



HERMETIC RELAY

4PDT - 2 A | C.O.T.S.

Series

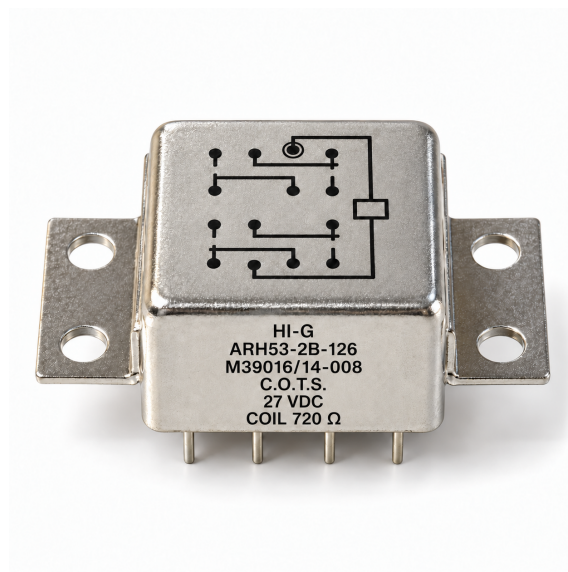
ARH53

Product Description

Miniature hermetically sealed DC relay with four changeover contacts. The ARH53 series provides resistive switching up to 2 A at 28 VDC in a compact metal enclosure.

Construction Features

- 4 form C contacts (4PDT)
- Hermetically sealed metal enclosure
- DC coil: 6, 12, 24 or 27 VDC
- 14 pin terminals
- Unflanged and flanged mounting



Environmental and Physical Specifications

Parameter	Specified data
Operating temperature	-65°C to +125°C
Relative humidity / low air pressure	98% at 40°C / 4 kPa
Sinusoidal vibration	196 m/s ² (approximately 20 g); 10 to 2000 Hz
Random vibration	20 (m/s ²) ² /Hz; 169.1 m/s ²
Shock resistance	735 m/s ² (approximately 75 g)
Steady-state acceleration	490 m/s ² (approximately 50 g)
Hermetic leakage rate	1 × 10 ⁻³ Pa·cm ³ /s maximum
Weight / body dimensions	10 g maximum / 15.5 × 15.5 × 8.2 mm maximum

Electrical Specifications

Parameter	Specified data
Resistive load and electrical life	1 A at 28 VDC: 50,000 cycles; 2 A at 28 VDC: 20,000 cycles
Initial contact resistance	50 mΩ maximum
Operate / release time	5 ms maximum / 5 ms maximum
Insulation resistance	1000 MΩ minimum, all listed insulation paths
Dielectric strength	500 Vrms at 50 Hz: open contacts, contact groups, coil to contacts and other insulation paths
Coil power	Approximately 1.3 W



HERMETIC RELAY

4PDT - 2 A | C.O.T.S.

Series

ARH53

Coil Data

Voltage code	Rated VDC	Maximum VDC	Resistance Ω $\pm 10\%$, 25°C	Pickup max. VDC, 25°C	Hold VDC, 25°C	Dropout min. VDC, 25°C
106	6	7	28	3.5	1.6	0.30
112	12	14	115	7.0	3.5	0.60
124	24	27	430	13.0	6.5	1.00
126	27	32	720	16.0	8.0	1.50

Voltage code	Pickup max. VDC -65°C to +125°C	Hold VDC -65°C to +125°C	Dropout min. VDC -65°C to +125°C
106	5.0	2.5	0.18
112	10.0	5.0	0.36
124	18.6	9.8	0.60
126	23.0	11.5	0.90

How to Order

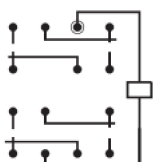
ARH53 - 2 B - 126

Field	Code and configuration
Series	ARH53
Header style	2 = pin terminals; 14 × Ø0.5 ±0.1 mm
Mounting style	A = unflanged; B = flanged, four mounting holes
Voltage code	106 = 6 VDC; 112 = 12 VDC; 124 = 24 VDC; 126 = 27 VDC

Available Part Numbers

Mounting A	Mounting B	Coil VDC	Coil Ω $\pm 10\%$
ARH53-2A-106	ARH53-2B-106	6	28
ARH53-2A-112	ARH53-2B-112	12	115
ARH53-2A-124	ARH53-2B-124	24	430
ARH53-2A-126	ARH53-2B-126	27	720

Wiring Diagram



4PDT - 4 form C
Viewed from terminal side.

The contrasting bead identifies the reference terminal shown in the terminal layout.



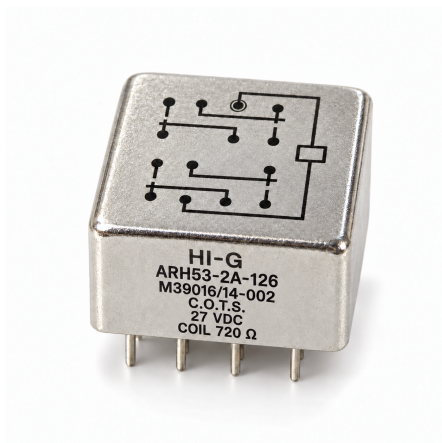
HERMETIC RELAY

4PDT - 2 A | C.O.T.S.

Series

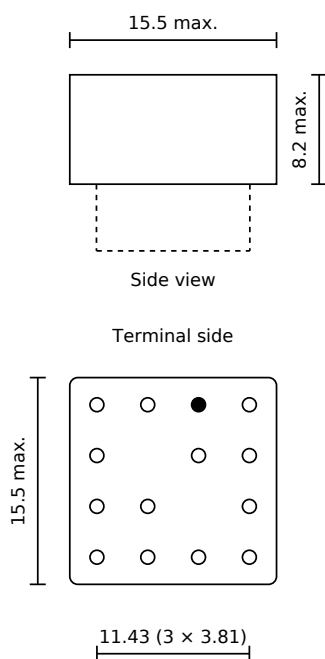
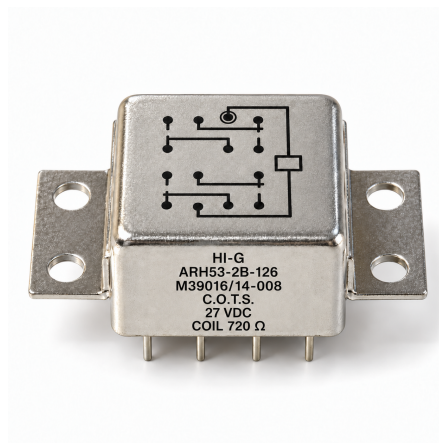
ARH53

Mounting Styles



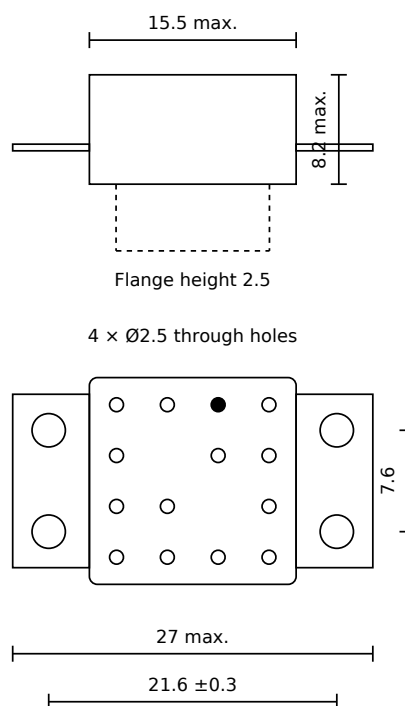
A - Unflanged

ARH53-2A-126 • 27 VDC • 720 Ω



B - Flanged

ARH53-2B-126 • 27 VDC • 720 Ω



Mechanical Data

Parameter	Dimension
Pin terminals / length	14 × Ø0.5 ±0.1 mm / 5 mm
Flange thickness / flange height	0.5 ±0.1 mm / 2.5 mm
Mounting B hole spacing	21.6 ±0.3 mm × 7.6 mm
Unspecified dimensional tolerance	±0.2 mm

All dimensions in millimetres. Drawings not to scale.



HERMETIC RELAY

4PDT - 2 A | C.O.T.S.

Series

ARH53

MIL Reference Cross-reference

C.O.T.S. series | Reference document: MIL-PRF-39016/14E, 31 July 2006.

Reference selection only. These references do not establish MIL qualification or direct interchangeability. The ARH53 specifications in this datasheet apply.

HI-G part number	MIL base reference	Coil VDC HI-G / MIL	MIL mounting / leads
ARH53-2A-106	M39016/14-005	6 / 6	No mount / wire
ARH53-2B-106	M39016/14-004	6 / 6	Flange / lug
ARH53-2A-112	M39016/14-007	12 / 12	No mount / wire
ARH53-2B-112	M39016/14-006	12 / 12	Flange / lug
ARH53-2A-124	M39016/14-003	24 / 22	No mount / wire
ARH53-2B-124	M39016/14-013	24 / 22	Flange / lug
ARH53-2A-126	M39016/14-002	27 / 26.5	No mount / wire
ARH53-2B-126	M39016/14-008	27 / 26.5	Flange / wire

Base references are shown without a failure-rate suffix. Full military PINs require a suffix L, M, P or R. No established failure-rate level is assigned to the ARH53 C.O.T.S. series.

Product Identification

Front marking: HI-G part number, military base reference, C.O.T.S., rated coil voltage and resistance. The wiring diagram is marked on the upper face.