

# Bimetallic Overload Relay Specifications

Bulletin Number 193-K, 193-T1

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## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a>	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a>	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.



Bulletin	193-K	193-T1
Type	Bimetallic Overload Relay	
Rated Current (Range)	0.1...12.5 A	0.1...90 A
Operating Voltage, Nominal	600V	
Overload Type	Bimetallic	
Trip Class (Fixed)	10	10
Ambient Temperature Compensated	✓	✓
Reset Type	Automatic and Manual	Automatic and Manual
Adjustment Range	1.5:1	1.5:1
Phase Loss	Normal Sensing	Normal Sensing
N.C. Trip Contact	✓	✓
N.O. Alarm Contact	✓	✓
Variable Frequency Drive (VFD) Compatible	✓	✓

**Standards Compliance—193-K**

IEC/EN 60947-1,-4-1,-5-1  
 UL 508  
 CSA 22.2. No. 14

**Certifications—193-K**

CE Marked  
 cULus Listed (File No. E33916, Guide NKCR, NKCR7)

**Standards Compliance—193-T1**




IEC/EN 60947-1, -4-1, -5-1  
 UL508  
 CSA C22.2 No.14

**Certifications—193-T1**


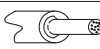

cULus (File No. E33916, Guide NKCR, NKCR7),  
 CE marked

## Specifications

## Main Circuits

		193-K
<b>Rated Isolation Voltage <math>U_i</math></b>		690V
Rated Impulse Strength $U_{imp}$		6 kV
Rated Operating Voltage $U_e$ IEC/UL		690V AC / 600V AC
<b>Wiring cross section Terminal type</b>		
<b>Terminal screws</b>		M3.5
 Fine stranded with ferrule [mm <sup>2</sup> ]		2 x (1.5...4)
 Solid or coarse stranded [mm <sup>2</sup> ] [AWG]		2 x (1.5...4) 2 x (16...12)
Recommended torque [N•m] [lb•in]		1.2 10.6
Pozidriv screwdriver	Size	2
Slotted screwdriver	[mm]	1 x 6

## Control Circuits

		193-K
<b>Rated Isolation Voltage <math>U_i</math></b>		690V AC
Rated Impulse Strength $U_{imp}$		4 kV AC
Rated Operating Voltage $U_e$ IEC/UL		690V AC/600V AC
Rating Designation		A600/Q300
Rated Operating Current $I_e$		N.O./N.C.
AC-15	24V [A]	4
	240V [A]	2
	400V [A]	1.6
	690V [A]	0.15
DC-13	24V [A]	2
	110V [A]	0.4
	220V [A]	0.25
	440V [A]	0.08
Thermal Current $I_{the}$ [A]		5
Short-circuit withstand, fuse gG [A]		6
Contact Reliability		15V, 2 mA
<b>Wiring cross section Terminal type</b>		
<b>Terminal screw</b>		M 3.5
 Fine stranded with ferrule [mm <sup>2</sup> ]		2 x (1...4)
 Solid or coarse stranded [mm <sup>2</sup> ] [AWG]		2 x (1...4) 2 x (18...12)
Recommended torque [N•m] [lb•in]		1.2 10.6
Pozidriv screwdriver	Size	2
Slotted screwdriver	[mm]	1 x 6