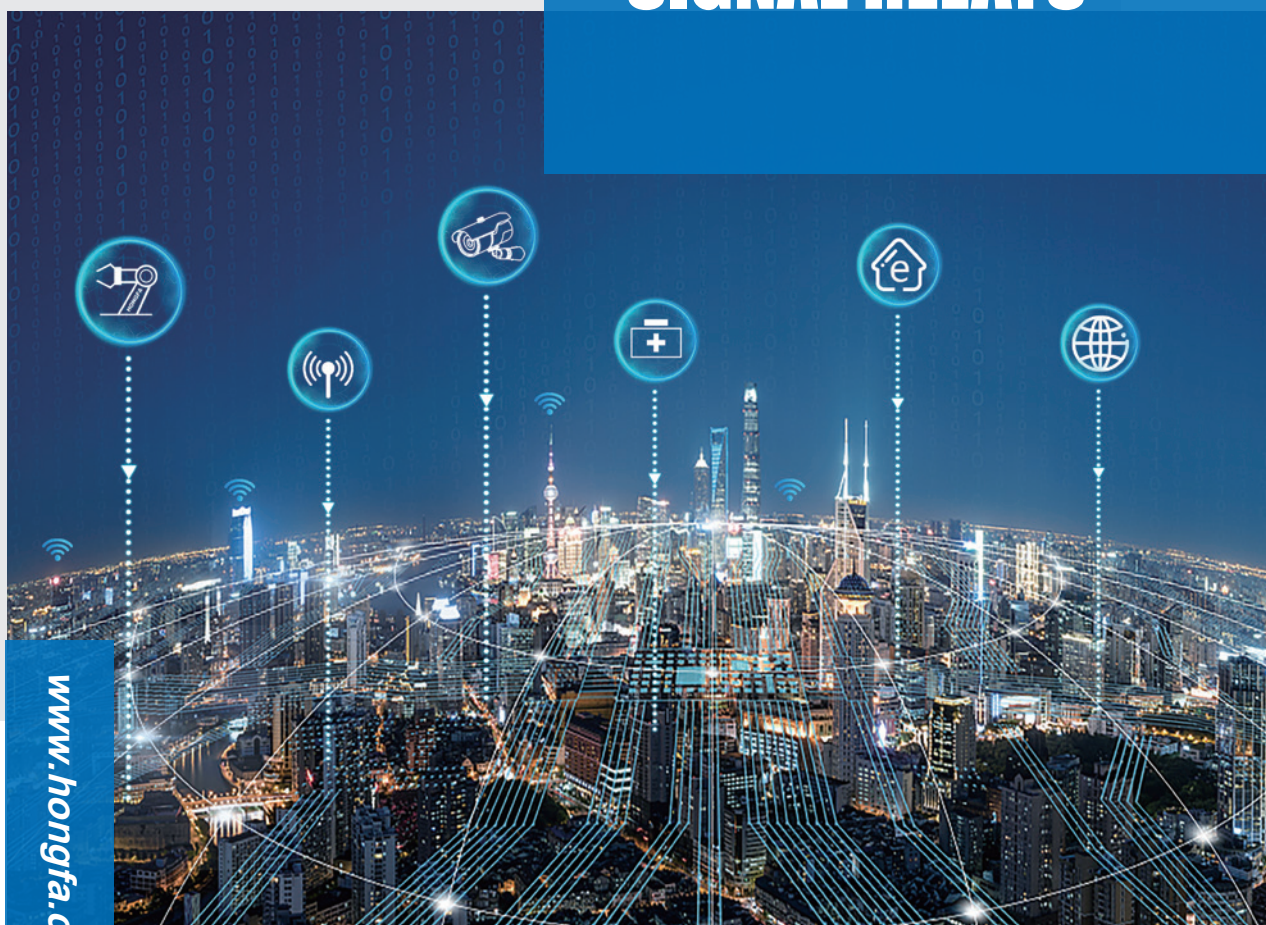


HFD5 5TH GENERATION SIGNAL RELAYS



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UPGRADE IN GLORY LAUNCH WITH HONOR

With the surging tide of industrial upgrading, a new round of scientific revolution and industrial transformation is booming along with higher requirements for signal relays in small size, low power consumption and high reliability, especially in the national key fields such as 5G communication, industrial testing equipment, medical equipment, security and new energy utilization etc. Hongfa is guided by market customer needs, focuses on the high-end market, adheres to core technology innovation, and successfully develops the fifth-generation signal relay. As an excellent relay sales and manufacturer in the world, the fifth-generation signal relay independently developed by Hongfa will promote the rapid development of different industries around the world and accelerate the pace of industry iteration with its excellent product performance.

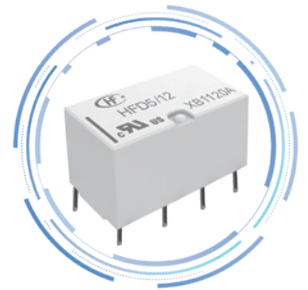
PRODUCT FEATURES



SMALLER SIZE FOR SPACE SAVING

Minimum dimension in the industry:
9.0 mm×4.8 mm×4.9 mm

It helps to reduce the overall size of overall units. Compared with HFD4, the volume of HFD5 is reduced by 40% and installation area by 34%. It is more delicate as a new solution for various applications.



LOWER COIL POWER FOR ENERGY SAVING

The coil power is 50mW, which is more than 64% lower than HFD4. It will save energy and reduce temperature rise of overall units with higher reliability.



DIRECTLY DRIVEN BY MICROPROCESSOR

Simplify the circuit design, save the machine space and device cost

For 5VDC, both single-side stable and 1-latching types, the coil current is $\leq 10\text{mA}$. There is then no need of intermediate driving components like triode, MOS etc. This will simplify the circuit and in turn save space and cost of overall unit.



REDUCE THE WEIGHT OF OVERALL UNIT FOR CONVENIENCE OF USE

The weight of a single HFD5 is $\approx 0.5\text{g}$, which is about 38% less than that of HFD4 (HFD4 weight $\approx 0.8\text{g}$). Take the unit with 512pcs HFD4 (single side stable) as an example. The overall unit weight can be reduced by 154g if adopting HFD5.



LOW-POWERED ELECTRICITY SUPPLY IS APPLICABLE FOR BETTER COST

HFD5 helps to reduce the heat, the volume as well as the cost of electricity supply. Take the unit with 512pcs HFD4 (single side stable) as an example. The electricity supply power can be reduced by 46W if adopting HFD5.



SMALLER SOUND IN OPERATION

Benefited from the delicate structure of HFD5, the switching time is $\leq 2\text{ms}$ and operation sound $\leq 30\text{dB}$. It provides more comfort applications such as smart home etc.





CONTACT DATA

Contact arrangement	2C
Contact resistance	100mΩ max. (at 10mA 30mVDC)
Contact material	Ag alloy+Au plated
Contact rating	1A 30VDC, 0.3A 125VAC
Max. switching voltage	250VAC/220VDC
Max. switching current	2A
Max. switching power	62.5VA/60W
Min. applicable load	10mV 10μA
Mechanical endurance	1×10 ⁸ OPS
Electrical endurance	1×10 ⁵ OPS
	(85°C, 1s on: 9s off, NO or NC, 1A 30VDC)
	1×10 ⁵ OPS
	(85°C, 1s on: 9s off, NO or NC, 0.3A 125VAC)

COIL

Coil power	Single side stable	See table"COIL DATA"
	1 coil latching	See table"COIL DATA"
Temperature rise	≤50K(1A Load, at 85°C)	

CHARACTERISTICS

Insulation resistance		1000MΩ(500VDC)
Dielectric strength	Between open contacts	750VAC 1min
	Between coil & contacts	1500VAC 1min
	Between contact sets	1000VAC 1min
Surge withstand voltage	Between open contacts (10X160μs)	1500V(FCC part 68)
	Between coil & contacts (2X10μs)	2500V(Telecordia)
Operate time (Set time)		≤2ms
Release time (Reset time)		≤2ms
Shock resistance	Functional	735m/s ²
	Destructive	980m/s ²
Vibration resistance	Functional	10Hz~55Hz 3.3mm DA
	Destructive	10Hz~55Hz 5.0mm DA
Humidity		5% ~ 85%RH
Ambient temperature		-40°C ~ 85°C
Termination		DIP, SMT
Unit weight		Approx. 0.5g
Construction		Plastic sealed

SAFETY APPROVAL RATINGS

UL/CUL	Ag alloy+Au plated	1A 30VDC 85°C, 2A 30VDC 40°C, 0.3A 125VAC 85°C, 0.5A 125VAC 40°C
TUV	Ag alloy+Au plated	1A 30VDC 85°C, 2A 30VDC 40°C, 0.3A 125VAC 85°C, 0.5A 125VAC 40°C

PRODUCT FEATURES

- Bifurcated move contact, with high reliability.
- High mechanical endurance: over 100 million ops with 200 million ops type available too.
- Single-side stable and 1-latching types available.
- Both THT and SMT types available.
- Comply with IEC 60335-1, IEC 62368-1 and FCC part 68 safety regulations.
- Low halogen type in accordance with IEC 61249-2-21 available.
- Product compliant with IEC 60079 available.

APPLICATIONS



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