



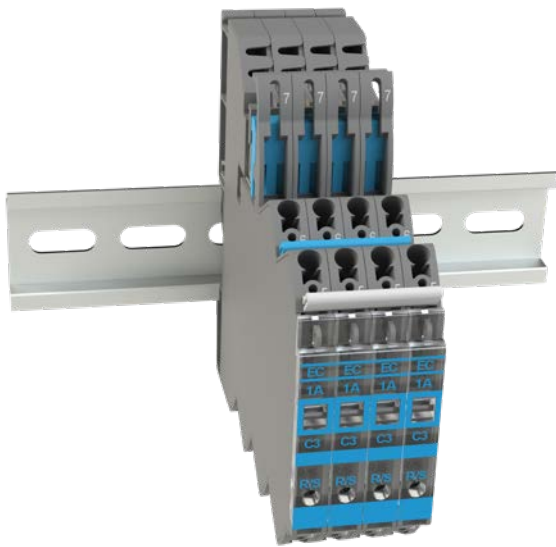
GECP Series Circuit Protectors

Electronic Circuit Protectors Overview

The Gladiator electronic circuit protectors (ECP's), provide reliable load monitoring and protection in 24VDC control circuits. The GECP-1CH-1-10A features include adjustable trip current range (1-10A), patented adjustable characteristics fast, medium, slow 1, slow 2, and slow 3. All ECP's output alarm signal at 90% of the load setting, remote set/reset. In addition to factory floor applications, the ECP's serve well in remote locations and other hard to access applications. Narrow construction ensures compact design even with multi-channel configurations. No derating required as Gladiator ECP's function independently of ambient temperature.

Features

- LED status indicator at 90% of the overload ratio
- Output trip alarm
- LED status indicator on/off/alarm
- Remote Set/Reset
- Ideal for remote locations
- Independent of ambient temperature, no derating required
- 35mm DIN rail mounting
- 5-year warranty



GECP-1CH-1-10A

Single Channel Electronic Circuit Protectors Selection Chart

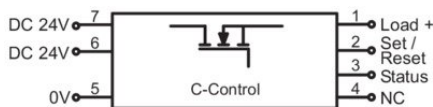
| Part Number | Price | Voltage Rating | Amperage Rating | Number Of Channels | Input Voltage | Output Voltage | Trip Curve | Connection | Mounting | Drawing Link |
|--------------------------------|---------|----------------|------------------|--------------------|---------------|----------------|--------------|------------------|---------------|---------------------|
| GECP-1CH-1-10A | \$44.00 | 12/24 VDC | 1-10A Adjustable | 1 | 10-30 VDC | 10-30 VDC | Selectable | Spring terminals | 35mm DIN rail | PDF |
| GECP-1CH-1A | \$29.50 | 12/24 VDC | 1A | 1 | 10-30 VDC | 10-30 VDC | Slow 1 curve | Spring terminals | 35mm DIN rail | PDF |
| GECP-1CH-2A | \$29.50 | 12/24 VDC | 2A | 1 | 10-30 VDC | 10-30 VDC | Slow 1 curve | Spring terminals | 35mm DIN rail | PDF |
| GECP-1CH-4A | \$29.50 | 12/24 VDC | 4A | 1 | 10-30 VDC | 10-30 VDC | Slow 1 curve | Spring terminals | 35mm DIN rail | PDF |
| GECP-1CH-6A | \$29.50 | 12/24 VDC | 6A | 1 | 10-30 VDC | 10-30 VDC | Slow 1 curve | Spring terminals | 35mm DIN rail | PDF |
| GECP-1CH-8A | \$29.50 | 12/24 VDC | 8A | 1 | 10-30 VDC | 10-30 VDC | Slow 1 curve | Spring terminals | 35mm DIN rail | PDF |

Max 40A per system when using with supply set [GECP-24V-SS](#).

GECP Series Circuit Protectors

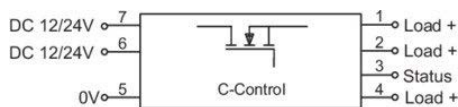
Wiring Diagrams

GECP-1CH-1-10A



- 1: + Output
- 2: Control input (Set/Reset)
- 3: Status output
- 4: NC
- 5: 0V
- 6: + Supply (alternative)
- 7: + Supply

GECP-1CH-1A, GECP-1CH-2A, GECP-1CH-4A, GECP-1CH-6A, GECP-1CH-8A



- 1: + Output
- 2: + Output
- 3: Status output
- 4: + Output
- 5: 0V
- 6: + Supply (alternative)
- 7: + Supply

| LED Operation | |
|---------------------------------------|--|
| Status LED | Explanation |
| LED Green, [ON] | Function is OK* |
| LED Green, Flashing 1Hz [Overload] | Load about 90% of 1 nominal |
| LED Green, Flashing 5Hz [Overload] | Load above 100% of 1 nominal |
| LED Red, [OFF] | Module switched off or acknowledged* |
| LED Red, Flashing 1Hz [Overload] | Output off due to overload/short circuit* |
| LED Red, Flashing 5Hz [Error] | Wiring error - feedback (internal error) |
| LED Red, Flashing Shortly [OFF] | Output off via remote set/reset |
| LED Red/Green, Flashing 1Hz [ON] | Target settings via rotary switch deviate from actual settings: NOTICE: Switching off and on via pushbutton required. |
| Button*** [ON/OFF] | Nominal operation: ON/OFF Load monitoring tripped: 1st push: acknowledge 2nd push: ON |
| Rotary Switch (I) - Switch Position** | GECP-1CH-1-10A - current adjustment 1-10A |
| Rotary Switch (C) - Switch Position** | Characteristic: 1: Fast, 2: Medium, 3: Slow-1, 4: Slow-2, 5: Slow-3 |

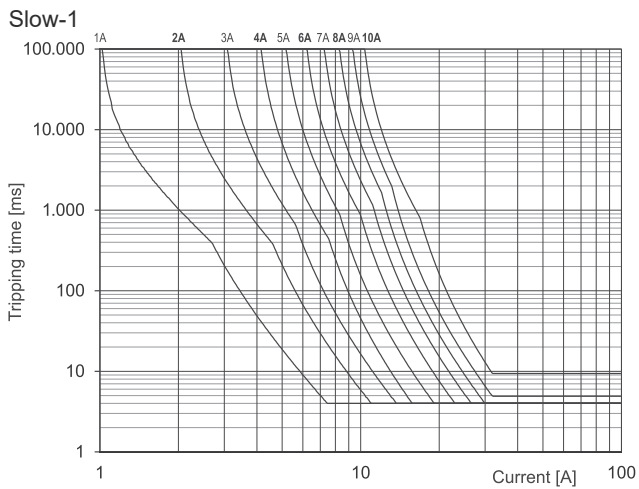
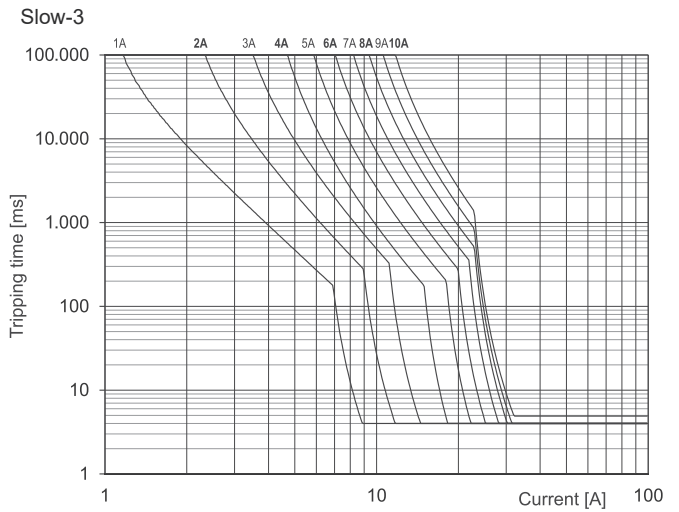
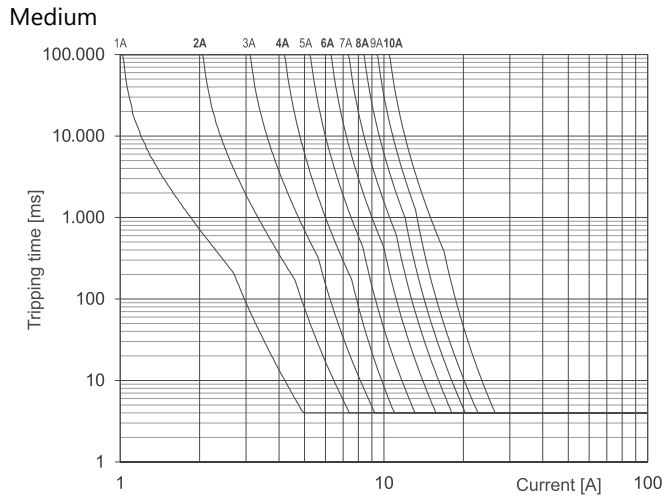
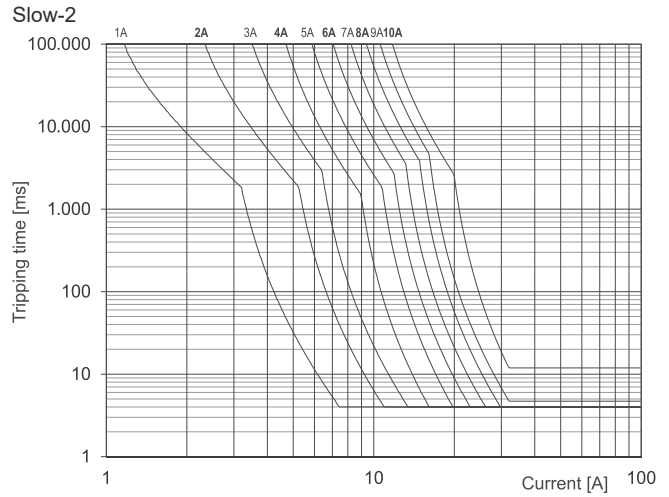
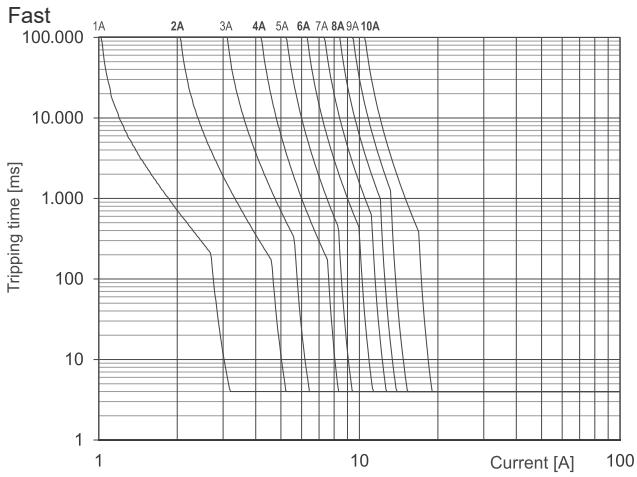
* If the operating voltage is switched off, the last status is saved. (Default)
 ** Accept the setting - after switching on again via the button, not by Remote Set/Reset.
 *** Master Function - switch off via pushbutton, can only be switched on again via pushbutton.



GECP Series Circuit Protectors

Characteristic Curves

NOTICE: Standard characteristics are shown here.



Technical Data

NOTICE: Always refer to the respective current data sheet.
This can be found on the product page of the product.

GECP Series Circuit Protectors

Supply Terminals

Overview

The GECP-24V-SS is used to supply 24V to the Electronic Circuit Protectors (ECP's) via 4- or 8-pin busbar, or by jumpering to the ECP's in the system.

The GECP-0V-TERM is used to bus together 0V signal to the ECP's in the system.

Features

- Single-channel design
- 40A maximum amperage rating
- 0VDC or 24VDC operating voltage
- 35mm DIN rail mounting



GECP-24V-SS



GECP-0V-TERM

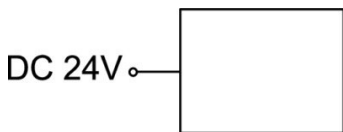


| Supply Terminals | | | | | |
|------------------------------|---------|-----------------|-------------------|---------------|---------------------|
| Part Number | Price | Amperage Rating | Operating Voltage | Mounting | Drawing Link |
| GECP-24V-SS | \$20.00 | 40A | 24VDC | 35mm DIN rail | PDF |
| GECP-0V-TERM | \$30.00 | 40A | 0VDC | | PDF |

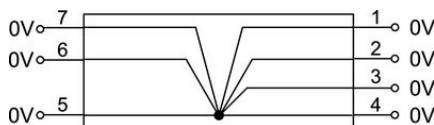
Note: End block included with [GECP-24V-SS](#).

Wiring Diagrams

GECP-24V-SS



GECP-0V-TERM



GECP Series Specifications

| GECP Series Specifications | | | | |
|----------------------------------|---|--|--|--|
| Part Number | GECP-1CH-1-10A | GECP-1CH-xA | GECP-0V-TERM | GECP-24V-SS |
| Input | | | | |
| Voltage Rating U_N | 12/24 VDC | | 12/24 VDC | 12/24/48 VDC |
| Operation Voltage Range | 10-30 VDC | | — | |
| Total Number of Channels | 1 | | — | |
| Rated Current I_N | DC 10A | | DC 10A 6 x max | DC 40A max |
| Supply Current | DC 40A over Cu-rails 10 x 3 mm | | — | |
| Reverse Voltage Protection | Internal electronics | | No | |
| Connection Type Input | Screwless contact slide | | — | Push-in 0.5 mm ² – 10mm ² UL Values/stranded 14-8 AWG |
| Conductor Cross Section | — | | Single-wire: max. 10mm ² Finely stranded: max 10mm ² Finely stranded with AEH: max 6mm ² | |
| Control Input (Set/Reset) | | | | |
| Signal Level | 12/24 VDC according to EN 61131 | | — | |
| OFF | Pulse with falling edge > 100ms, < 800ms | | — | |
| ON | Pulse with falling edge > 1s | | — | |
| Output | | | | |
| Voltage Rating U_n | — | | 12/24/48 VDC | |
| Switching Element | MOSFET | | — | |
| Output Current | DC 10A max | | DC 40A max | |
| Voltage Drop | 215 mV max (10A) | | — | |
| Status Display Output | LED green: operating voltage present - no error LED red: error in load circuit | | — | |
| Switch-on Capacity | 10,000 μ F | | — | |
| Current Range | 1 to 10A (Adjustable) | 1 to 8A (see selection chart) | — | |
| Characteristic | Fast (1), Medium (2), slow 1(3), slow 2 (4), slow 3 (5) | | — | |
| Connection Type Output | — | | Screwless Contact Slide | |
| Copper Bus Bar | — | | 3 x 10mm | |
| Signal Output | | | | |
| Signal Level | 12–24VDC: operating voltage on standby, no error 0VDC: error, output switched off or manual "OFF" | | — | |
| Switching Element | Transistor, collector with pull-up resistance | | — | |
| General | | | | |
| Housing Material | PA 6.6 (UL 94 V-0, NFF I2, F2) | | | |
| Housing Color | Gray | | | |
| Mounting | 35mm DIN rail mountable (EN 60715) | | | |
| Mounting Position | Any | | | |
| Degree Of Protection | IP20 | | | |
| Connection Type | Push-In 0.25 – 2.5 mm ² [24-14 AWG] | | Push-In single wire/fine wire 0.50 – 10.0 mm ² [22-7 AWG] Fine stranded wire with ferrule, Finely stranded, ferrule with plastic collar 0.5 – 6mm ² [22-9 AWG] UL Values 14-8 AWG | |
| Weight | 0.102 kg [0.22 lbs] | 0.105 kg [0.23 lbs] | 0.102 kg [0.22 lbs] | 0.07 kg [0.15 lbs] |
| Operating Temperature | -25 to 70°C [-13 to 158°F] | | -25 to 50°C [-13 to 122°F] | |
| Storage Temperature | -40 to 85°C [-40 to 185°F] | | | |
| Relative Air Humidity | 10 – 95% RH | | | |
| Vibration Resistance | 4g according to EN 60068-2-6 | | | |
| Shock resistance | 15g according to EN 60068-2-27 | | | |
| Certifications / Standards | CE, UKCA, UR (E530981), cULus (E191072), EN 61000-6-2, EN 61000-6-3, EN 61131-2 UL 60947-5-1 | UR (E530981), cULus (E191072), EN60950-1, EN61131-1,2 EN61000, EN60947-4-1 EN55022 | CE,UKCA, UR (E530981), cULus (E191072), EN 60947-1 | CE, UKCA, UR (E530981), cULus (E191072) UL 60947-5-1 |

GECP Series Circuit Protectors

Busbar Features

- For busing power between 4 or 8 ECPs
- Copper with tin-plated surface
- 40A amperage rating
- 4- or 8-pin units available
- Must be used with 24V supply set part number [GECP-24V-SS](#)



GECP-BB-4

| Busbars | | | | | | | | |
|---------------------------|--------|-----------------|----------------|----------------------------------|---|-----------------------------------|------------------------|---------------------|
| Part Number | Price | Amperage Rating | Number Of Pins | Material | Dimensions LxHxD mm [inch] | Operating And Storage Temperature | Weight | Drawing Link |
| GECP-BB-4 | \$4.00 | 40A | 4 | CU, Copper tin-plated surface | 50.4 x 10.0 x 3.0 [1.98 x 0.39 x 0.11] | -40 to 80°C [-40 to 176°F] | 0.013 kg [0.02 lbs] | PDF |
| GECP-BB-8 | \$5.00 | 40A | 8 | | 82.8 x 10.0 x 3.0 [3.25 x 0.39 x 0.11] | | 0.022 kg [0.04 lbs] | PDF |

Note: Cut to length permitted.

Jumper Comb Features

- For jumpering status outputs, 0V input, or for the set / reset terminals
- 6A amperage rating
- Push-in terminals
- 8-pole
- PVC material with FeZn contacts
- Blue - normally used for 24V
- Red - normally used for signal
- White - normally used for 0V



GECP-JC-8B



GECP-JC-8R



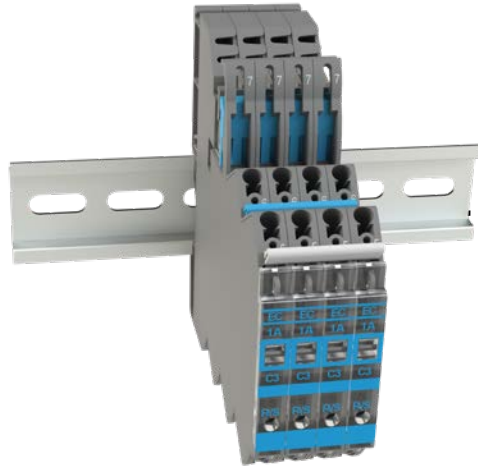
GECP-JC-8W

| Insulated Jumper Combs | | | | | | | | | | | |
|----------------------------|--------|----------|-----------------|---------|-----------------|----------|-------------------------------|-------------------------------|--------------------------|---------------------|---------------------|
| Part Number | Price | Quantity | Amperage Rating | Type | Number Of Poles | Material | Operating Temperature | Storage Temperature | Weight | Color | Drawing Link |
| GECP-JC-8B | \$5.00 | 1 | 6A | Push-in | 8 | PVC | -25 to 50°C [-13 to 122°F] | -40 to 85°C [-40 to 185°F] | 0.003 kg [0.0006 lbs] | Blue | PDF |
| GECP-JC-8R | \$5.00 | 1 | 6A | Push-in | 8 | | | | | Red | PDF |
| GECP-JC-8W | \$5.00 | 1 | 6A | Push-in | 8 | | -40 to 85°C [-40 to 185°F] | White | | PDF | |

Note: Cut to length permitted.

GECP Series Circuit Protectors

Standalone System



1-Channel Protection Modules
Fixed - 1, 2, 4, 6 and 8A
Adjustable: 1-10A

Protection modules are standalone or can be integrated into a modular system using supply and ground modules

-See below

Modular System

Optional 24VDC Supply Set
GECP-24-SS

Optional busbars provide supply power to 4 or 8 protection modules

Switches allow quick toggling of power on and off the bus bar

Optional Ground Supply Module
GECP-OV-TERM

Easy-to-wire push-in terminals with release buttons

1-Channel Protection Modules
Fixed - 1, 2, 4, 6 and 8A
Adjustable: 1-10A
(Protection modules integrated into a modular system using supply and ground modules)

Remote reset and remote ON/OFF functions

Insulated Jumper Combs
Available in Red, White, or Blue

