

# HC Series — 3.5 kV Relays

REVISIONS				
REV.	ECO	DESCRIPTION	DATE	APPROVED
A	-	INITIAL DRAWING	09JUL2020	JR

## HC-1 No Load Switching

## HC-3 Make & Break Load Switching

### Product Facts for HC-1

- Widely used for RF applications
- Vacuum dielectric for low leakage current applications
- Copper contacts for high current capability
- Not designed for power switching
- Meets requirements of MIL-R-83725
- QPL version available, M83725/5-001

## HC-5 Make Only Load Switching

### Product Facts for HC-5

- Gas-filled for “make only” power switching
- SF-6 gas-filled for capacitive discharge applications
- Tungsten contacts for long life when power switching

### Product Facts for HC-3

- Tungsten contacts for long life when power switching
- Vacuum dielectric for power switching low current loads

### Product Specifications for HC-1, HC-3 and HC-5

Contact Arrangement — SPDT

Contact Form — C

Test Voltage, DC or 60 Hz (Peak) — 5 kV

Rated Operating Voltage (Peak) —  
 DC or 60 Hz — 3.5 kV  
 2.5 MHz — 2.5 kV  
 16 MHz — 2 kV  
 32 MHz — 1.5 kV

Continuous Carry Current, Max. —  
 DC or 60 Hz — HC-1 — 25 A  
                                   HC-3 — 18 A  
                                   HC-5 — 8 A  
 2.5 MHz — HC-1 — 14 A

16 MHz — HC-1 — 9 A

32 MHz — HC-1 — 7 A

Coil Hi-Pot (Vrms, 60 Hz) — 500 A

Contact Capacitance —  
 Between Open Contacts —  
 HC-1 — 2 pF

Open Contacts to Ground —  
 HC-1 — 2.5 pF

Contact Resistance, Max. —  
 HC-1 — 0.01 ohm  
 HC-3 — 0.02 ohm  
 HC-5 — 0.50 ohm\*

Operate Time, Max. — 6 ms

Release Time, Max. — 6 ms

Shock, 11ms, 1/2 Sine (Peak) — 50 g

Vibration —  
 Peak — 10 g (55 to 2000 Hz)

Operating Ambient Temperature Range — -55°C to +125°C

Mechanical Life —  
 HC-1, HC-3 — 2 million cycles  
 HC-5 — 1 million cycles

Weight, Nominal — 28.35 g (1.0 oz.)

#### Note:

\*Contact resistance for gas-filled relays is measured at 28 Vdc, 1 Amp

### Coil Data

Pickup, Max.	8 Vdc	16 Vdc	80 Vdc
Dropout	.5-5 Vdc	1-10 Vdc	5-50 Vdc
Coil Resistance ( $\pm 10\%$ )	80 $\Omega$	335 $\Omega$	6000 $\Omega$

Ratings listed are for 25°C, sea level conditions



TE CONNECTIVITY  
 CARPINTERIA, CA 93013

TITLE

RHC 1,3,5 - SERIES 3.5 KV RELAYS

DWG NO.

RHC 1,3,5 - SERIES

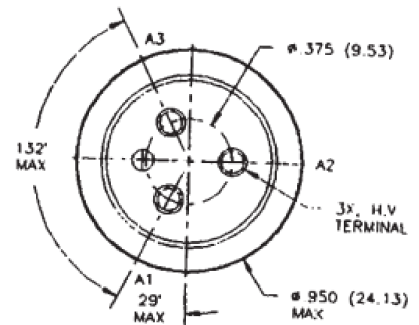
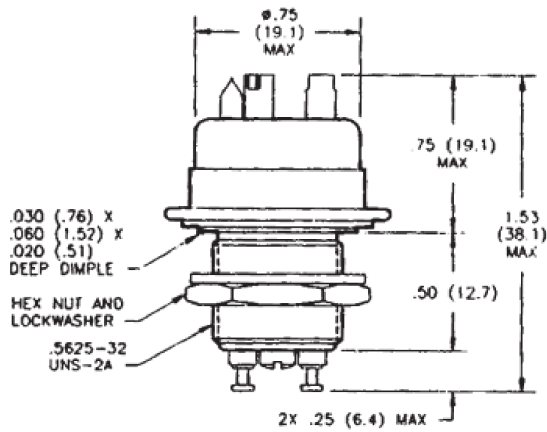
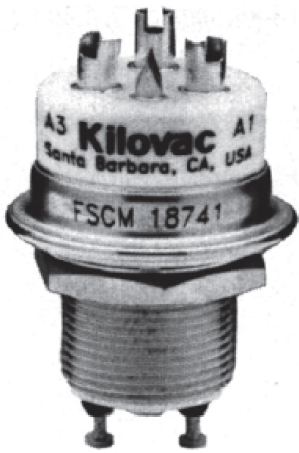
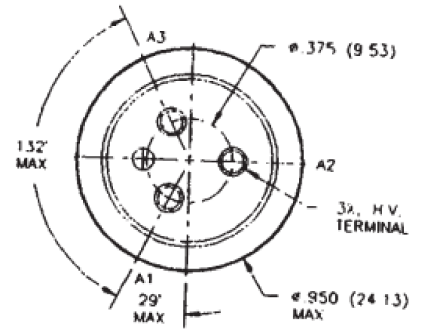
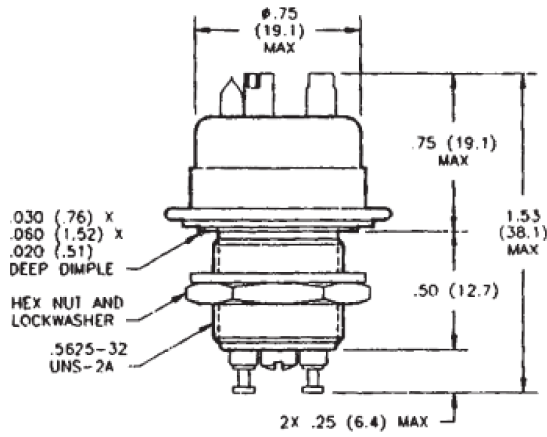
DS DATA SHEET

CAGE CODE  
 -

SCALE  
 NONE

SHEET  
 1 OF 2

REV  
 A



### Ordering Information

Sample Part Number **RHC- 1 /12Vdc**  
 RoHS Compliant  
 Series:  
 Model:  
 1  
 3  
 5  
 Coil Voltage:  
 Blank = 26.5 Vdc  
 /12Vdc = 12 Vdc  
 /115Vdc = 115 Vdc

ALL DIMENSIONS ARE IN INCHES(mm)



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TITLE		RHC 1,3,5 - SERIES 3.5 KV RELAYS		
DWG NO.		RHC- 1,3,5 - SERIES		
CAGE CODE	SCALE	SHEET	REV	
-	NONE	2 OF 2	A	

DS	DATA SHEET
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