



A COMPANY OF STPI GROUP

E205 & ES205

Military Specified

Meets MIL-PRF-83536

General Characteristics

Number of Poles:

Dimensions:

Weight:

-Mounting Code 18:

2 Form C (2PDT)

0.810" x 0.410" x 0.640"

(20.6mm x 10.4mm x 16.3mm)

0.034 lb. (15.4 grams)

0.045 lb. (20.4 grams)

Switching Characteristics

Operate Time @ 25°C:

Release Time @ 25°C:

Bounce Time:

Mechanical Life:

5 ms Max.

5 ms Max.

1 ms Max.

400,000 Cycles

Environmental Characteristics

Temperature Range:

Vibration (Sinusoidal):

-Mounting Code 04:

Shock (any axis):

Seal:

-70°C to +125°C

30g 70-3,000 Hz

.06" Double Amplitude 10-55 Hz,

10g 55-500 Hz, 20g 500-3,000 Hz

200g, 6 ms

Hermetic (1×10^{-8} atm cm³/s)

Electrical Characteristics

Contact Voltage Drop (at rated resistive load)

-Initial:

-After Guaranteed Life:

-Max. Leakage Current (Mounting Code 18):

Dielectric Strength

Coil to Case @ Sea Level

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

All Other Points @ Sea Level

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

Coil to Case @ Sea Level (Mounting Code 18)

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

All Other Points @ Sea Level (Mounting Code 18)

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

Insulation Resistance

-Initial:

-After Life Tests:

Back EMF (Transient Voltage):

150 mV Max.

175 mV Max.

100 μ A RMS

1,000 Vrms

750 Vrms

1,000 Vrms

750 Vrms

1,050 Vrms

1,050 Vrms

1,050 Vrms

1,050 Vrms

100 M Ω Min, @ 500 Vdc

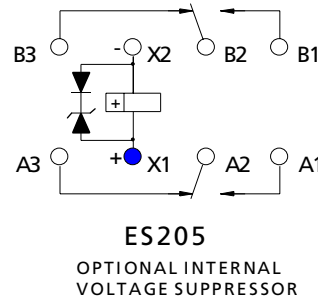
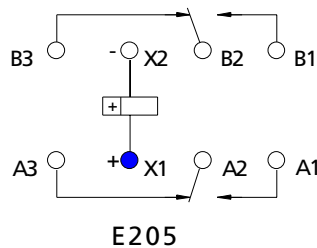
50 M Ω Min, @ 500 Vdc

42 Vdc Max. (ES205 Only)

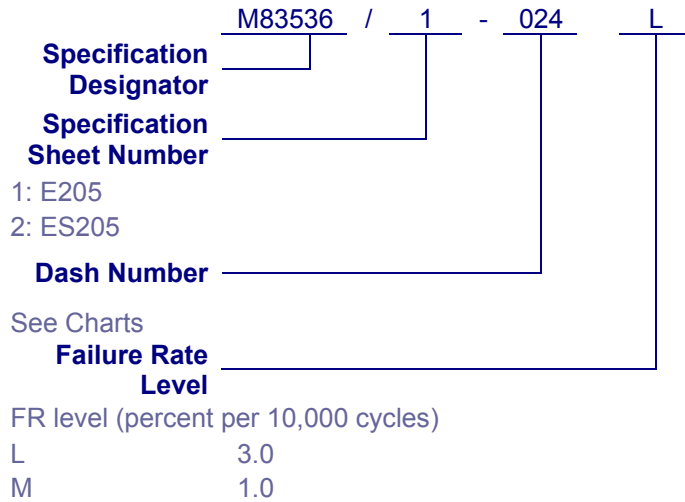
Contact Rating (Amps)

| Type of Load (High Level) | Cycles x 10 ³ | 28 Vdc | 115 Vac 400 Hz 1 Phase | 115/200 Vac 50/60 Hz 3 Phase |
|---------------------------|--------------------------|--------|------------------------------|------------------------------------|
| Resistive | 100 | 5 | 5 | 5 |
| Inductive | 20 | 3 | 5 | 5 |
| Motor | 100 | 2 | 3 | 3 |
| Lamp | 100 | 1 | N/A | N/A |

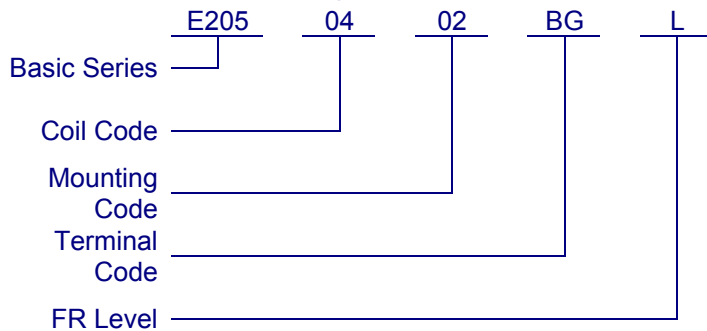
Circuit Diagram



Military Part Numbering



QPL Part Numbering





A COMPANY OF STPI GROUP

Dash Numbers – Specification Sheet Number 1: E205

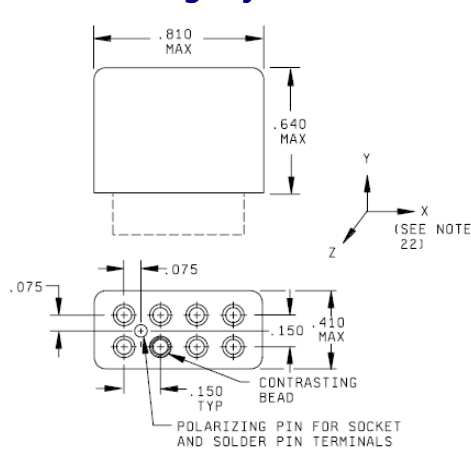
| Dash Number | Coil Code | Mount | Terminals | Coil Voltage | Max Pickup Voltage at 25°C | Max Pickup Voltage at 125°C | Max Hold Voltage at 125°C | Min Dropout Voltage at -70°C | Coil Resistance (Ω, +/- 10% at 25°C) |
|-------------|-----------|-------|-----------|--------------|----------------------------|-----------------------------|---------------------------|------------------------------|--------------------------------------|
| 010 | 02 | 01 | CT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 011 | 02 | 01 | AT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 012 | 02 | 01 | BG | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 013 | 02 | 02 | CT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 014 | 02 | 02 | AT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 015 | 02 | 02 | BG | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 016 | 02 | 03 | CT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 017 | 02 | 03 | AT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 018 | 02 | 03 | DT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 019 | 04 | 01 | CT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 020 | 04 | 01 | AT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 021 | 04 | 01 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 022 | 04 | 02 | CT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 023 | 04 | 02 | AT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 024 | 04 | 02 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 025 | 04 | 03 | CT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 026 | 04 | 03 | AT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 027 | 04 | 03 | DT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |

Dash Numbers – Specification Sheet Number 2: ES205

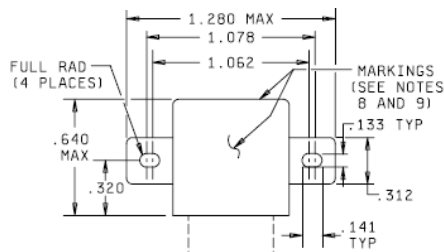
| Dash Number | Coil Code | Mount | Terminals | Coil Voltage | Max Pickup Voltage at 25°C | Max Pickup Voltage at 125°C | Max Hold Voltage at 125°C | Min Dropout Voltage at -70°C | Coil Resistance (Ω, +/- 10% at 25°C) |
|-------------|-----------|-------|-----------|--------------|----------------------------|-----------------------------|---------------------------|------------------------------|--------------------------------------|
| 010 | 02 | 01 | CT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 011 | 02 | 01 | AT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 012 | 02 | 01 | BG | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 013 | 02 | 02 | CT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 014 | 02 | 02 | AT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 015 | 02 | 02 | BG | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 016 | 02 | 03 | CT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 017 | 02 | 03 | AT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 018 | 02 | 03 | DT | 12 | 6.5 | 9 | 4.5 | 0.5 | 72 |
| 019 | 04 | 01 | CT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 020 | 04 | 01 | AT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 021 | 04 | 01 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 022 | 04 | 02 | CT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 023 | 04 | 02 | AT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 024 | 04 | 02 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 025 | 04 | 03 | CT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 026 | 04 | 03 | AT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 027 | 04 | 03 | DT | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 028 | 04 | 04 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 400 |
| 029 | 00 | 18 | KG | 28 | 13.5 | 18 | 7 | 1.5 | 500 |
| 039* | 28 | 02 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 500 |
| 040* | 28 | 03 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 500 |
| 041 | 04 | 05 | BG | 28 | 13.5 | 18 | 7 | 1.5 | 500 |

*These relays are supplied without internal Arc Barriers and are not rated for AC loads

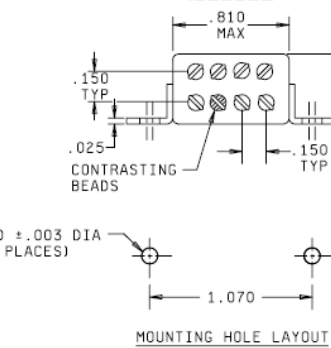
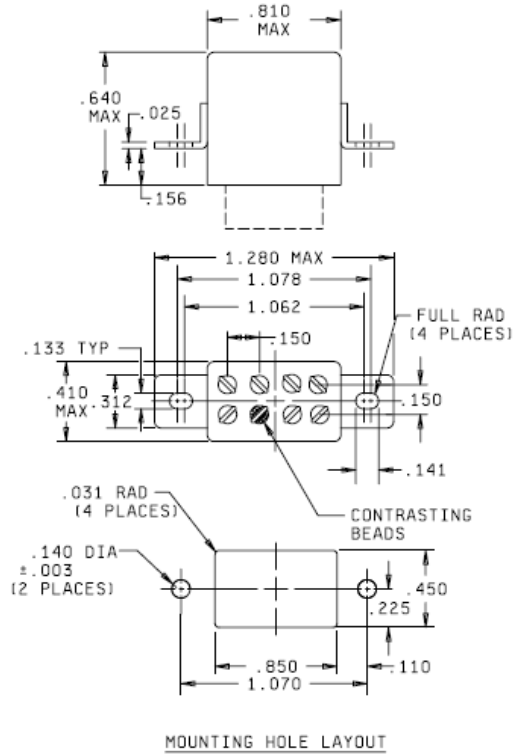
Mounting Styles



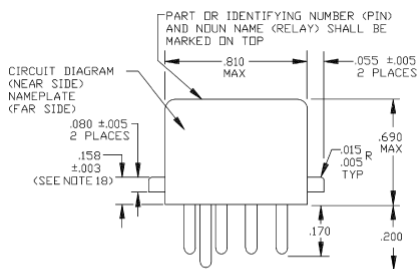
Mount 01:
No Mount



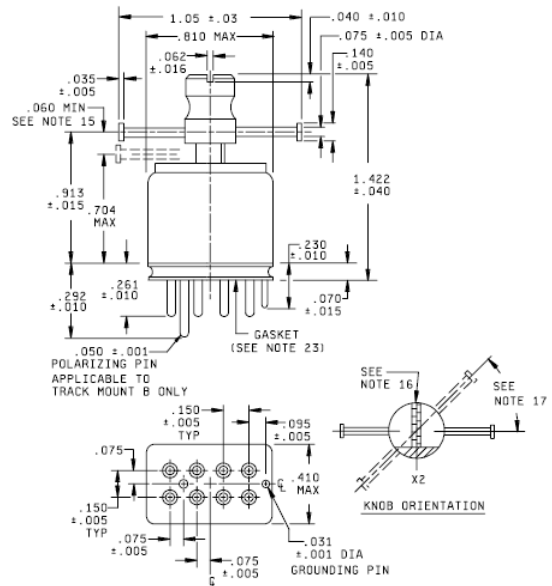
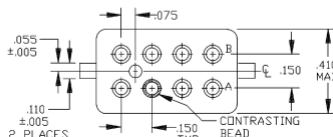
Mount 02:
Raised Vertical Flange Mount



Mount 03:
Horizontal Flange Mount

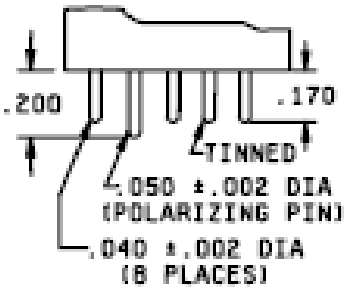


Mount 04 & 05:
Track Mount A

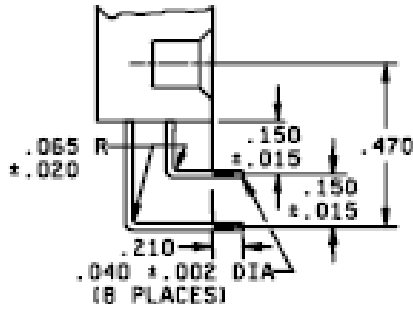


Mount 18:
Track Mount B

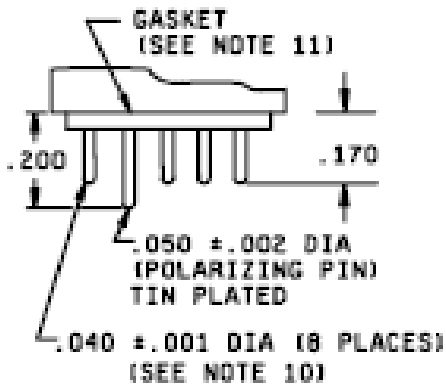
Terminal Styles



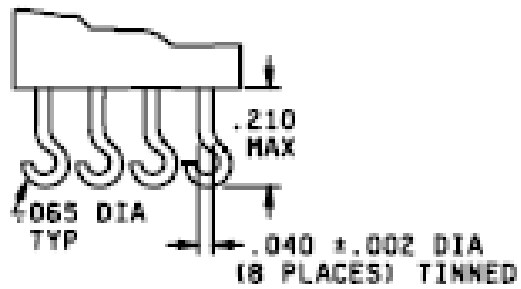
Terminal CT:
Tin Plated Solder Pin



Terminal DT:
Tin Plated 90° Solder Pin



Terminal BG & KG:
Gold Plated Plug in
Note: Grounding Pin not shown
for mount KG



Terminal AT:
Tin Plated Solder Hook