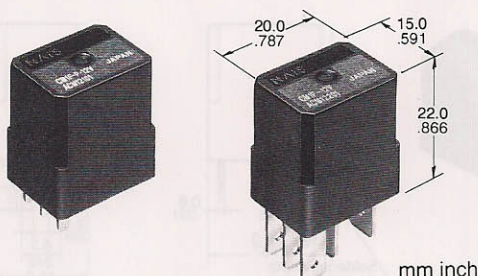


NAIS**COMPACT, SPACE-SAVING
AUTOMOTIVE RELAY****CM-RELAYS****Half the Size, Replace Mini-ISO Relay**

- 35 Amp Contact Rating, 100,000 Operations
- -40°C to +85°C -40°F to +185°F Operating Temperature
- High Shock Resistance for Drop Test
- Quick Connect and PC Board Type

SPECIFICATIONS**Contacts**

Type	12 V coil voltage
Arrangement	1 Form A, 1 Form C
Initial voltage drop	N.O.: Max. 0.5 V (at 35 A 14 V DC) N.C.: Max. 0.3 V (at 20 A 14 V DC)
Contact material	Silver alloy
Rating (resistive load)	
Nominal switching capacity	N.O.: 35 A 14 V DC N.C.: 20 A 14 V DC
Max. switching power	N.O.: 490 W N.C.: 280 W
Max. switching voltage	16 V DC
Max. switching current	See Contact Rating table
Expected life (min. ope.)	
Mechanical (at 120 cpm)	10 ⁶
Electrical (at rated load operating frequency 2 sec. ON, 2 sec. OFF)	10 ⁵ (Sealed type: 5×10 ⁴)

Coil

Nominal operating power	1.5 W
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Contact Rating

	12 V coil voltage		
	Form A	Form C	
		N.O.	N.C.
Max. carry current	20 A	20 A	10 A
Max. make current	100 A	100 A	30 A
Max. break current	35 A	35 A	20 A

Characteristics

Type	12 V coil voltage
Max. operating speed (at rated load)	15 cpm
Operate time*1 (at nominal voltage)	Max. 10 msec. (Initial)
Release time*1 (at nominal voltage)	Max. 10 msec. (Initial) (Type with diode inside: Max. 15 msec. (Initial))
Initial breakdown voltage	
Between open contacts	AC 500 V for 1 min.
Between contacts and coil	AC 500 V for 1 min.
Initial insulation resistance	Min. 20 MΩ at 500 V DC
Ambient temperature*2	-40°C to +85°C -40°F to +185°F
(Not freezing and condensing at low temperature)	
Storage temperature	-40°C to +85°C -40°F to +185°F
Shock resistance	Functional: Min. 200 m/s ² (20 G) Destructive: Min. 1,000 m/s ² (100 G)
Vibration resistance	Functional: 44.1 m/s ² (4.5 G) 10 to 500 Hz/0.5 hr in X, Y, Z directions for 4 hrs Destructive: 44.1 m/s ² (4.5 G) 10 to 2000 Hz/0.5 hr in X, Y, Z directions for 4 hours
Drop test	Capable of meeting specification after a 6.6 feet (2 m) drop onto concrete
Unit weight	Approx. 20 g .71 oz

*1 Excluding contact bounce time

*2 -40°C to +125°C -40°F to +257°F type also available as option.
Please consult us for details.**ORDERING INFORMATION**CM **1** **F** — **R** — **P** — **12V**

Contact arrangement	Protective construction	Classification of types	Mounting classification	Coil voltage (DC)
1a: 1 Form A 1: 1 Form C	Nil: Sealed type F: Flux-resistant type	Nil: Standard type D: with diode inside R: with resistor inside	Nil: Quick connect type P: PC board type	12 V 24 V