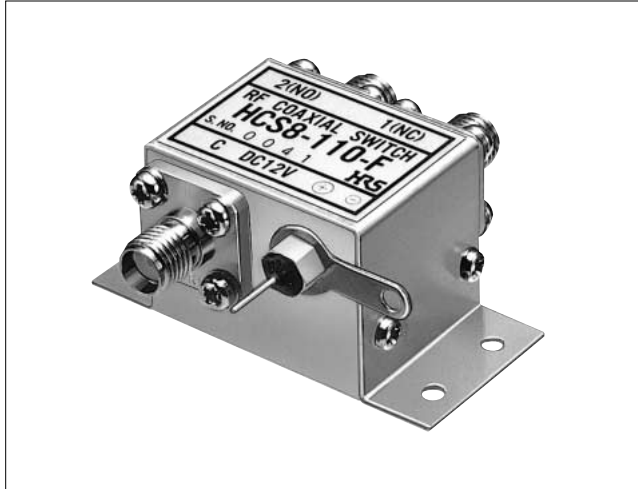


RF Coaxial Switches (DC to 2 GHz)

HCS8 Series



■Features

1.High Performance and High Reliability

These switches are of the SPDT fail-safe type and exhibit excellent power saving characteristics and vibration resistance.

2.SMA Connections

SMA type coupling (Hirose Electric HRM Series) has been used.

3.Small Size and Lightweight

These switches are small and light with a height of 20.5 mm, length of 43.0 mm, width of 20.0 mm, and weight of 37 g.

■Product Specifications

Rating	Frequency range	DC to 2 GHz	Operating temperature range	-20°C to +70°C
	Characteristic impedance	50Ω		(No freezing)
	Maximum usable power	1 W	Operating relative humidity	35 to 85%

Item	Standard	Conditions
1.Insulation resistance	1000 MΩ min.	Measured at 100 V DC
2.VSWR	1.2 max. 1.3 max.	Measured at DC to 1600 MHz Measured at 1600 to 2000 MHz
3.Insertion loss	0.3 dB max. 0.4 dB max. 0.5 dB max.	Measured at DC to 1000 MHz Measured at 1000 to 1600 MHz Measured at 1600 to 2000 MHz
4.Reverse Direction Loss	20 dB max.	Measured at DC to 2000 MHz
5.Vibration resistance	No electrical disconnections of 1μs or greater No damage, cracks, or parts looseness	Frequency of 10 to 55 Hz, overall amplitude of 1.52 mm, in 3 axial directions, 2 hours each
6.Shock resistance	No electrical disconnections of 1μs or greater No damage, cracks, or parts looseness	490 m/s ² acceleration, half sine wave, in 3 axial directions, 3 times each
7.Switching voltage and current	11 to 14 V DC 34 mA max.	In an environment of 20°C
8.Insertion/Withdrawal life	1 x 10 ⁶ times	—
9.Switching time	10 ms max.	—
10.Weight	37 g	—

●The test method conforms to JIS.

■Materials

Part	Material	Processing
External cladding	Aluminum	Conductive alumite
Substrate	Dielectric	Solder plating
Connector external cladding	Stainless steel	Passivated
Female contact	Beryllium copper	Gold plating
Insulation	Teflon	—

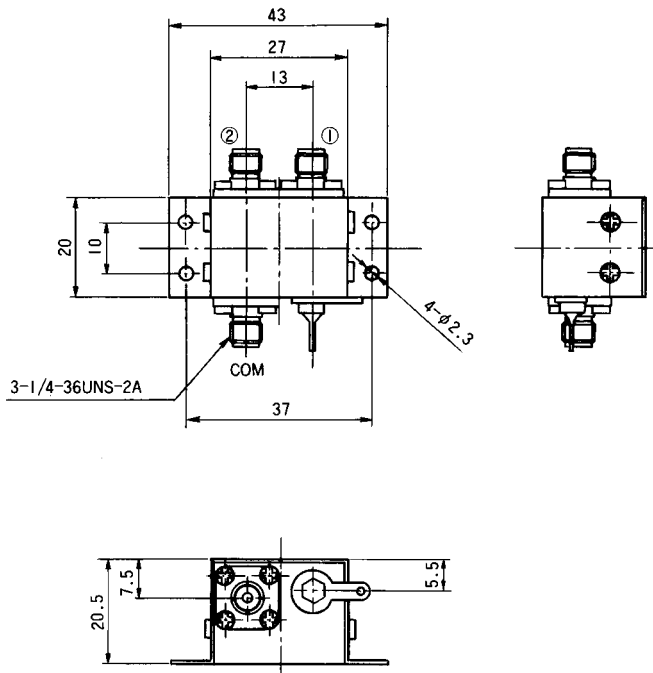
■Product Number Breakdown

HCS 8 - 1 1 0 - F

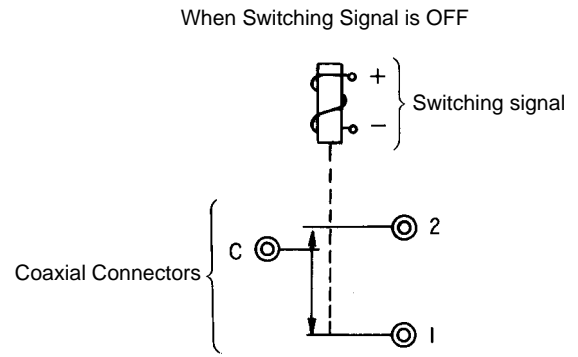
① ② ③ ④ ⑤ ⑥

① Series Name: HCS	④ Switching Voltage 1: 12V
② Series No: 8	⑤ Presence of Auxiliary Contacts 0: No
③ Type of Connector 1: SMA (Hirose Electric HRM Series)	⑥ Operation Method F: Fail-safe type

External Dimensions



Circuit Structure Diagram



Typical Data

