

QK SERIES
1P3T to 1P6T
MULTI POSITION SWITCH
DC-40 GHz ◆ K

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

This series is available with latching self cut-off or normally open functions.

RF Impedance:	50 ohms nominal
Temperature Range:	-35°C to +85°C ambient
Operating Life:	1,000,000 cycles min.
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.

AVAILABLE OPTIONS

OPTION 2 RF CONNECTORS	OPTION 4 VOLTAGE	OPTION 5 ACTUATOR	OPTION 6 FREQUENCY	OPTION 8 SPECIAL OPTIONS
9 - K	1 - 6 Vdc +/- 10%	Normally Open	7 - DC to 40 GHz	L - TTL (High)
	2 - 12 Vdc +/- 10% (USB Optional)	G - Diodes, Indicators (USB Optional)		LL - TTL (Low)
	3 - 24-30 Vdc	H - Indicators		1 - Bracket
	4 - 48 Vdc +/- 10%	J - Diodes (USB Optional)	OPTION 7 POLARITY	F - Flange
	5 - 110 Vac +/- 10%	K - Standard	0 - Not Applicable, USB	U - USB
	6 - 12-15 Vdc (USB Optional)		8 - Positive Common	
OPTION 3 TERMINALS	7 - 18-20 Vdc		9 - Negative Common	
1 - Solder Terminals	8 - 20-24 Vdc			
2 - Circular Connector				
4 - Sub Miniature D-Shell Connector				
5 - USB				

Please Note: USB integration can only be applied to Voltage Options 12Vdc, & 15Vdc, Polarity Option # 3, and Terminals Option # 3.

The switch has a mini-USB socket on the enclosure interface which provides communication between switch and computers. Additionally, the enclosure also has a Molex socket for 12Vdc connection, which is required to power RF switch. The switch is accompanied with a CD driver, a 3 ft. USB cable and a 12 Vdc AC/DC adapter.

QK

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**Option 1
Series**

**Option 1
Number of
Positions**

**Option 2
RF Connectors**

**Option 3
Terminals**

**Option 4
Voltage**

**Option 5
Actuator**

**Option 6
Frequency**

**Option 7
Polarity**

**Option 8
Special
Options**

DC TERMINAL FUNCTION

PIN	NORMALLY OPEN					
	J	K	J, K w/ TTL	G	H	G, H w/ TTL
1	COM+/-	COM	+A	COM+/-	COM	+A
2	1-/+	1	-B	1-/+	1	-B
3	2-/+	2	1	2-/+	2	1
4	3-/+	3	2	3-/+	3	2
5	4-/+	4	3	4-/+	4	3
6	5-/+	5	4	5-/+	5	4
7	6-/+	6	5	6-/+	6	5
8	N/A	N/A	6	N/A	N/A	6
A	N/A	N/A	N/A	COM	COM	COM
B	N/A	N/A	N/A	1	1	1
C	N/A	N/A	N/A	2	2	2
D	N/A	N/A	N/A	3	3	3
E	N/A	N/A	N/A	4	4	4
F	N/A	N/A	N/A	5	5	5
G	N/A	N/A	N/A	6	6	6

SCHEMATICS

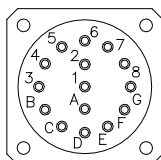
Pages 139-143

FIG.	29	29	30	29	29	30
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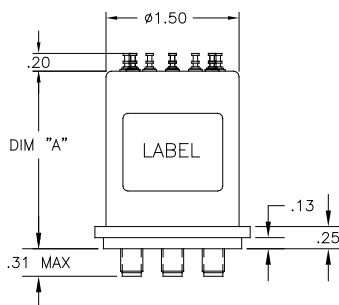
OUTLINE DRAWING DIMENSION "A"

1.60"	1.60"	2.25"	2.10"	2.10"	2.50"
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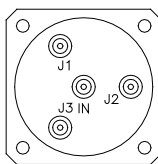
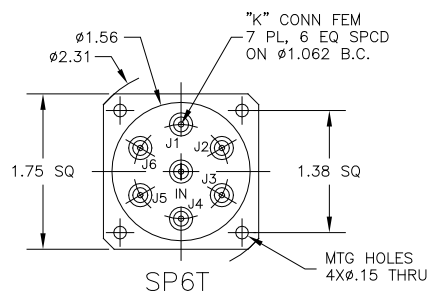
DC TERMINAL VIEW



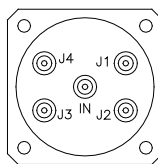
FRONT VIEW



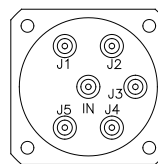
BOTTOM VIEW



SP3T



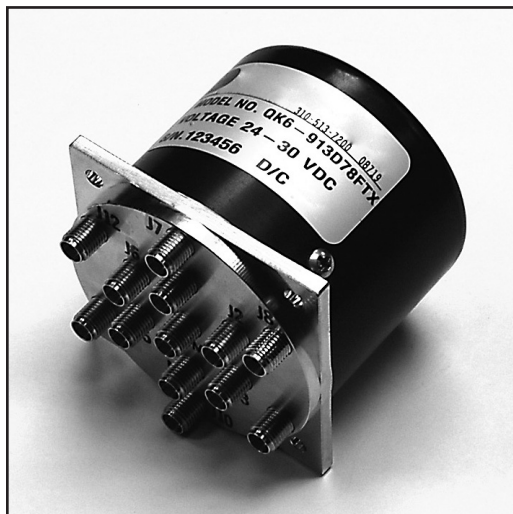
SP4T



SP5T

QK SERIES
1P3T to 1P6T MULTI POSITION 50
OHM TERMINATED SWITCH
DC- 40 GHz ◆ K

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

This series is available with latching self cut-off or normally open functions with terminations.

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

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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	282mA	353mA	218mA	175mA

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

AVAILABLE OPTIONS

OPTION 2 RF CONNECTORS	OPTION 4 VOLTAGE	OPTION 5 ACTUATOR	OPTION 6 FREQUENCY	OPTION 8 SPECIAL OPTIONS
9 - K	1 - 6 Vdc +/- 10% 2 - 12 Vdc +/- 10% (USB Optional)	Latching Self Cut-Off D - Diodes (USB Optional) E - Diodes, Indicators (USB Optional)	7 - DC to 40 GHz	L - TTL (High) LL - TTL (Low) R - Reset (Latching Only) T - Termination U - USB
OPTION 3 TERMINALS	3 - 24-30 Vdc 4 - 48 Vdc +/- 10% 5 - 110 Vac +/- 10% 6 - 12-15 Vdc (USB Optional) 7 - 18-20 Vdc 8 - 20-24 Vdc		OPTION 7 POLARITY 0 - Not Applicable, USB 8 - Positive Common 9 - Negative Common	
1 - Solder Terminals 2 - Circular Connector 4 - Sub Miniature D-Shell Connector 5 - USB				

Please Note: USB integration can only be applied to Voltage Options 12Vdc, & 15Vdc, Polarity Option # 3, and Terminals Option # 3.

The switch has a mini-USB socket on the enclosure interface which provides communication between switch and computers. Additionally, the enclosure also has a Molex socket for 12Vdc connection, which is required to power RF switch. The switch is accompanied with a CD driver, a 3 ft. USB cable and a 12 Vdc AC/DC adapter.

QK

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**Option 1
Series**

**Option 1
Number of
Positions**

**Option 2
RF Connector**

**Option 3
Terminals**

**Option 4
Voltage**

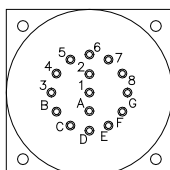
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Actuator**

**Option 6
Frequency**

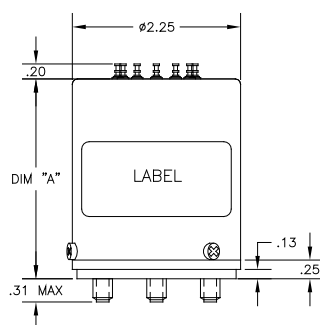
**Option 7
Polarity**

**Option 8
Special
Options**

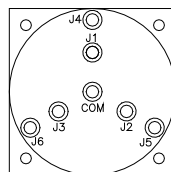
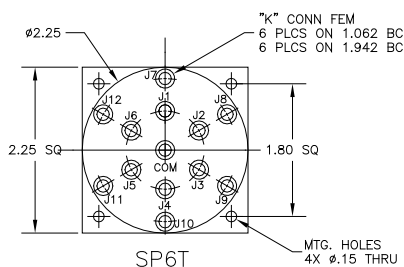
DC TERMINAL VIEW



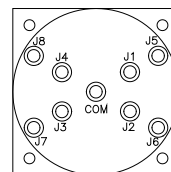
FRONT VIEW



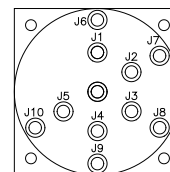
BOTTOM VIEW



SP3T



SP4T



SP5T

DC TERMINAL FUNCTION

PIN	LATCHING			
	D	D w/ TTL	E	E w/ TTL
1	C -/+	+V SW	C -/+	+V SW
2	AV1 -/+	C RTN	AV1 -/+	C RTN
3	AV2 -/+	L1	AV2 -/+	L1
4	AV3 -/+	L2	AV3 -/+	L2
5	AV4 -/+	L3	AV4 -/+	L3
6	AV5 -/+	L4	AV5 -/+	L4
7	AV6 -/+	L5	AV6 -/+	L5
8	N/A	L6	N/A	L6
A	N/A	N/A	Ind COM	Ind COM
B	N/A	N/A	Ind 1	Ind 1
C	N/A	N/A	Ind 2	Ind 2
D	N/A	N/A	Ind 3	Ind 3
E	N/A	N/A	Ind 4	Ind 4
F	N/A	N/A	Ind 5	Ind 5
G	N/A	N/A	Ind 6	Ind 6

SCHEMATICS

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FIG.	27	28	28

OUTLINE DRAWING DIMENSION "A"

2.38"	2.38"	2.38"	2.38"
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