

DC to 46 GHz Coaxial Switches



Ducommun Overview

With more than 125 years of combined design experience, our engineering team is well suited to design and manufacture products from component level through complete integrated assemblies. Ducommun DC to 46 GHz coaxial switches provide reliable performance for applications ranging from communications, defense, and research center laboratories.

Applications

- Radar systems
- Communications
- Electronic warfare
- Navigation systems

Standard Specifications

- RF impedance: 50 ohm nominal
- Temperature range: -35°C to +85°C
- Operating life: 1,000,000 cycles
- Switching time: 15mSec (max)
- Switching sequence: break before make
- Environmental: designed in accordance to MIL-DLT-3928 (test and operation modes)

Series

- SPDT - DL1 series
- Transfer - TL4 series
- Multi-throw - QL series

DL1 Series - SPDT 46 GHz Switch

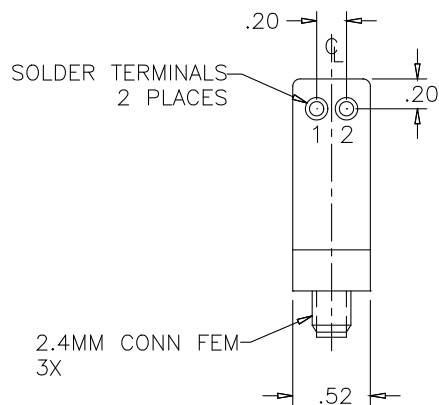
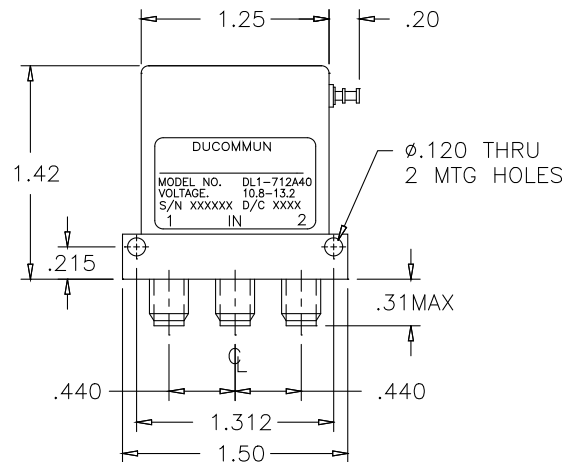
Specifications

General Specifications

Actuating Voltage	12VDC \pm 10%
Actuating Current	260 mA (max) at 12VDC & 72°F
Switching Time	15 ms (max)
RF Power	Average 10 watts
Operating Mode	Failsafe

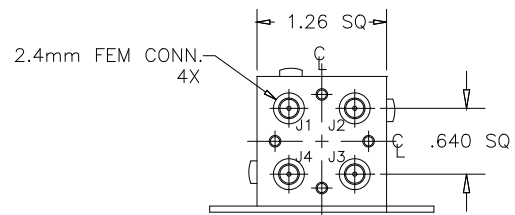
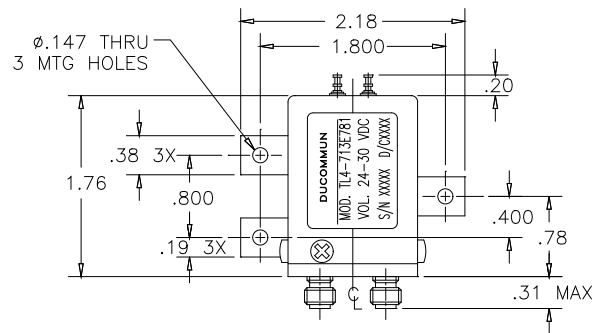
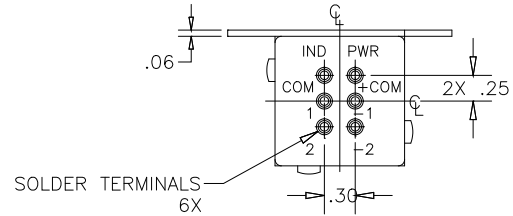
Frequency (GHz)	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dBmax.)
DC - 6	1.30	0.30	70
6 - 12	1.40	0.40	60
12 - 18	1.50	0.50	60
18 - 26.5	1.70	0.70	55
26.5 - 46	1.90	0.80	50

Outline Drawing



TL4 Series - Transfer 46 GHz Switch

Outline Drawing



Specifications

General Specifications

Actuating Voltage	24 - 30 VDC
Actuating Current	280 mA (max) at 28VDC & 20°C
Switching Time	20 ms (max)
RF Power	Average 3 watts
Operating Mode	Latching with indicating circuitry, self de-energizing circuitry, and suppression diodes

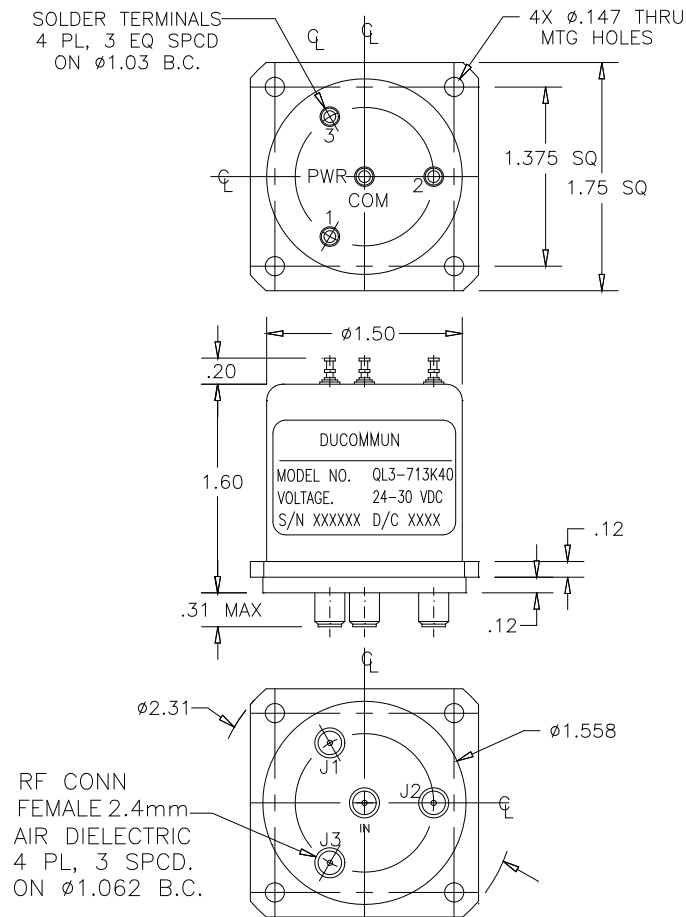
Frequency (GHz)	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dBmax.)
DC - 6	1.30	0.20	70
6 - 12	1.40	0.40	60
12 - 18	1.50	0.50	60
18 - 26.5	1.70	0.70	55
26.5 - 40	2.00	0.90	50
40 - 46	2.00	1.00	50

QL Series 1P3T - 1P6T 46 GHz Switch

Specifications

General Specifications	
Actuating Voltage	24 - 30 VDC (28VDC) nominal
Actuating Current	200 mA (max) at 28VDC & 72°F
Switching Time	15 ms (max)
RF Power	Average 3 watts at 40GHz
Operating Mode	Normally open

Frequency (GHz)	VSWR (max.)	Insertion Loss (dB max.)	Isolation (dB max.)
DC - 6	1.30	0.20	70
6 - 12	1.40	0.40	60
12 - 18	1.50	0.50	60
18 - 26.5	1.70	0.70 </td <td>55</td>	55
26.5 - 40	2.00	0.90	50
40 - 46	2.10	1.5	40



DL1 series



TL4 series



QL series

About Ducommun

Ducommun is a key supplier of microwave and millimeter wave components and subassemblies to our customers throughout the world. Ducommun has been making RF products since 1969, first as Dynatech (DMT) and then expanding our product offering with the acquisitions of DBP Microwave and WiseWave Technologies.

We have designs for commercial aircraft, military aircraft, defense, industrial, medical, SATCOM, telecommunications and test and measurement applications.

Products

- Amplifiers
- Waveguide detectors
- Horn antennas
- Frequency extenders
- Circulators / Isolators
- Attenuators
- Adapters and transitions
- Electromechanical switches
- Coaxial switch matrices
- Integrated switch matrices
- Hi-rel coaxial switches

Vision

At Ducommun, our vision is to be our customers' #1 provider of innovative electronics and structures solutions.

THE DUCOMMUN WAY

Honesty • Professionalism • Respect • Trust • Teamwork



Our Locations

