S SERIES
1P7T to 1P8T
MULTI POSITION SWITCH
DC- 6.5 GHz ◆ SC

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Ducommun

The ***S Series*** features SC connectors and a frequency range of DC to 6.5 GHz and is designed for high power applications.

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-1 GHz	1.15	0.15	80
1-3 GHz	1.35	0.35	70
3-6.5 GHz	1.50	0.50	60

Actuator Current (typical)	12Vdc	12-15 Vdc	20-24 Vdc	24-30Vdc
Normally Open	240mA	240mA	170mA	140mA
Latching	280mA	280mA	270mA	220mA

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

AVAILABLE OPTIONS

OPTION 2 – RF CONNECTORS

5 -	SC

OPTION 3 – TERMINALS

1 -	Solder Terminals
2 -	Circular Connector
4 -	Sub Miniature D-Shell Connector
5 -	USB

OPTION 4 – VOLTAGE

1 -	6 Vdc +/- 10%
2 -	12 Vdc +/- 10% (USB Optional)
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 5 – ACTUATOR

Latching Self Cut-Off	
D -	Diodes (USB Optional)
E -	Diodes, Indicators (USB Optional)
Normally Open	
G -	Diodes, Indicators (USB Optional)
H -	Indicators
J -	Diodes (USB Optional)
K -	Standard
N -	Failsafe to Position 1 - Standard
R -	Failsafe to Position 1 - Diodes
S -	Failsafe to Position 1 - Diodes, Indicators

OPTION 6 – FREQUENCY

2 -	DC to 6.5 GHz

OPTION 7 – POLARITY

0 -	Not Applicable, USB
8 -	Positive Common
9 -	Negative Common

OPTION 8 – SPECIAL OPTIONS

L -	TTL (High)
LL -	TTL (Low)
1 -	Bracket
F -	Flange
R -	Reset (Latching Only)
C -	BCD
U -	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.

S		-	5				2		
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

	LATCHING					NORMALLY OPEN					NORMALLY OPEN - FAILSAFE TO POSITION 1				
PIN	D	D w/ TTL	E	E w/ TTL	J	K	J, K w/ TTL	G	H	G, H w/ TTL	N	R	N, R w/ TTL	S	S w/ TTL
1	NOTE #1	NOTE #1	NOTE #1	NOTE #1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	COM+/-	+A	COM+/-	+A	COM+/-	COM	+A	COM+/-	COM	+A	COM	COM+/-	+A	COM+/-	+A
3	1-/+	-B	1-/+	-B	1-/+	1	-B	1-/+	1	-B	2	2-/+	-B	2-/+	-B
4	2-/+	1	2-/+	1	2-/+	2	1	2-/+	2	1	3	3-/+	2	3-/+	2
5	3-/+	2	3-/+	2	3-/+	3	2	3-/+	3	2	4	4-/+	3	4-/+	3
6	4-/+	3	4-/+	3	4-/+	4	3	4-/+	4	3	5	5-/+	4	5-/+	4
7	5-/+	4	5-/+	4	5-/+	5	4	5-/+	5	4	6	6-/+	5	6-/+	5
8	6-/+	5	6-/+	5	6-/+	6	5	6-/+	6	5	7	7-/+	6	7-/+	6
9	7-/+	6	7-/+	6	7-/+	7	6	7-/+	7	6	8	8-/+	7	8-/+	7
10	8-/+	7	8-/+	7	8-/+	8	7	8-/+	8	7	N/A	N/A	8	N/A	8
11	N/A	8	N/A	8	N/A	N/A	8	N/A	N/A	8	N/A	N/A	N/A	N/A	N/A
A	N/A	N/A	COM	COM	N/A	N/A	N/A	COM	COM	COM	N/A	N/A	N/A	COM	COM
B	N/A	N/A	1	1	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A	1	1
C	N/A	N/A	2	2	N/A	N/A	N/A	2	2	2	N/A	N/A	N/A	2	2
D	N/A	N/A	3	3	N/A	N/A	N/A	3	3	3	N/A	N/A	N/A	3	3
E	N/A	N/A	4	4	N/A	N/A	N/A	4	4	4	N/A	N/A	N/A	4	4
F	N/A	N/A	5	5	N/A	N/A	N/A	5	5	5	N/A	N/A	N/A	5	5
G	N/A	N/A	6	6	N/A	N/A	N/A	6	6	6	N/A	N/A	N/A	6	6
H	N/A	N/A	7	7	N/A	N/A	N/A	7	7	7	N/A	N/A	N/A	7	7
I	N/A	N/A	8	8	N/A	N/A	N/A	8	8	8	N/A	N/A	N/A	8	8

NOTE#1: RESET IF (R) OPTION IS SELECTED, OTHERWISE N/A

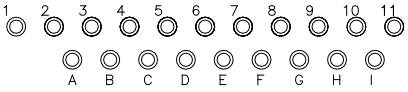
SCHEMATICS

	Pages 139-143														
FIG.	25	26	25	26	29	29	30	29	29	30	33	33	34	33	34

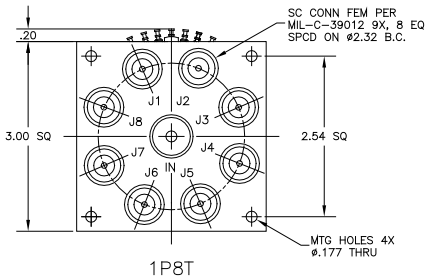
OUTLINE DRAWING DIMENSION "A"

	2.70"	2.70"	2.70"	2.70"	2.30"	2.30"	2.47"	2.30"	2.30"	2.47"	2.30"	2.30"	2.47"	2.30"	2.47"

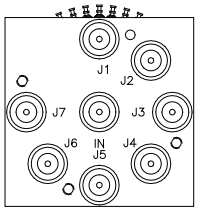
DC TERMINAL VIEW

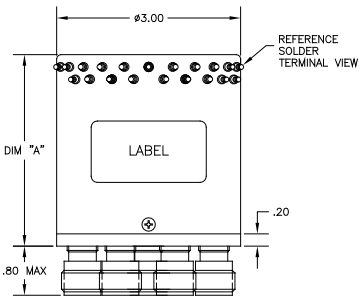


BOTTOM VIEW



1P8T



1P7T

FRONT VIEW