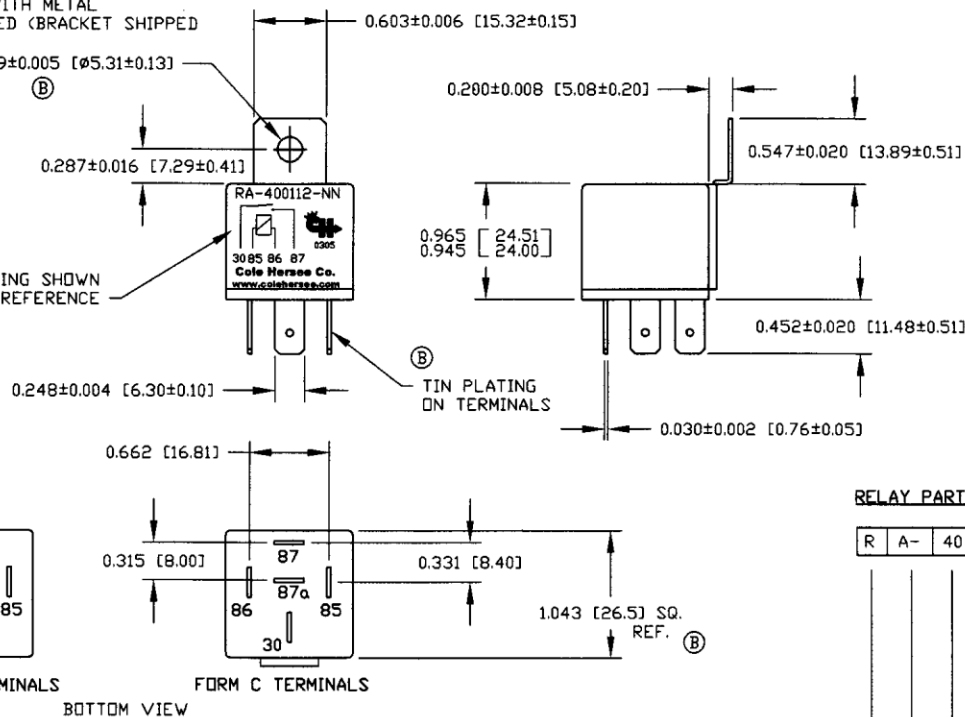


RELAY SHOWN WITH METAL
BRACKET MOUNTED (BRACKET SHIPPED
LOOSE)

BRACKET SUPPLIED
LOOSE ON ALL
MODELS EXCEPT
SEALED TYPE

MARKING SHOWN
FOR REFERENCE



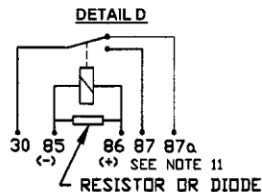
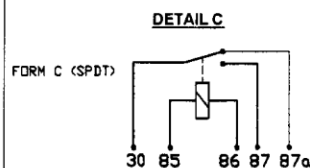
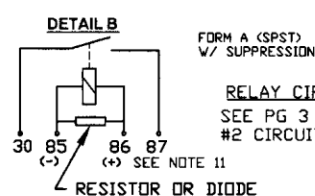
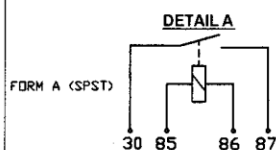
SPECIFICATIONS:

- 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 -40 DEG 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
- VCOIL 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

R A- 40 01 12- R S

- 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"
• 3-place Decimal Dimensions ±.002"
• 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 "in Assemblies" = Non-Toleranced Reference Dimension, shown for identification purposes only.

Used On or Ref:

Scale: 1:1

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DESIGN CONTROL It is the responsibility of the individual using/ reviewing this drawing to ensure that the revised design retains intent agreed with the revision level of the Controlled Document (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.

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.)

Responsible Engineer: JT
Date: 6/13/03
Pg. 1 of 3

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

Description: RELAY, 40A SERIES

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

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

Revision Control Record

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

Tolerances: Unless otherwise specifically noted, the following are default tolerances:
• 3-place Decimal Dimensions $\pm .05^\circ$
• 5-place Decimal Dimensions $\pm .020^\circ$
• 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 an Asterisk (*) = Non-Tolerance Reference Dimension, shown for clarification purposes only.

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

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DESIGN CONTROL: It is the responsibility of the individual using/referencing this drawing to ensure that the noted design revision level agrees with the revision level of the Controlled Document (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.

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 Characteristic 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 Characteristic 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
Phn: 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

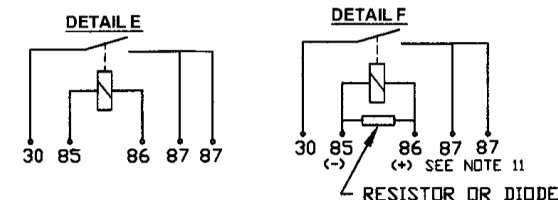
Rev.	Description of Change	ECN No.	Date
	SEE PAGE ONE FOR REVISION LEVEL		

R2-200124-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

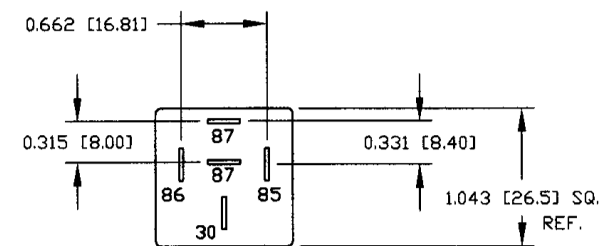
©

R2 RELAY CIRCUITRY ©

FORM 2 (SPST)



FORM 2 (SPST)
W/ SUPPRESSION



FORM 2 TERMINALS

BOTTOM VIEW

Tolerances Unless otherwise specifically noted, the following are default tolerances:
 • 2-place Decimal Dimensions $\pm .03"$ ©
 • 3-place Decimal Dimensions $\pm .02"$
 • 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 "As Shown" = Non-Tolerance Reference Dimension, shown for clarification purposes only.

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DESIGN CONTROL It is the responsibility of the individual using / referencing this drawing to ensure that the noted design revision level agrees with the revision level of the Controlled Document (Master Drawing). This is a NON-CONTROLLED DOCUMENT unless otherwise specifically noted.

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

Special Characteristics:

- Critical Characteristic, 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.)

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

Description:
RELAY 40A SERIES

Drawing / Part No.:
RA-400112-NN

Customer Rev.:
SEE PG. 1 FOR REV.

Used On or Ref.:

Scale: **1:1**

Drawn By: **JT**

Date: **6/16/03**

Responsible Engineer: **JT**

Pg. **3** of **3**