

# Amphenol® RF

Global RF Solutions

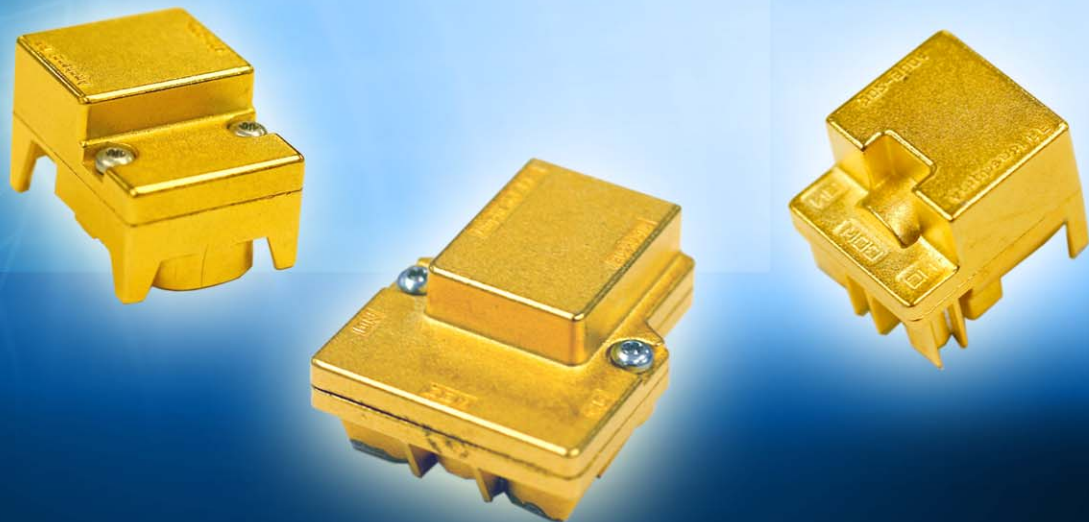
REMOTE  
ACTUATED  
SOLENOID  
RF  
SWITCHES

## FEATURES & BENEFITS

**50, 100 and 200 watt maximum output**  
**Single Pole-Double Throw (SPDT) design**  
**Compact size**  
**Surface mount, lead free**  
**Low VSWR and insertion loss DC-3 GHz**  
**High Isolation between RF lines (-40 dB min)**  
**Optimized materials and construction**

## APPLICATIONS

**Base Stations**  
**Telecommunications Systems**



## Remote Actuated Solenoid RF Switches

# RF Switch

Traditional coaxial relays have frame-mounted package designs and require hand soldering of the solenoid power leads. These designs are labor-intensive and increase the cost of the end product. Amphenol RF has developed more cost-effective coaxial relays that significantly reduce the labor involved with mounting to the PCB. This extra labor can be eliminated because Amphenol RF's designs can be applied directly to the PCB using the SMT process.

Each relay contains several features to withstand environmental conditioning. Highlights include a sealed construction with an IEC 529 rating of IP50 to ensure the RF switching cavity remains clean and particle free for error free operation in controlled office environments for extended life cycles. A robust internal design ensures protection against industry standard vibration and mechanical and thermal shock conditions.

## Specifications

### Electrical

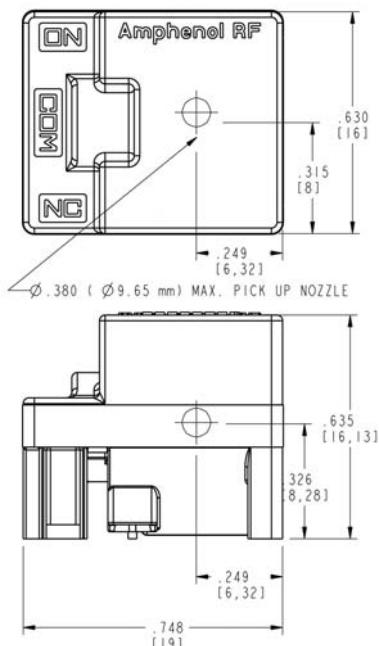
Impedance	50 or 75 $\Omega$ , nominal
VSWR	1.15 MAX DC to 1 GHz 1.2 MAX 1 to 2 GHz 1.25 MAX 2 to 3 GHz
Insertion Loss	.10 db MAX. DC to 1 GHz .15 db MAX. 1 to 2 GHz .20 db MAX. 2 to 3 GHz
Isolation	65dB MIN. DC to 1 GHz 60dB MIN. 1 to 2 GHz 50 dB MIN. 2 to 3 GHz
Power Rating:	50-200 WATTS @ 2 GHz (depending on configuration)
Operating Voltage:	24-30 VOLTS DC (depending on configuration)
Coil Resistance:	150 to 400 Ohms (depending on configuration)
Power Consumption:	3 WATTS MAX.
Contact Resistance:	50 m $\Omega$ MAX.
DWV:	500 Volts RMS

### Material

Upper and Lower Body	Zinc die cast, gold over nickel plate
PC and Flat Contacts	Beryllium copper or brass, gold over nickel plate
Compression Spring	Stainless Steel
Actuator, Coil Bobbin and Insulators	LCP or Peek
Coil Body and Plunger	Steel, zinc plated
Coil	Copper magnet wire, polyurethane overcoated with polyamide
Dust Seal	Silicone rubber

### Mechanical

Switching Time	15m SEC MAX.
Operating Temperature	-25°C to +85° (Temp of switch housing)
Life Cycles	10,000 MIN.
SMT Leaded or Lead-Free Re-Flow Temperature	260° MAX. for 10 seconds
Dust Protection	IEC 529 IP 50 Protection
Packaging	Tape and Reel, 100 Per Reel



Typical Product Size

