ABB Power T&D Company Inc.
Relay Division
Coral Springs, FL
Allentown, PA

September, 1990
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Mailed to: E, D, C/41-500B

Device Number: 62

CIRCUIT SHIELD®

Type 62B Time Delay Relays

Application

The Type 62B is an accurate solid state timing relay designed especially for use in breaker failure protection schemes. The relay features digital counting techniques for high accuracy and repeatability. The Type 62B must be used in conjunction with a fault detector relay such as the Type 50B or Type 50H to form a breaker failure scheme.

Figure 1 shows a typical arrangement. For this scheme, when a trip signal appears on the trip bus, contacts on the Type 62B close, allowing the fault detector to see the current. This control of the fault detector is accomplished by using its torque control terminals. The fault detector contacts will then close, providing a fault detector input signal to the Type 62B and starting its timing cycle. The other contact of the fault detector is used to re-trip the breaker through a second trip coil. For a normal interruption of the fault, the fault detector will drop out and the timer will reset. In the event of a breaker failure, the timer will time out and pick up the output relay tripping the breaker failure lockout relay.

Features

- Time delay on pickup, or drop-out, or both
- Operation indicator
- Built-in test
- High seismic capability to 6g ZPA
- Drawout construction
- Transient immunity
- 2 year warranty

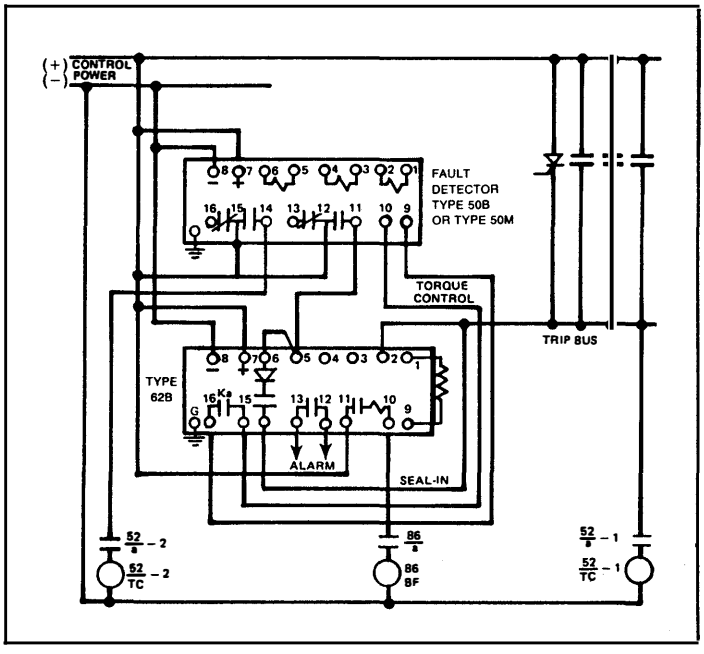

Figure 1 — Typical Breaker Failure Scheme

Specifications

Time Delay:	1-999 milliseconds in 1 ms increments
Fixed Output Stage Delay:	4-9 milliseconds
Accuracy:	±2% or ±4 ms whichever is greater over temperature range −20 to +70°C and control power range 100-140 Vdc.
Reset Time:	7 ms maximum
Control Power:	125 Vdc nominal, 20 ma standby, 70 ma maximum
Input Burden:	Standard Input - 2.5 ma, each circuit, continuously rated. Special input for SCR Tripping - 25 ma., each circuit, 60 second rating
Operating Time Ka Relay:	4-9 milliseconds
Operating Temperature:	−20°C to +70°C
Output Circuit:	2 normally open contacts (one with series target coil); rated at 125 Vdc 30A tripping 5A continuous 0.3A break, inductive
Series Target Coil:	1A minimum trip current required to insure target operation. Rated 30A tripping.
Dielectric Strength:	2000 Vac rms, 60 seconds, all circuits to ground.
Seismic Capability:	More 6g ZPA either AXIS biaxial broadhead multifrequency vibration without damage or malfunction (ANSI/IEEE C37.98)
Transient Immunity:	More than 2500V, 1MHz bursts at 400 Hz repetition rate, continuous (ANSI C37.90.1 SWC); Fast Transient Test; EMI Test.

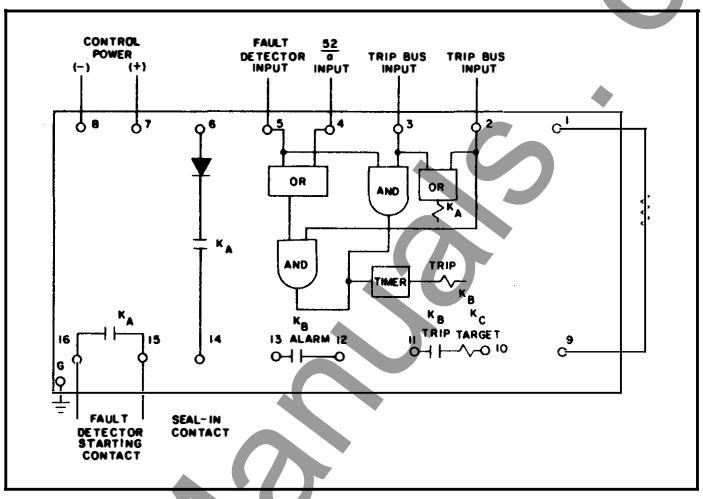

Figure 2 — Internal Connections

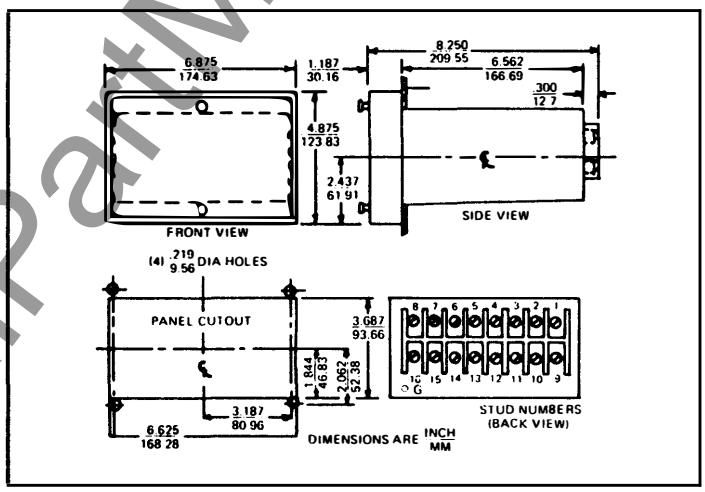

Figure 3 — Relay Outline and Drilling

How To Specify

Relay shall be Asea Brown Boveri Type 62B or equal. Relay shall be capable of withstanding up to 6g ZPA seismic stress without malfunction. A magnetic operation indicator which retains position on loss of control power shall be provided. Built-in means shall be provided to allow operational tests without additional equipment.

Further Information

List Prices: PL 41-020
Technical Data: TD 41-025
Instruction Book: IB 7.7.1.7-5①
Other Protective Relays:
Application Selector Guide, TD 41-016

① Available upon request, only from Allentown Plant.

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For Use with Fault-Detector Type 50B or Type 50H

CIRCUIT SHIELD ®

Type 62B Time Delay Relays

Type	Timing Range	Input Terminal 2	Input Terminal 3	① Control Voltage	Catalog Numbers Drawout Test Case
62B	0 - 0.999 seconds	Standard	Standard	125 Vdc 110 Vdc	417B1044 417B1004
		For SCR	For SCR	125 Vdc 110 Vdc	417B1043 417B1003
		Standard	For SCR	125 Vdc 110 Vdc	417B1042 417B1002
		For SCR	Standard	125 Vdc 110 Vdc	417B1041 417B1001

Internal Connections: 16D217F

① For other control voltages contact nearest District Office.

To place an order, or for further information, contact the nearest District Office.

Internal Connection Diagrams

Note: Refer to Instruction Book IB 7.7.1.7-5② for contact logic data.

② Available upon request, only from Allentown Plant.

16D217F Type 62B
Breaker Failure Timing Relay
Drawout Test Case