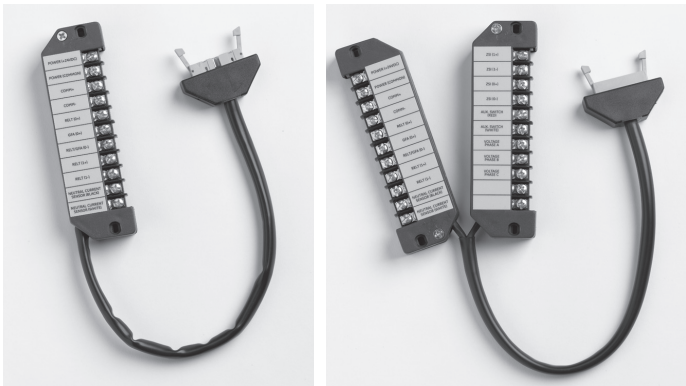


GEH-706 Installation Instructions

Distribution Cable Terminal Block

For Spectra® RMS Molded-Case Circuit Breakers
with *microEntelliGuard*™ Trip Units

For Catalog Number SDCTBA11C, SDCTBA22C
UL LISTED Circuit Breaker Accessory



Overview

The General Electric Distribution Cable Terminal Block is a modular attachment primarily used to provide an alternate means of input to Spectra® RMS Molded-Case Circuit Breakers with *microEntelliGuard*™ Trip Units. The terminal block input/output connections are as follows:

Spectra® RMS Breaker with *microEntelliGuard*™ using Terminal Block 11C

- Control power (+24vdc)
- Control power (-common)
- System communications (Comm. +)
- System communications (Comm. -)
- reduced energy let-through (RELT O +)
- ground fault alarm (GFA O +)
- ground fault alarm/ reduced energy let-through (RELT/GFA O -)
- reduced energy let-through (RELT I +)
- reduced energy let-through (RELT I -)

- Neutral current sensor - black (for equipment ground fault)¹
- Neutral current sensor - white (for equipment ground fault)¹

Spectra® RMS Breaker with *microEntelliGuard*™ using Terminal Block 22C

- Control power (+24vdc)
- Control power (-common)
- System communications (Comm. +)
- System communications (Comm. -)
- reduced energy let-through (RELT O +)
- ground fault alarm (GFA O +)
- ground fault alarm/ reduced energy let-through (RELT/GFA O -)
- reduced energy let-through (RELT I +)
- reduced energy let-through (RELT I -)
- Neutral current sensor - black (for equipment ground fault)¹
- Neutral current sensor - white (for equipment ground fault)¹
- zone select interlock (ZSI I +)
- zone select interlock (ZSI I -)
- zone select interlock (ZSI O +)
- zone select interlock (ZSI O -)
- breaker position (Aux. Switch [RED])
- breaker position (Aux. Switch [WHITE])
- voltage A (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- voltage B (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)
- voltage C (must be from Voltage Module or Voltage Conditioner Plate or Voltage Conditioner Assembly)

¹ Neutral current sensor input is required for 3Ø /4W or 1Ø /3W systems. For 3Ø /3W systems, do not make any connections.

The Distribution Cable Terminal Block is used to carry a variety of electronic signals between Spectra® RMS Molded Case Circuit Breakers with *microEntelliGuard*™ Trip Units. These breakers are interconnected via daisy-chained terminal blocks with common power, communication wiring, and voltage wiring (SDCTBA22C only). Figures 1 and 2 show how the Distribution Cable Terminal Block is used in a typical *microEntelliGuard*™ system.

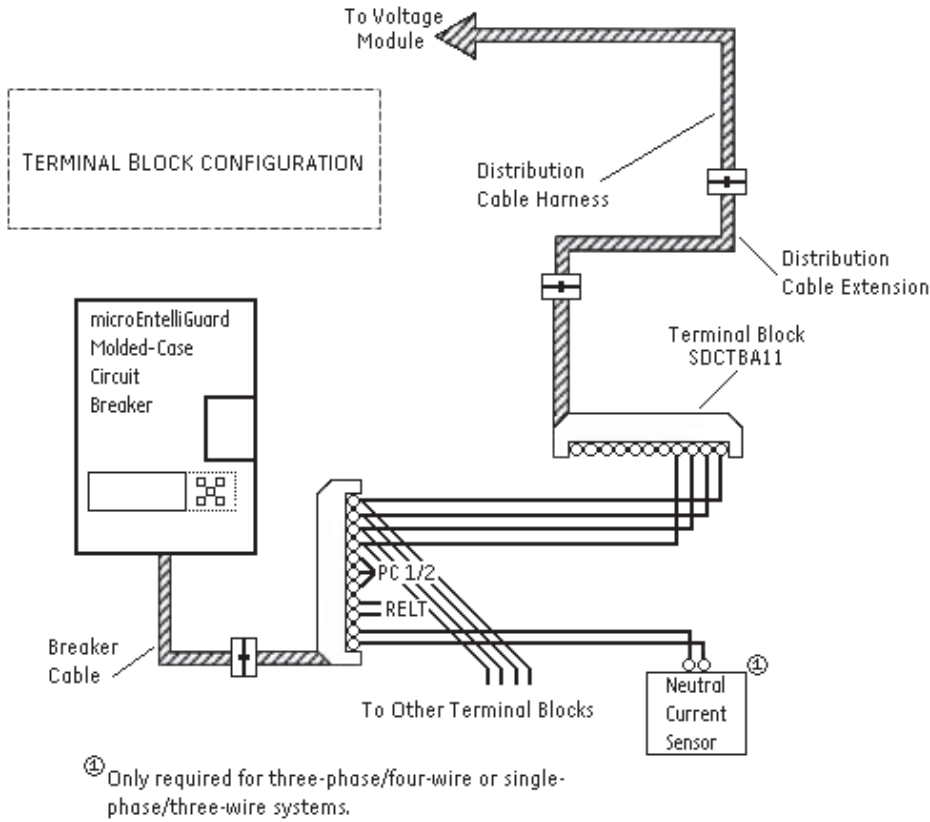


Figure 1. Typical *microEntelliGuard*™ system utilizing the 11C Distribution Cable Terminal Block.

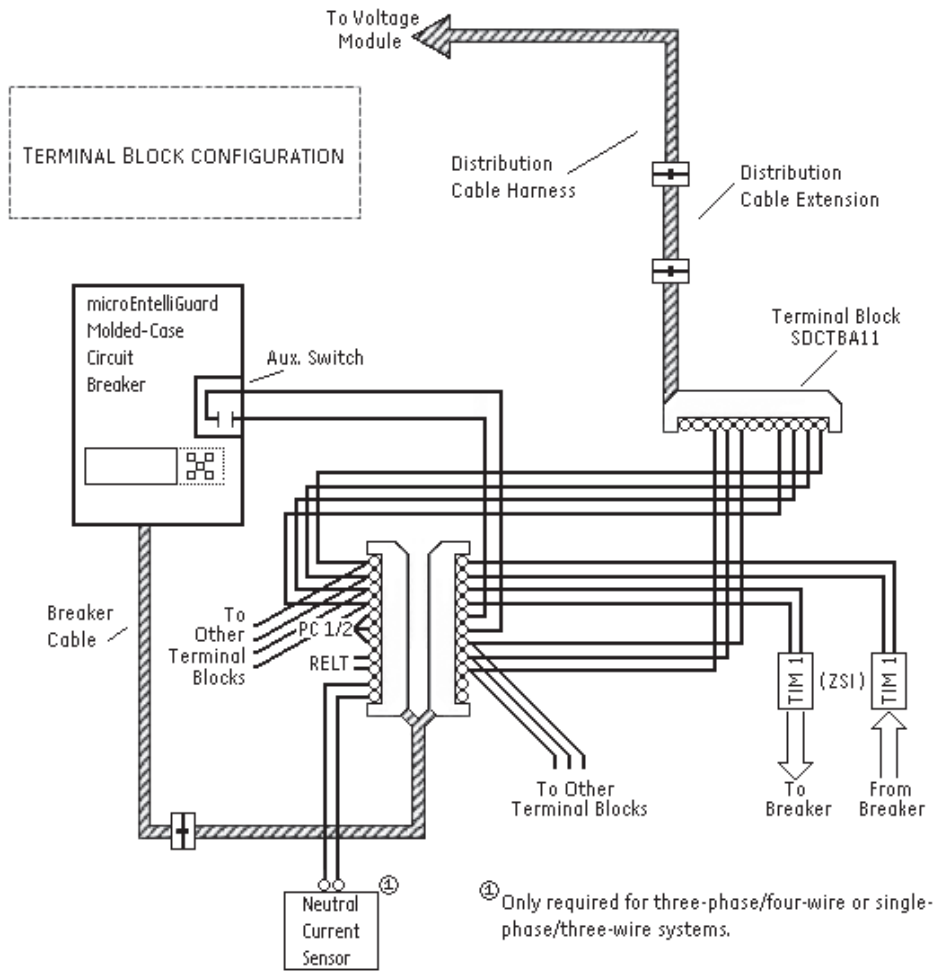


Figure 2. Typical microEntelliGuard™ system utilizing the 22C Distribution Cable Terminal Block.

Figure 3 shows the individual breaker input connector pinout for the Distribution Cable Terminal Blocks.

Input signals from SDCTBA11C to Spectra RMS Breakers with microEntelliGuard Trip Units			Input signals from SDCTBA22C to Spectra RMS Breakers with microEntelliGuard Trip Units			
NO CONNECTION	20	19	REL T-	Ⓞ VOLTAGE 3	20 19	REL T-
NO CONNECTION	18	17	REL T+	Ⓞ VOLTAGE 2	18 17	REL T+
NO CONNECTION	16	15	REL T/PC2 O-	Ⓞ VOLTAGE 1	16 15	REL T/PC2 O-
CT COM	14	13	REL T/PC2 O+	CT COM	14 13	REL T/PC2 O+
CT N	12	11	GFA/PC1 O-	CT N	12 11	GFA/PC1 O-
NO CONNECTION	10	9	GFA/PC1 O+	AUX SWITCH	10 9	GFA/PC1 O+
COMM -	8	7	NO CONNECTION	COMM -	8 7	ZSI O-
COMM +	6	5	NO CONNECTION	COMM +	6 5	ZSI O+
24 VDC -	4	3	NO CONNECTION	24 VDC -	4 3	ZSI I-
24 VDC +	2	1	NO CONNECTION	24 VDC +	2 1	ZSI I+

VOLTAGE REFERENCE	CONNECTION	
Ⓞ	Ⓞ to N	Ⓞ to Ⓞ
VOLTAGE 1	AⓄ to N	CⓄ - AⓄ
VOLTAGE 2	BⓄ to N	BⓄ - CⓄ
VOLTAGE 3	CⓄ to N	AⓄ - BⓄ

Ⓞ Voltage Signal depends on source & connection to the source

Figure 3. End view of Distribution Cable Terminal Block cable detailing available breaker pinout connections.

Dimensions and Wiring Diagrams

A Distribution Cable Terminal Block dimensioned drawing is provided in Figures 4 & 5, for the SDCTBA11C and SDCTBA22C respectively, to assist in mounting the accessory.

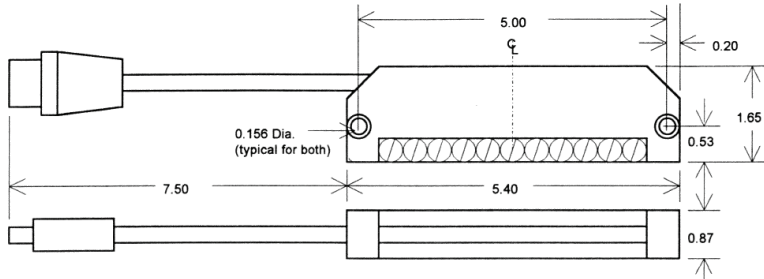


Figure 4. Dimensioned drawing of the Distribution Cable Terminal Block 11C (dimensions shown in inches).

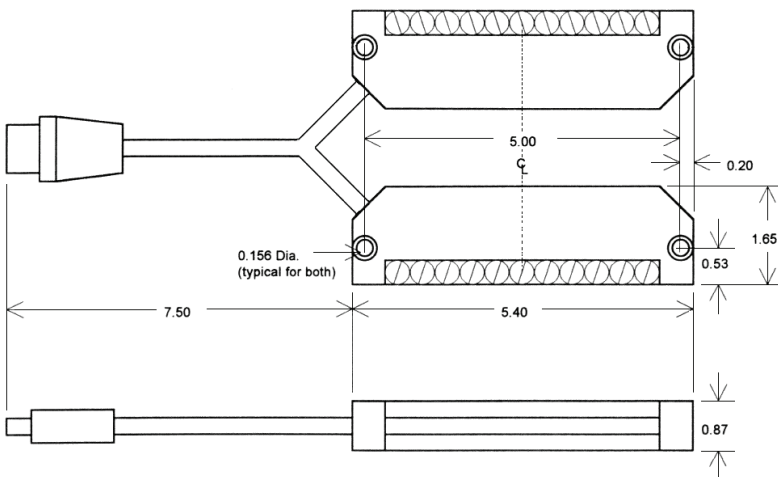


Figure 5. Dimensioned drawing of the Distribution Cable Terminal Block 22C (dimensions shown in inches).

Figure 6 shows a point-to-point wiring diagram for a Distribution Cable Terminal Block SDCTBA11C connected to a Spectra® RMS Molded-Case Circuit Breaker with a *microEntelliGuard™* Trip Unit. Figure 7 shows a point-to-point wiring diagram for a Distribution Cable Terminal Block SDCTBA22C connected to a Spectra® RMS Molded-Case Circuit Breaker with a *microEntelliGuard™* Trip Unit.

NOTE: Use Terminal Block SDCTBA11 (refer back to Figures 1 and 2) to connect the SDCTBA11C or SDCTBA22C to the Voltage Module if required.

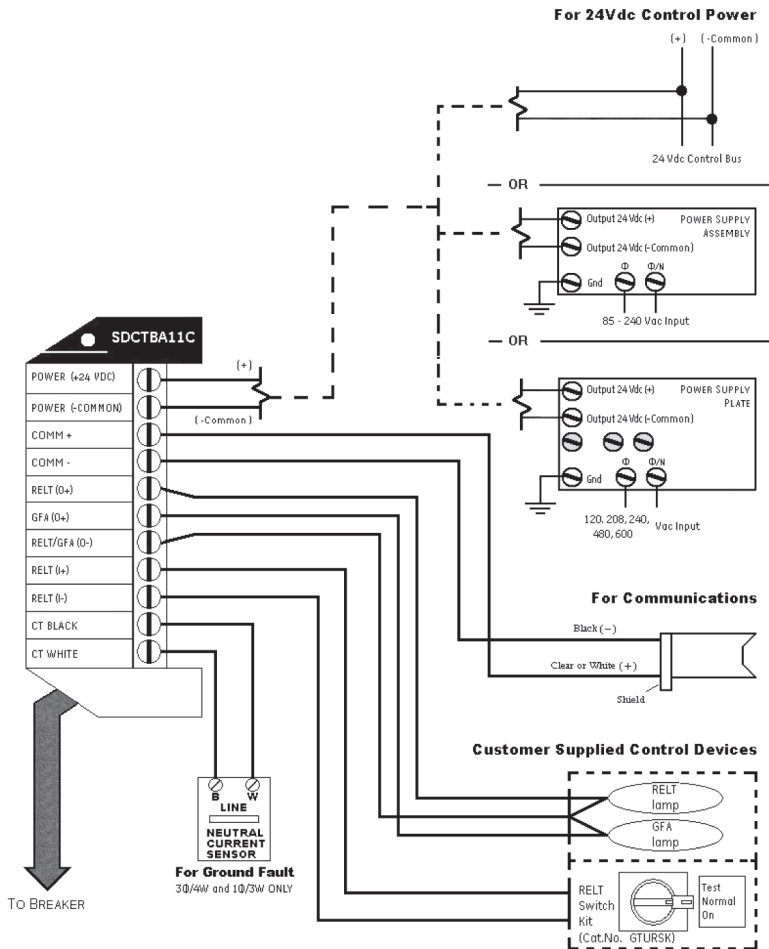


Figure 6. Wiring connections to the Distribution Cable Terminal Block 11C.

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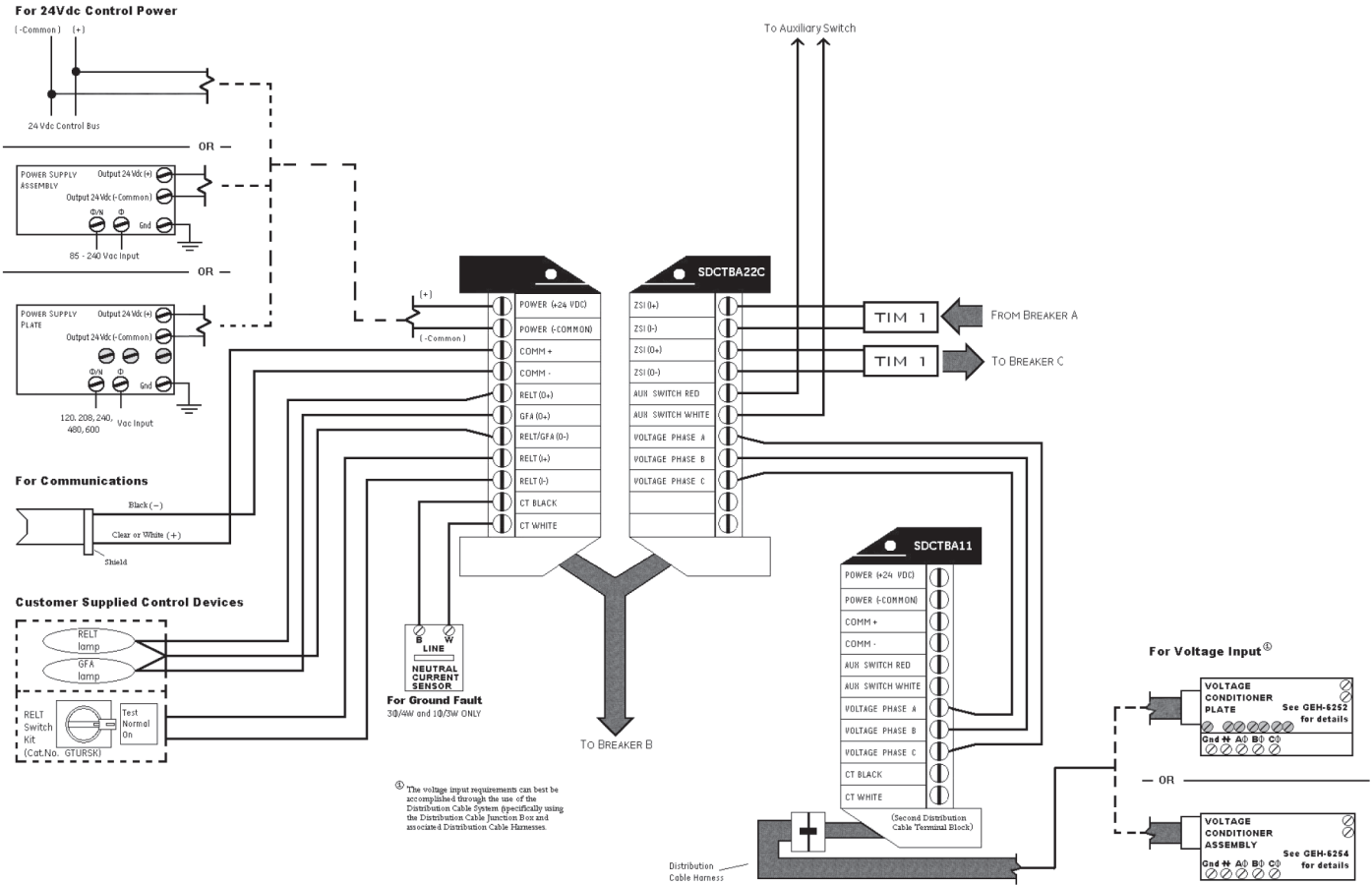


Figure 7. Wiring connections to the Distribution Cable Terminal Block 22C.

Connections

The screw terminals on the Distribution Cable Terminal Block are labeled by function for clarity. The terminal strip pocket will accommodate a spade lug or ring terminal with a tongue width up to 0.320 inches. The terminal screw size is 10-32. To make the connection, attach an appropriate spade lug or ring terminal to the wire, slip the fastener beneath the terminal screw and tighten.

The Distribution Cable Terminal Block contains a cable with a 20-pin plug connector. To connect the end of the Distribution Cable Terminal Block to a Spectra® RMS Molded-Case Circuit Breaker with a *microEntelliGuard™* Trip Unit, insert the breaker cable plug into the terminal block connector until the interlocks latch into the notch and hold the plug in place (See Figure 8).

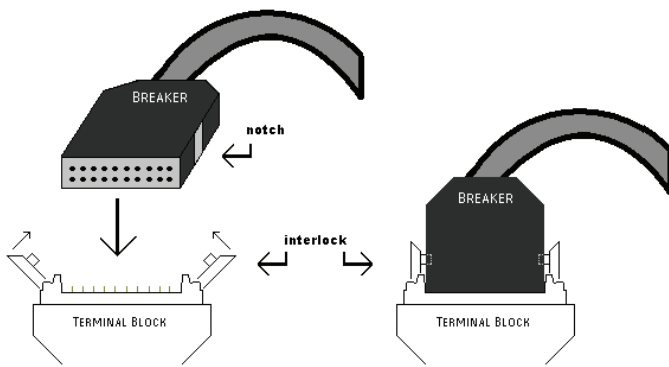


Figure 8. Side view of breaker cable-terminal block insertion and attachment.

Additional Information

Refer to these other user’s manuals for mpre details:

- GEH-5934 MicroVersaTrip® Plus and MicroVersaTrip® PM Trip Units in Spectra® RMS Molded-Case Circuit Breakers
- GEH-700 Spectra® G Breaker w/ *microEntelliGuard™* Trip Unit
- GEH-701 Spectra® K Breaker w/ *microEntelliGuard™* Trip Unit
- GEH-702 *microEntelliGuard™* Trip Unit Users Manual
- DEH-41318 Universal Rating Plug
- GEH-6250 Voltage Module
- GEH-6251 Power Supply Plate
- GEH-6252 Voltage Conditioner Plate
- GEH-6253 Power Supply Assembly
- GEH-6254 Voltage Conditioner Assembly
- GEH-703 MET Battery Pack Adapter
- GEH-704 MET Advanced Distribution Cable Junction Box
- DEH-006 Distribution Cable Junction Box
- GEH-705 MET Distribution Cable Extension (20-pin)
- GEH-6256 Distribution Cable Extension (12-pin)
- GEH-6255 Distribution Cable Harness (12-pin)
- GEH-6257 Distribution Cable Terminal Block (11 point)
- GEH-6491 POWER LEADER™ Modbus Concentrator
- GEH-6502 POWER LEADER™ PMCS 5.0 Network Architecture Guide
- GEH-707 MET Sealable Cover kits
- DEH-4568 GTU digital test kit (GTUTK20)
- GEH-5551 Shunt Trip and UVR instructions
- GEH-5593 Aux switch and bell alarm
- GEK-64467 TIM-1 Zone Selective Interlock Module

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These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to the GE Company.

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