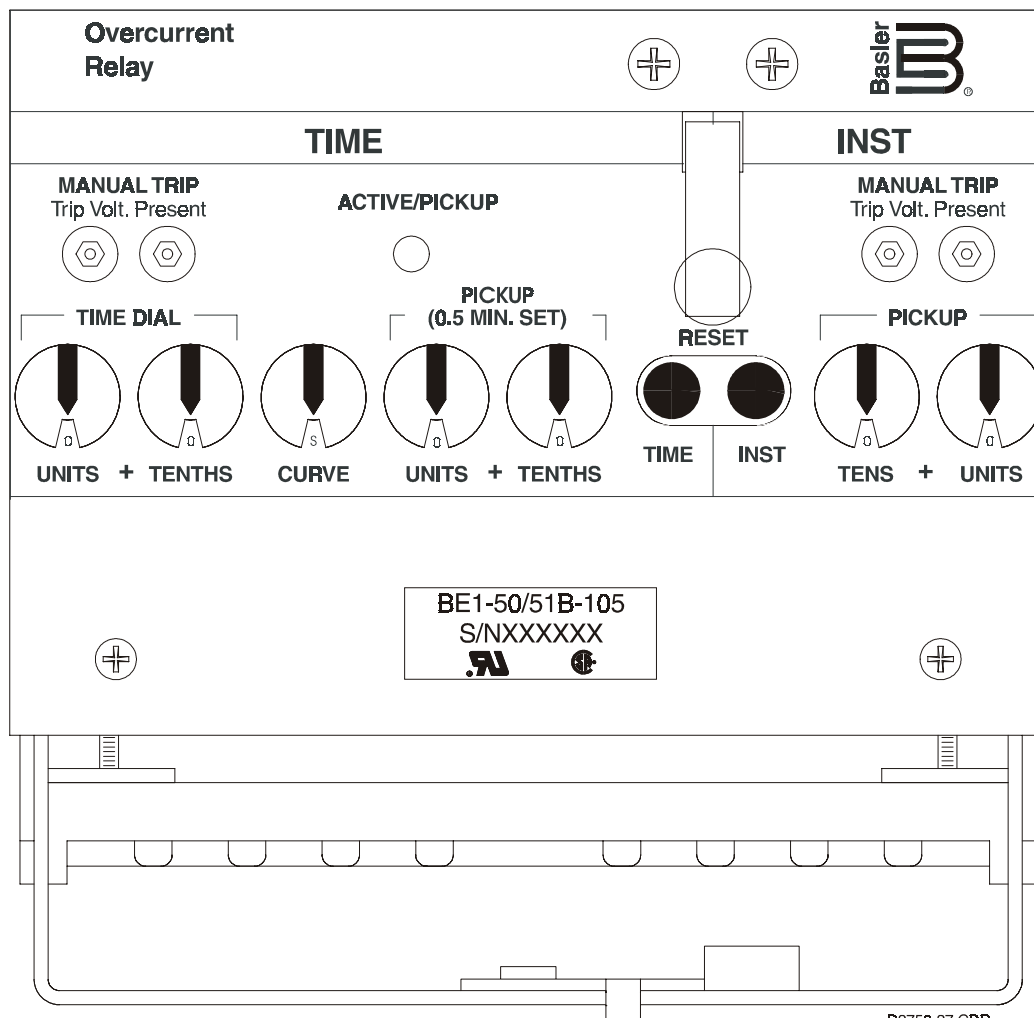


INSTRUCTION MANUAL

FOR

OVERCURRENT RELAY BE1-50/51B



D2750-27.CDR
12-05-00

Basler Electric

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or 60 hertz, instantaneous element delays, curve sets, and instantaneous or integrating reset characteristics. The locations and description of these switches is provided in Section 2. Integrating reset is available in 100 series relays (i.e. - BE1-50/51B-105) when there is adequate input current to power the relay. Integrating reset is available in 200 series relays (i.e. - BE1-50/51B-205) even when the input current falls to zero. Two-hundred series relays also have additional characteristic curves available through curve set selection.

Table 1-1. BE1-50/51B Overcurrent Relays, One Ampere CT Secondary, 50/60 Hertz

Model Number	Case Style	SW3-3 Selects	Sensing Input Range (Amps)	
			TIME	INST
BE1-50/51B-101*	A1	0.2 Second Delay	0.1 - 3.18	0.2 - 19.8
BE1-50/51B-201*	A1	Curve Set	0.1 - 3.18	0.2 - 19.8
BE1-50/51B-102*	S1 (Projection Mount)	0.2 Second Delay	0.1 - 3.18	0.2 - 19.8
BE1-50/51B-202*	S1 (Projection Mount)	Curve Set	0.1 - 3.18	0.2 - 19.8
BE1-50/51B-103*	S1 (Semi-Flush Mount)	0.2 Second Delay	0.1 - 3.18	0.2 - 19.8
BE1-50/51B-203*	S1 (Semi-Flush Mount)	Curve Set	0.1 - 3.18	0.2 - 19.8

Table 1-2. BE1-50/51B Overcurrent Relays, Five Ampere CT Secondary, 50/60 Hertz

Model Number	Case Style	SW3-3 Selects	Sensing Input Range (Amperes)	
			TIME	INST
BE1-50/51B-105*	A1	0.2 Second Delay	0.5 - 15.9	1.0 - 99.0
BE1-50/51B-205*	A1	Curve Set	0.5 - 15.9	1.0 - 99.0
BE1-50/51B-106*	S1 (Projection Mount)	0.2 Second Delay	0.5 - 15.9	1.0 - 99.0
BE1-50/51B-206*	S1 (Projection Mount)	Curve Set	0.5 - 15.9	1.0 - 99.0
BE1-50/51B-107*	S1 (Semi-Flush Mount)	0.2 Second Delay	0.5 - 15.9	1.0 - 99.0
BE1-50/51B-207*	S1 (Semi-Flush Mount)	Curve Set	0.5 - 15.9	1.0 - 99.0

NOTE:

- * 100 series relays (e.g. - BE1-50/51B-105) have the integrating reset function when there is adequate input current to power the relay. 200 series relays (e.g. - BE1-50/51B-205) have the integrating reset function even when the input current falls to zero.

SPECIFICATIONS

BE1-50/51B Overcurrent Relays are available with the following features and capabilities.

Current Sensing Input

(1 Ampere Unit)

Continuous current: 2.8 amperes. One second current: 80 amperes.

(5 Ampere Unit)

Continuous current: 14 amperes. One second current: 400 amperes.

Surge Withstand Capability

Oscillatory Qualified to IEEE C37.90-1989 Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems.

Fast Transient Qualified to IEEE C37.90-1989 Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems.

Impulse Test Qualified to IEC 255-5.

Radio Frequency Interference (RFI) Field tested using a five watt, hand held transceiver operating at random frequencies centered around 144 megahertz and 440 megahertz, with the antenna located six inches from the relay in both horizontal and vertical planes.

Patent Patented in U.S., 1998, U.S. Patent No. 5751532.

**UL Recognized/
CSA Certified** UL Recognized per Standard 508, UL File No. E97033. CSA Certified per Standard CAN/CSA-C22.2 No. 14-M91, CSA File No. LR 23131. Note: Output contacts are not UL Recognized/CSA Certified for voltages greater than 250 volts.

Temperature

Operating Range
-40°C (-40°F) to 70°C (158°F)

Recommended Storage Range
-50°C (-58°F) to 50°C (122°F).

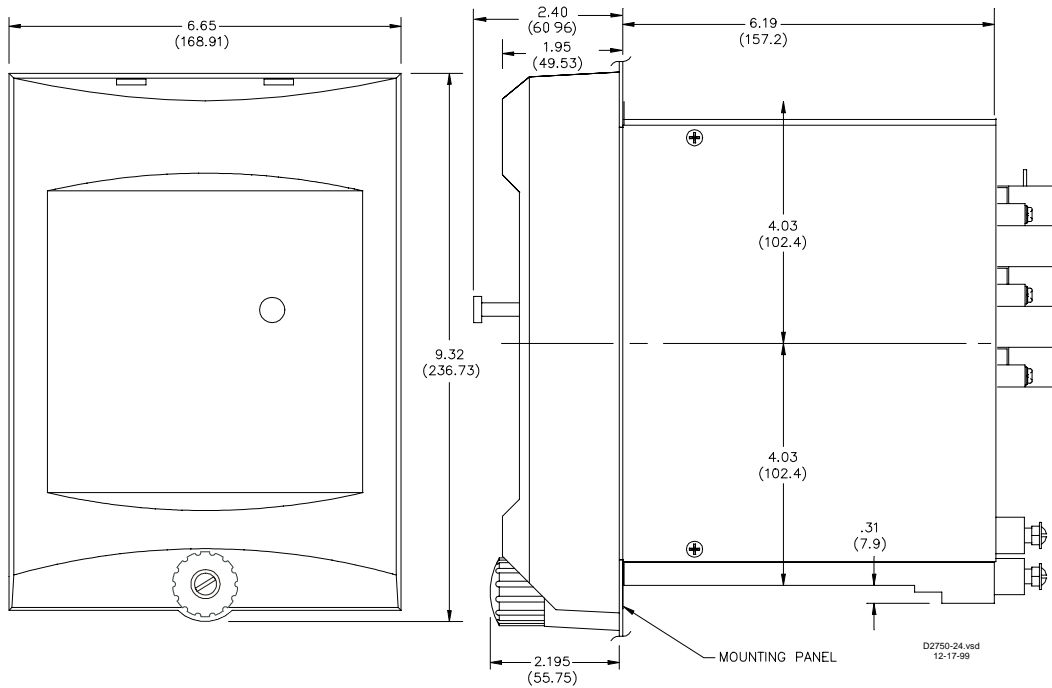
Shock 15 g in each of three mutually perpendicular planes.

Vibration 2 g in each of three mutually perpendicular planes swept over the range of 10 to 500 hertz for a total of six sweeps, 15 minutes each sweep.

Weight 8.6 pounds.

CHARACTERISTIC CURVES

Figures 1-6 through 1-14 illustrate the characteristic curves that are programmed into the nonvolatile memory of series 100 relays. Figures 1-6 through 1-19 illustrate the characteristic curves that are programmed into the nonvolatile memory of series 200 relays. To order full-size drawings of these characteristic curves, contact Customer Service Department of the Power Systems Group, Basler Electric, and request publication number 9 2520 00 999 (Figures 1-6 through 1-19). These publications contain full size characteristic curves on transparent paper (vellum).



NUMBERS IN PARENTHESES INDICATE METRIC DIMENSIONS (MILLIMETERS).
ALL OTHER DIMENSIONS ARE IN INCHES.

Figure 4-4. Outline Dimensions For S1 Case, (Semi-Flush Mount)

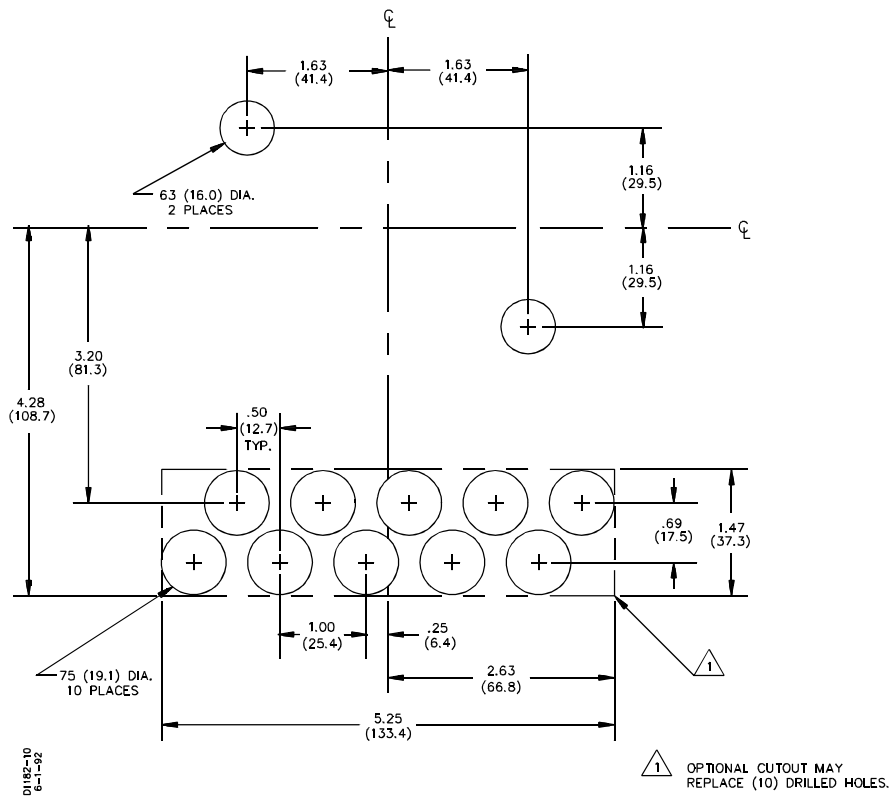


Figure 4-5. Panel Drilling Diagram S1 Case, (Projection Mount)