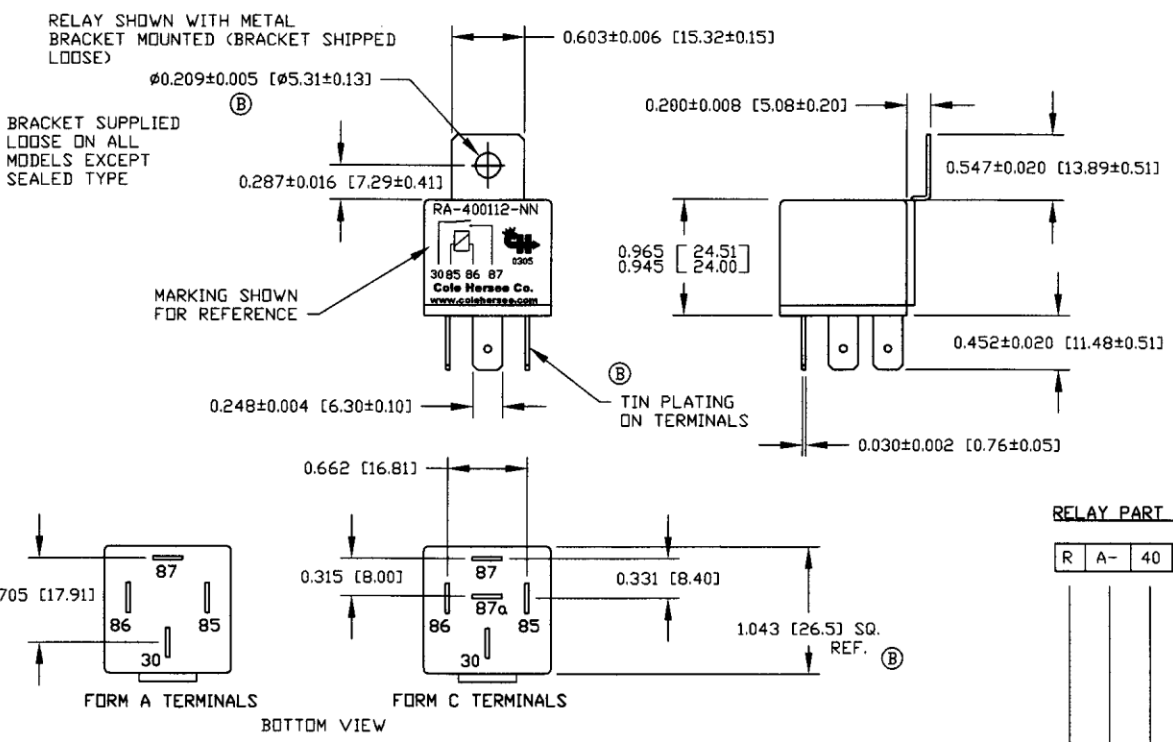
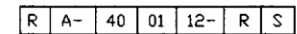


Revision Control Record			
Rev.	Description of Change	ECN No.	Date
A	NEW REVISION	03266	7/22/03
B	DIMENSIONS	03398	9/10/03
C	ADD MORE OPTIONS	04110	3/16/04

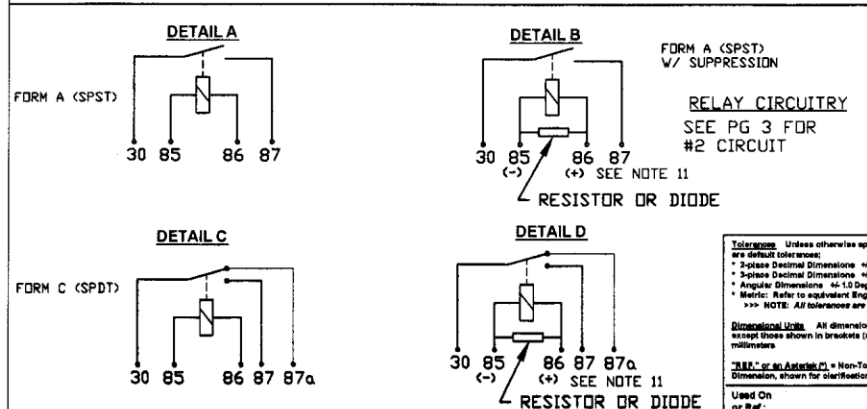


- SPECIFICATIONS:
- PULL IN VOLTAGE 7.8V MAX [12VDC], 15.6V MAX. [24VDC]
 - RELEASE VOLTAGE 1.2V MIN [12VDC], 2.4 MIN [24VDC]
 - MAX VOLTAGE 18VDC ON 12VDC RATED, 36VDC ON 24VDC RATED.
 - TEMPERATURE -40DEG C TO 85 DEG C
 - VIBRATION RESISTANCE
10-40 HZ, DOUBLE AMPLITUDE 1.5 MM
 - OPERATION LIFE:
100,000 ELECTRICAL
10,000,000 MECHANICAL
 - CONTACT RATING: N.D. 40A @ 14VDC, N.C. 30A @ 14VDC
N.D. 20A @ 24VDC, N.C. 15A @ 24VDC RESISTIVE
 - DIELECTRIC STRENGTH: 500V
 - COIL RESISTANCE: 90 OHMS ± 10% FOR 12DC,
360 OHMS FOR 24VDC.
 - RATED COIL CURRENT 133mA @ 12V, 67mA @ 24V
 - POLARITY ONLY REQUIRED ON DIODE TYPE

RELAY PART NUMBER STRUCTURE



- S = SEALED
- N = NOTHING [NO SEALING]
- R = RESISTOR
- D = DIODE
- N = NOTHING [NO SUPPRESSION]
- 12 = 12VDC
- 24 = 24VDC
- 00 = NO BRACKET (NO BRACKET FOR SEALED TYPE)
- 01 = BRACKET
- 40 = 40A [12VDC]
- 20 = 20A [24VDC]
- A = FORM A [SPST]
- C = FORM C [SPDT]
- 2 = FORM 2A [SPST] 2 TERMS © SEE PAGE 3
- R = RELAY



Tolerances Unless otherwise specifically noted, the following are default tolerances:

- 3-place Decimal Dimensions = ±.001
- 5-place Decimal Dimensions = ±.0001
- Angular Dimensions = ±1.0 Deg
- Metric: Refer to equivalent English Dimension Tolerance
- >>> NOTE: All tolerances are Non-Cumulative. <<<

Dimensional Units All dimensions are expressed in inches except those shown in brackets (xxx) are expressed in millimeters

"REF." or "AS SHOWN" = Non-Toleranced Reference Dimension, shown for identification purposes only.

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DO NOT SCALE - Dimensional variation may occur during printing/reproduction.

Special Characteristics:

- Critical Characteristics, relating to Safety and/or Regulatory Compliance
- Significant Characteristics relating to Process Control (BPC)
- Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer

(Note that the identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions & tolerances must be met.)

Cole Hersee Co.
20 Old Colony Ave., South Boston, MA, 02127
Phm 617-268-2100 Web www.colehersee.com

Description: **RELAY, 40A SERIES**

Drawing/Part No.: **RA-400112-NN**

Pg. 1 of 3

Used On or Ref: Scale: **1:1** Drawn: JT Date: 6/13/03 Responsible: JT Engineer: Pg. 1 of 3

Revision Control Record			
Rev.	Description of Change	ECN No.	Date
	SEE PAGE ONE FOR REVISION LEVEL		

Ⓒ	RC-200124-RN	DETAIL D	20A	FORM C	YES	24 VDC	RESISTOR	NO
	RC-200024-RS	DETAIL D	20A	FORM C	NO	24 VDC	RESISTOR	SEALED
	RC-200024-DS	DETAIL D	20A	FORM C	NO	24 VDC	DIODE	SEALED
	RC-200124-DN	DETAIL D	20A	FORM C	YES	24 VDC	DIODE	NO
Ⓒ	RC-200024-NS	DETAIL C	20A	FORM C	NO	24 VDC	NONE	SEALED
	RC-200124-NN	DETAIL C	20A	FORM C	YES	24 VDC	NONE	NO
Ⓒ	RA-200124-RN	DETAIL B	20A	FORM A	YES	24 VDC	RESISTOR	NO
	RA-200024-RS	DETAIL B	20A	FORM A	NO	24 VDC	RESISTOR	SEALED
	RA-200024-DS	DETAIL B	20A	FORM A	NO	24 VDC	DIODE	SEALED
	RA-200124-DN	DETAIL B	20A	FORM A	YES	24 VDC	DIODE	NO
Ⓒ	RA-200024-NS	DETAIL A	20A	FORM A	NO	24 VDC	NONE	SEALED
	RA-200124-NN	DETAIL A	20A	FORM A	YES	24 VDC	NONE	NO
Ⓒ	RC-400112-RN	DETAIL D	40A	FORM C	YES	12 VDC	RESISTOR	NO
	RC-400012-RS	DETAIL D	40A	FORM C	NO	12 VDC	RESISTOR	SEALED
	RC-400012-DS	DETAIL D	40A	FORM C	NO	12 VDC	DIODE	SEALED
	RC-400112-DN	DETAIL D	40A	FORM C	YES	12 VDC	DIODE	NO
Ⓒ	RC-400012-NS	DETAIL C	40A	FORM C	NO	12 VDC	NONE	SEALED
	RC-400112-NN	DETAIL C	40A	FORM C	YES	12 VDC	NONE	NO
Ⓒ	RA-400112-RN	DETAIL B	40A	FORM A	YES	12 VDC	RESISTOR	NO
	RA-400012-RS	DETAIL B	40A	FORM A	NO	12 VDC	RESISTOR	SEALED
	RA-400012-DS	DETAIL B	40A	FORM A	NO	12 VDC	DIODE	SEALED
	RA-400112-DN	DETAIL B	40A	FORM A	YES	12 VDC	DIODE	NO
Ⓒ	RA-400012-NS	DETAIL A	40A	FORM A	NO	12 VDC	NONE	SEALED
	RA-400112-NN	DETAIL A	40A	FORM A	YES	12 VDC	NONE	NO
	PART NUMBER	CIRCUITRY	RATING	TERMINAL LAYOUT	BRACKET	VOLTAGE	SUPPRESSION	SEALING

Tolerances: Unless otherwise specifically noted, the following are default tolerances:
 * 2-place Decimal Dimensions $\pm .05^\circ$
 * 3-place Decimal Dimensions $\pm .020^\circ$
 * Angular Dimensions $\pm 1.0 \text{ Deg}$
 * Metric: Refer to equivalent English Dimension Tolerance
 *** NOTE: All tolerances are Non-Cumulative. ***

Dimensional Units: All dimensions are expressed in inches except those shown in brackets (xxx) are expressed in millimeters

"REF." or an Asterisk (*) = Non-Tolerance Reference Dimension, shown for clarification purposes only.

Used On or Ref: Scale: **1:1**

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DO NOT SCALE: Dimensional variation may occur during printing/reproduction.

Drawn By: **JT** Date: **6/16/03**

Special Characteristics:

- Critical Characteristics, relating to Safety and/or Regulatory Compliance
- Significant Characteristics relating to Process Control (SPC)
- Control Dimension relating to Form - Fit - Function as defined by Cole Hersee Company and/or the Customer

(Note that the identification of any Characteristics as being "Special" does not alter the requirement that ALL specified dimensions & tolerances must be met.)

Responsible Engineer: **JT** Pg. 2 of 3

Cole Hersee Co.
 20 Old Colony Ave., South Boston, MA, 02127
 Phone 617-288-2100 Web: www.colehersee.com

Description: **RELAY 40A SERIES**

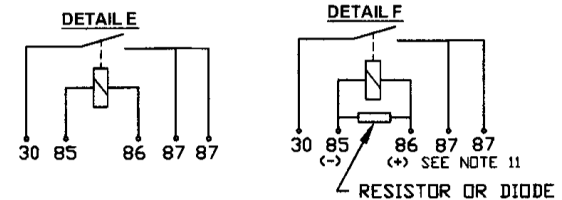
Drawing/Part No.: **RA-400112-NN**

Current Rev.: **SEE PG. 1 FOR REV.**

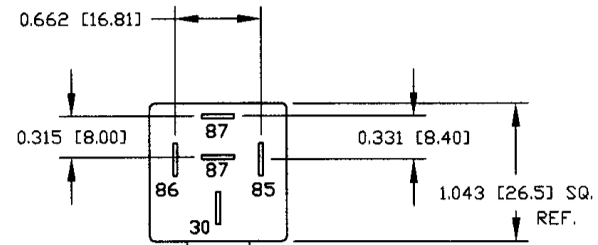
Revision Control Record			
Rev.	Description of Change	ECN No.	Date
	SEE PAGE ONE FOR REVISION LEVEL		

R2 RELAY CIRCUITRY ©

FORM 2 (SPST)



FORM 2 (SPST) W/ SUPPRESSION



FORM 2 TERMINALS
BOTTOM VIEW

R2-200124-RN	DETAIL F	20A	FORM 2	YES	24 VDC	RESISTOR	NO
R2-200024-RS	DETAIL F	20A	FORM 2	NO	24 VDC	RESISTOR	SEALED
R2-200024-DS	DETAIL F	20A	FORM 2	NO	24 VDC	DIODE	SEALED
R2-200124-DN	DETAIL F	20A	FORM 2	YES	24 VDC	DIODE	NO
R2-200024-NS	DETAIL E	20A	FORM 2	NO	24 VDC	NONE	SEALED
R2-200124-NN	DETAIL E	20A	FORM 2	YES	24 VDC	NONE	NO
R2-400112-RN	DETAIL F	40A	FORM 2	YES	12 VDC	RESISTOR	NO
R2-400012-RS	DETAIL F	40A	FORM 2	NO	12 VDC	RESISTOR	SEALED
R2-400012-DS	DETAIL F	40A	FORM 2	NO	12 VDC	DIODE	SEALED
R2-400112-DN	DETAIL F	40A	FORM 2	YES	12 VDC	DIODE	NO
R2-400012-NS	DETAIL E	40A	FORM 2	NO	12 VDC	NONE	SEALED
R2-400112-NN	DETAIL E	40A	FORM 2	YES	12 VDC	NONE	NO
PART NUMBER	CIRCUITRY	RATING	TERMINAL LAYOUT	BRACKET	VOLTAGE	SUPPRESSION	SEALING

©

Tolerances Unless otherwise specifically noted, the following are default tolerances:
 * 2-place Decimal Dimensions $\pm .03$ ©
 * 3-place Decimal Dimensions $\pm .020$
 * Angular Dimensions ± 1.0 Deg.
 * Metric: Refer to equivalent English Dimension Tolerance
 >>> NOTE: All tolerances are Non-Cumulative. <<<

Dimensional Limits All dimensions are expressed in inches except those shown in brackets (xxx) are expressed in millimeters

"REF." or "NO Asterisk" (©) = Non-Tolerance Reference Dimension, shown for clarification purposes only.

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- Ⓧ Significant Characteristics relating to Process Control (SPC)
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Description: **RELAY 40A SERIES**

Drawing/ Part No.: **RA-400112-NN**

Current Rev. SEE PG. 1 FOR REV.

Used On or Ref.:

Scale: **1:1**

Drawn By: **JT**

Date Drawn: **6/16/03**

Responsible Engineer: **JT**

Pg. 3 of 3