• Self cleaning
• Operating life: 100K life cycles
KSC Series
• Positive tactile feeling
• Operating temperature: –55°C to 125°C
• Range of 6 actuation forces
• IP67
• Operating life: 100K to 1000K life cycles
KSR Series
• Saved PCB space
• Operating temperature: –55°C to 125°C
• Detect type available
• Rubber actuator
• Operating life: 30K to 200K life cycles

FLIGHT CONTROL UNIT
C&K products associated: PBA, EDM Series
Main specifications:
PBA Series
• Positive tactile feeling
• Operating temperature: –30°C to 85°C
• Illuminated display
• Small size
• Cold lighting
• Operating life: 1000K life cycles

JOYSTICK APPLICATION IN THE COCKPIT
C&K products associated: K12S
Main specifications:
K12S Series
• Positive tactile feeling
• Operating temperature: -40°C to 85°C
• Perfect for harsh environment application
• IP67
• Illuminated version available
• OPLS and detect version available
• Operating life: more than 1000K life cycles

GENERAL ELECTRONICS
C&K products associated: All the DIP Series, MIL Toggles, AP / NP
Main specifications:
DIP Series:
• Low profile
• Different kind of products available
• Switch number of variant
• Washable
• STF and STIF versions available
MIL Toggle Series
• Qualified to MIL-S-83723
• Snap-in select push-pull contact plating
• Finger and slider actuator for process compatibility
• Rated for high level to dampen resistive loads and dampen-inductive loads
• Range varient housing material
AP / NP Series
• AP
• Operating temperature: –55°C to 105°C
• Multiple housing styles
• Capable of up to 5A resistive load
• Operating life: 1000K life cycles

PASSENGER SERVER UNIT
C&K products associated: KSJ, KSC
Main specifications:
KSJ, KSC Series
• Sealed against flux (for KSJ) / IP67 for KSC
• Operating temperature: –40°C to 125°C
• Spherical actuator allows actuation force off axis +/- 30° with regard to travel (for KSJ)
• Different range of actuation forces
• Operating life:
  - 30K (radial) / 100K (axial) life cycles for KSJ
  - 100K to 1000K life cycles for KSC

INTERIOR LIGHTING AND SECURITY SYSTEM
C&K products associated: PVA, PVB, EDM, KSJ
Main specifications:
PVA / PVB Series
• Compact design
• Operating temperature: –40°C to 85°C
• Short stroke to latch
• Wide variety of actuator heights, forces and styles (for PVA)
• SMT and SMD mounting process (for PVA)
• Adapted for medium power applications
• Operating life: 1000K life cycles

ENTERTAINMENT COMMUNICATION SYSTEM
C&K products associated: CCM03
Main specifications:
CCM03 Series
• SIM/SAM card acceptance
• Operating temperature: –40°C to 85°C
• Hinged and fixed covers
• Compatible with pick and place and lead free soldering
• Operating life: 10K to 50K life cycles

www.ck-components.com
FLIGHT CONTROL UNIT
C&K products associated: PFB, EDM Series
Main specifications:
- Positive tactile feeling
- Operating temperature: -50°C to 85°C
- Illuminated display
- Small size
- Cold lighting
- Operating life: 1000K life cycles

JOYSTICK APPLICATION IN THE COCKPIT
C&K products associated: K12S Series
Main specifications:
- Positive tactile feeling
- Operating temperature: -40°C to 85°C
- Perfect for harsh environment application
- IP67
- Illuminated version available
- DPST and detect version available
- Operating life: more than 1000K life cycles

INTERIOR LIGHTING AND SECURITY SYSTEM
C&K products associated: PVA, PVB, EDM, KSJ Series
Main specifications:
- Compact design
- Operating temperature: -40°C to 85°C
- Short stroke to latch
- Wide variety of actuator heights, forces and styles (for PVA)
- SMT and SMD soldering process (for PVB)
- Adapted for medium power applications
- Operating life: 100K life cycles

BOARD ELECTRONICS
C&K products associated: All the DIP series, MIL Toggles, AP / NP Series
Main specifications:
- Low profile
- Different kind of products available
- Washable
- No tool and SMT versions available
- MIL Toggle series
  - Qualified to MIL-S-883J1
  - Slip with retention gold contact plating
  - Gold to gold contact for process compatibility
  - Rated for high level to ramp resistive loads and ZnO-reduction loads
- RA series
  - Operating temperature: -50°C to 100°C
  - Multiple housing styles
  - Capable of up to 9A resistive load
  - Operating life: 1000K life cycles

PASSENGER SERVER UNIT
C&K products associated: KSJ, KSC Series
Main specifications:
- Sealed against flux (for KSJ) / IP67 for KSC
- Operating temperature: -40°C to 125°C
- Spherical actuator allows actuation force off center +/- 30° with regard to travel (for KSJ)
- Different range of actuation forces
- Operating life:
  - 20K (radial) / 100K (axial) life cycles for KSJ
  - 100K to 1000K life cycles for KSC

PANEL / PRINTER
C&K products associated: EDM, KSC, KSR Series
Main specifications:
- Positive tactile feeling
- Operating temperature: -55°C to 85°C
- Short stroke
- Self cleaning
- Operating life: 1000K life cycles

KSC Series
- Positive tactile feeling
- Operating temperature: -55°C to 125°C
- Range of 6 actuation forces
- IP67
- Operating life: 100K to 1000K life cycles

KSR Series
- Saved PCB space
- Operating temperature: -55°C to 125°C
- Different type available
- Operating life: 20K to 200K life cycles

HIGH PERFORMANCE ELECTRONIC SYSTEMS
C&K products associated: CCM03 Series
Main specifications:
- SIM/SAM card acceptance
- Operating temperature: -40°C to 85°C
- Hinged and fixed covers
- Compatible with pick and place and lead free soldering
- Operating life: 10K to 50K life cycles

www.ck-components.com
**GENERAL ELECTRONICS**

C&K products associated:
- All the DIP Series, MIL Toggles, AP / NP

**Main specifications:**
- Low profile
- Different kind of products available
- Number of position
- Washable
- THT and SMD versions available

**AP / HP Series**
- KSP
- Operating temperature: -55°C to 105°C
- Multiple housing styles
- Capable of up to 5A resistive load
- Operating life: 100K life cycles

**ENTERTAINMENT COMMUNICATION SYSTEM**

C&K products associated: CCM03

**Main specifications:**
- SIM / SAM card acceptance
- Operating temperature: -40°C to 85°C
- Hinged and fixed covers
- Compatible with pick and place and lead free soldering
- Operating life: 10K to 50K life cycles

**JOYSTICK APPLICATION IN THE COCKPIT**

C&K products associated: K12S

**Main specifications:**
- Positive tactile feeling
- Operating temperature: -40°C to 85°C
- Illuminated display
- Small size
- Cold lighting
- Operating life: 100K life cycles

**FLIGHT CONTROL UNIT**

C&K products associated: PBA, EDM Series

**Main specifications:**
- Positive tactile feeling
- Operating temperature: -50°C to 85°C
- Short stroke
- Self cleaning
- Operating life: 100K life cycles

**GENERAL ELECTRONICS**

C&K products associated: All the DIP Series, MIL Toggles, AP / NP

**Main specifications:**
- Low profile
- Different kind of products available
- Number of position
- Washable
- THT and SMT versions available

**NRL Toggle Series**
- Qualified to MIL-8-8731
- Skip rush selection gold contact plating
- Dust and corrosion resistant for process compatibility
- Rated for high level to ramp resistive loads and ZM-2 ramp loads
- Plane versatile housing material

**AP / HP Series**
- KSP
- Operating temperature: -55°C to 105°C
- Multiple housing styles
- Capable of up to 5A resistive load
- Operating life: 100K life cycles

**INTERIOR LIGHTING AND SECURITY SYSTEM**

C&K products associated: PVA, EDM, KSJ

**Main specifications:**
- Compact design
- Operating temperature: -40°C to 85°C
- Short stroke to latch
- Wide variety of actuator heights, forces and styles for PVA
- Suitable for medium power applications
- Operating life: 100K life cycles

**FLIGHT CONTROL UNIT**

C&K products associated: PBA, EDM Series

**Main specifications:**
- Positive tactile feeling
- Operating temperature: -50°C to 85°C
- Illuminated display
- Small size
- Cold lighting
- Operating life: 100K life cycles
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