		REVISIONS			
Р	LTR	DESCRIPTION	DATE	DWN	APVD
	А	INITIAL DRAWN	12NOV2019	RV	МВ

# **Electrical Characteristics** Contact Ratings —

DC resistive — 2 amps at 28 volts DC inductive — 0.5 amps at 28 volts, 200 mH

AC resistive — 0.5 amps at 115 volts, 400 or 60 Hz (enclosure isolated from ground, or enclosure and movable contact at same potential)

AC — 0.125 amps at 115 volts (enclosure at line potential with respect to movable contact)

Low-level — low-level operation at 50 millivolts, 30 µA, 33 ohm miss level

#### Contact Resistance —

0.050 ohms max.: 0.150 ohms after life test

### Life —

D

100,000 operations at rated loads listed; 1,000,000 operations at low-level loads

# **Operating Characteristics**

**Operate Time** — 4 ms max.

Release Time — 4 ms max.

**Contact Bounce** — 1.5 ms

## Dielectric Strength —

500 volts rms at sea level; 350 volts rms at 70,000 feet

## Insulation Resistance —

1,000 megohms min. over temperature range

# **Environmental Characteristics**

**Vibration** — 30 G, to 3,000 Hz

**Shock** — 100 G at 11 ms

**Temperature** —  $-65^{\circ}$ C to  $+125^{\circ}$ C

# Coil Table (All Values DC)\* Type 3SBH, 4 Pole Relay - 250 mW Sensitivity: (Code 1)

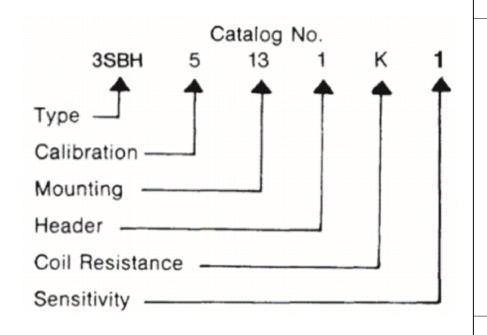
SENSITIVITY CODE: 1								
	Coil Resistance at 25C ohms	Voltage Calibrated, Code: 5						
Coil Code		Suggested Source	Maximum Operate	Release Voltage Range at 25C				
Letter		Volts†	Volts at 25C	Max.	Min.			
В	28 ± 10%	4.0- 7.0	2.7	1.6	0.3			
D	73 ± 10%	6.0-11.0	4.2	2.5	0.4			
E	115 ± 10%	8.0-14.0	5.4	3.2	0.6			
G	280 ± 10%	12 -22.0	8.4	5.0	0.8			
Н	430 ± 10%	15 -26.0	10.3	6.0	1.0			
K	$720 \pm 10\%$	20 -35.0	13.5	8.1	1.5			
N	$1040 \pm 10\%$	26 -46.0	17.5	10.5	1.9			

<sup>\*</sup>Values listed are factory test and inspection values. User should allow for meter variations.

**Example:** The relay selected in this example is a 4PDT .150-grid relay, voltage calibrated, end bracket mounting, 0.13 inch solder hook header, 720 ohms coil resistance, and 250 mW sensitivity. By choosing the proper code for each of these relay characteristics, the catalog number is identified as 3SBH5131K1. The letter R following sensitivity code indicates relay received 5000 operation miss-test, Ex. 3SBH5131K1R.

# **Ordering Instructions**

Catalog-selected Relays: The catalog number is derived by choosing the proper CODE for each of the six relay characteristics in the order in which the codes are listed.



THIS DRAWING IS A CO	ONTROLLED DOCUMENT.	DWN 12NOV2019 RV	TE Connectivity
		CHK 12NOV2019	TE CONNECTIVITY
DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD 12NOV2019	
en	0 PLC ± -	PRODUCT SPEC	- 3SBH-SERIES -
	1 PLC ± - 2 PLC ± - 3 PLC ± -		_
Ψ —	4 PLC ± - ANGLES ± -	_	SIZE CAGE CODE DRAWING NO RESTRICTED TO
MATERIAL	FINISH	WEIGHT	A3 - C-3SBH-SERIES -
_	_	CUSTOMER DRAWING	SCALE NTS SHEET 1 OF 3 REV A

<sup>†</sup>Applicable over the operating temperature range in circulating air.

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 SEE SHEET 1

В

## **Operating Characteristics**

**Operate Time** — 4 ms max. **Release Time** — 6 ms max.

Contact Bounce — 2.0 ms

**Dielectric Strength (Note 1)** — 500 volts rms at sea level; 350 volts rms at 70,000 feet

Insulation Resistance (Note 1) — 1,000 megohms min. over temperature range

# Semiconductor Characteristics at 25°C

Max. Negative Transient — 1 volt Breakdown Voltage — 100 Vdc @ 10 µA min.

**Max. Leakage Current** — 1 μA @ 50 Vdc

Note 1: Tests for dielectric withstanding voltage and insulation resistance should be made with "coil terminals" shorted together to avoid unnecessary electrical stress to semiconductor elements.

# **Electrical Characteristics**

Contact Ratings —

DC resistive — 2 amps at 28 volts

DC inductive — 0.5 amps at 28 volts,

200 mH AC resistive — 0.5 amps at 115 volts, 400 or 60 Hz (enclosure isolated from ground, or enclosure and movable contact at same potential)

AC — 0.125 amps at 115 volts (enclosure at line potential with respect to movable contact)

Low-level — 50 μÁ at 50mV

#### Contact Resistance —

0.050 ohms max.; 0.150 ohms after life test

**Life** — 100,000 operations at rated loads listed; 1,000,000 operations at low-level loads

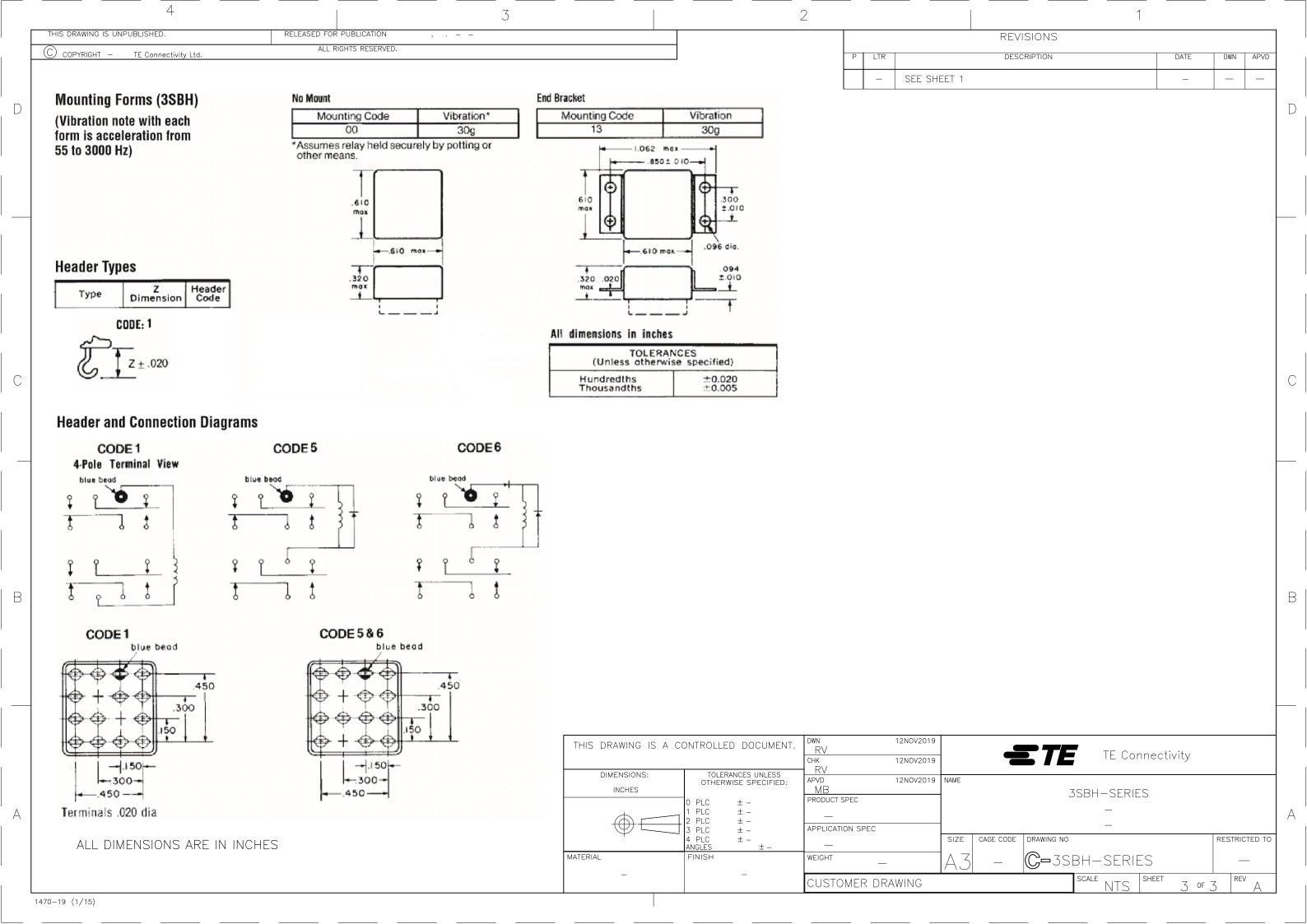
# Coil Table (All Values DC)\* Type 3SBH, 4 Pole Relay — 250 mW Sensitivity: (Code 5 single diode, Code 6 dual diodes)

Single Diode		SENSITIVITY CO	DDE: 5				
	Voltage Calibrated, Code: 5						
Coil Code	Coil Resistance at 25C ohms	Suggested Source Volts†	Maximum Operate Volts at 25C	Release Voltage Range at 25C			
Letter				Max.	Min.		
В	28 ± 10%	4.0- 7.0	2.7	1.6	0.3		
D	$73 \pm 10\%$	6.0-11.0	4.2 5.4 8.4 10.3	2.5	0.4		
E	115 ± 10%	8.0-14.0		3.2	0.6		
G	280 ± 10%	12 -22.0		5.0	0.8		
Н	430 ± 10%	15 -26.0		6.0	1.0		
к	720 ± 10%	20 -35.0	13.5	8.1	1.5		
N	1040 ± 10% 26 -46.0		17.5	10.5	1.9		
Dual Diode		SENSITIVITY CO	DDE: 6				
В	28 ± 10%	4.0- 7.0	3.7	2.3	0.5		
D E G	73 ± 10%	6.0-11.0	5.2	3.2	0.6		
E	115 ± 10%	8.0-14.0	6.4	3.9	0.8		
	280 ± 10%	12.0-22.0	9.4	5.7	1.0		
H	430 ± 10%	15 -26.0	11.3	6.7	1.2		
K	720 ± 10%	20 -35.0	14.5	8.8	1.7 2.1		
N	N 1040 ± 10% 26 -46.0			18.1   11.1			

<sup>\*</sup>Values listed are factory test and inspection values. User should allow for meter variations.

THIS DRAWING IS A C	DWN 12N	NOV2019		PTE TO CA			
		CHK 12N	VOV2019	_	STE TECC	onnectivity	
DIMENSIONS:	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APVD 12N	NOV2019 NAME				
INCHES	O PLC ± -	MB PRODUCT SPEC		3SBH-SERIES			
	1 PLC ± - 1 2 PLC ± -	_			_		
	3 PLC ± -	APPLICATION SPEC			_		1
	4 PLC $\pm -$ ANGLES $\pm -$	_	SIZ	E CAGE CODE	DRAWING NO		RESTRICTED TO
MATERIAL	FINISH	WEIGHT	$\Box$ A	3 –	C-3SBH-SER	IES	_
_	_	CUSTOMER DRAWI	ING	<u> </u>	SCALE NITS	SHEET 2 OF	γ REV Δ

<sup>†</sup>Applicable over the operating temperature range in circulating air.



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