

**RF / MICROWAVE**

# DC to 40 GHz Coaxial Switches



 **Ducommun**  
Technologies

# SPDT—40 GHz Switch

# DK1 Series

The DK1 Series features K connectors and a frequency range of DC to 40 GHz.

This series is available with failsafe, latching self-cut-off or pulse latching functions.

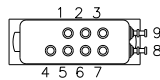
Contact Factory for RoHS Compliant Version

- RF Impedance:** 50 ohms nominal
- Temperature Range:** -35°C to +85°C
- Operating Life:** 1,000,000 cycles
- Switching Time:** 15 mSec Max
- Switching Sequence:** Break Before Make
- Environmental:** Designed in Accordance to MIL-DTL-3928 (Testing and Operation Modes)



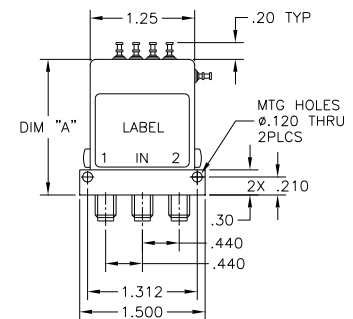
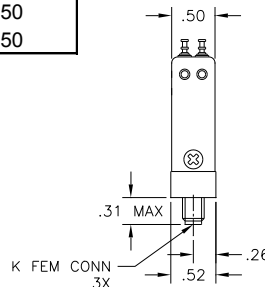
## SPECIFICATIONS

Frequency	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dB min.)
DC-6 GHz	1.30	0.30	70
6-12 GHz	1.40	0.40	60
12-18 GHz	1.50	0.50	60
18-26.5 GHz	1.70	0.70	55
26.5-32 GHz	1.90	0.80	50
32-40 GHz	2.00	1.00	50



Actuator Current (typical)	12Vdc	12-15 Vdc	20-24 Vdc	24-30Vdc
Failsafe	240mA	300mA	200mA	140mA
Latching	141mA	176mA	109mA	88mA

\* If reduced coil current is required, please contact Factory.



For Dimension "A" please contact factory.

# Transfer—40 GHz Switch

# TK4 Series

The TK4 Series features K connectors and a frequency range of DC to 40 GHz.

This series is available with failsafe, latching self-cut-off or pulse latching functions.

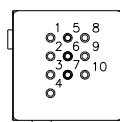
Contact Factory for RoHS Compliant Version

- RF Impedance:** 50 ohms nominal
- Temperature Range:** -35°C to +85°C
- Operating Life:** 1,000,000 cycles
- Switching Time:** 15 mSec Max
- Switching Sequence:** Break Before Make
- Environmental:** Designed in Accordance to MIL-DTL-3928 (Testing and Operation Modes)



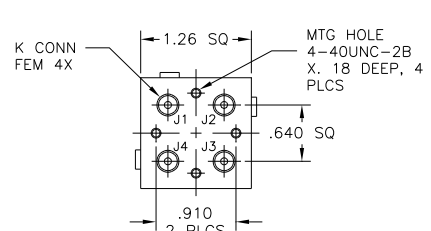
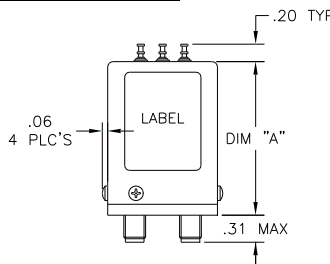
## SPECIFICATIONS

Frequency	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dB min.)
DC-6 GHz	1.30	0.30	70
6-12 GHz	1.40	0.40	60
12-18 GHz	1.50	0.50	60
18-26.5 GHz	1.70	0.70	55
26.5-40 GHz	2.00	1.00	50



Actuator Current (typical)	12Vdc	12-15 Vdc	20-24 Vdc
Failsafe	480mA	480mA	330mA
Latching	280mA	280mA	270mA

\* If reduced coil current is required, please contact Factory.



For Dimension "A" please contact factory.

# SPDT—40 GHz Switch

# DK3 Series



The DK3 Series features K connectors and a frequency range of DC to 40 GHz.

This series is available with failsafe, latching self-cut-off or pulse latching functions.

Contact Factory for RoHS Compliant Version

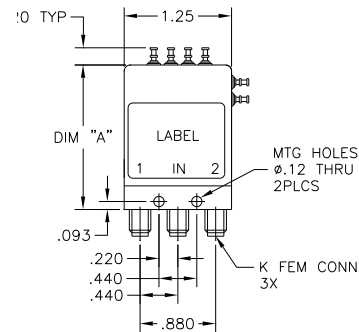
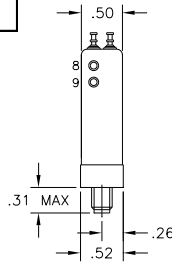
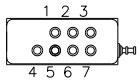
- RF Impedance:** 50 ohms nominal
- Temperature Range:** -35°C to +85°C
- Operating Life:** 1,000,000 cycles
- Switching Time:** 15 mSec Max
- Switching Sequence:** Break Before Make
- Environmental:** Designed in Accordance to MIL-DTL-3928 (Testing and Operation Modes)

### SPECIFICATIONS

Frequency	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dB min.)
DC-6 GHz	1.30	0.30	70
6-12 GHz	1.40	0.40	60
12-18 GHz	1.50	0.50	60
18-26.5 GHz	1.70	0.70	55
26.5-32 GHz	1.90	0.80	50
32-40 GHz	2.00	1.00	50

Actuator Current (typical)	12Vdc	12-15 Vdc	20-24 Vdc	24-30Vdc
Failsafe	240mA	300mA	200mA	140mA
Latching	141mA	176mA	109mA	88mA

\* If reduced coil current is required, please contact Factory.



For Dimension "A" please contact factory.

# Multi-Position—40 GHz Switch

# QK Series



The QK Series features K connectors and a frequency range of DC to 40 GHz.

This series is available with normally open function.

This switch is also available in a terminated version with latching self-cut-off function.

Contact Factory for RoHS Compliant Version

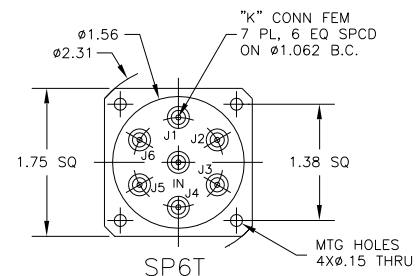
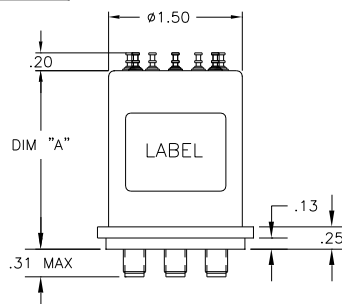
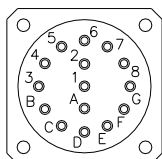
- RF Impedance:** 50 ohms nominal
- Temperature Range:** -35°C to +85°C
- Operating Life:** 1,000,000 cycles
- Switching Time:** 15 mSec Max
- Switching Sequence:** Break Before Make
- Environmental:** Designed in Accordance to MIL-DTL-3928 (Testing and Operation Modes)

### SPECIFICATIONS

Frequency	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dB min.)
DC-6 GHz	1.30	0.20	70
6-12 GHz	1.40	0.40	60
12-18 GHz	1.50	0.50	60
18-26.5 GHz	1.70	0.70	55
26.5-40 GHz	2.00	1.00	50

Actuator Current (typical)	12Vdc	12-15 Vdc	20-24 Vdc	24-30Vdc
Normally Open	180mA	180mA	130mA	140mA

\* If reduced coil current is required, please contact Factory.



For Dimension "A" please contact factory.

## About Us

Founded in 1849, Ducommun Incorporated provides engineering and manufacturing services for the aerospace and defense industry. A key part of the Ducommun family of businesses, Ducommun Technologies, Inc. is a leading technology company with design, development, manufacturing, integration and test capabilities in the areas of missiles, space, sensor, simulation, complex electronic/mechanical assemblies, illuminated cockpit displays, RF to millimeter wave components to sub-systems and space-qualified motion control devices.

Ducommun Technologies coaxial switch heritage begins with Jay-El and Dynatech (DMT), founded in 1969 and acquired by the company in the early 1990's. To further strengthen its product offering, the company subsequently acquired DB Products (DBP) in 2004 and WiseWave Technologies in 2006.

Today Ducommun Technologies is a powerhouse serving the avionics, commercial, industrial, defense, medical, telecommunications and space up-link & down-link market sectors with a wide range of coaxial switch products.

Ducommun Technologies customers have chosen Ducommun switch products for its unique comprehensive understanding of electro-mechanical switches principals, along with a singular dedication to reliability, quality and focus on providing great customer service.

If it's standard or off-the-shelf commercial switch your looking for or if your needs are for a highly customized ruggedized switch, Ducommun Technologies has the ability to design and deliver.



Ducommun Technologies  
23301 Wilmington Avenue  
Carson, CA 90745 USA  
Phone: 310-513-7200  
Fax: 310-513-0206

[www.ducommun.com](http://www.ducommun.com)  
[40GHz@ducommun.com](mailto:40GHz@ducommun.com)