# POWER DIST. MODULE SEALED - 24 POSITION

GEP POWER PRODUCTS

IP67

58V

The FRH-A24 is a 24 position power distribution module providing a compact, durable and sealed power distribution solution for the transportation market. This module can be fitted with a mix of 280 style components such as Mini fuses, Mini Circuit Breakers, Mini Diodes, Diode Keys, Mini Resistors, ISO 280 Ultra Micro and ISO 280 Micro relays.



Assembled Unit

**Voltage Rating:** 58VDC **Rating:** 250A
**Terminal Capacity:** 24 terminals on a layout matrix of (4 x 6).
**Terminal Rating:** 30A continuous.
**Terminals:** Delphi Metri-Pack 280 Female Sealed TANGED.
**Temperature Rating:** -40°C to +125°C.
**Housing:** Black thermoplastic. **Seal:** Silicone, red.
**Mounting Bracket:** Stainless steel, straight with anti-rotation tab.
**Cable Seals:** Please check the overall diameter of your cable before ordering cable seals. Silicone material UL94-V0.
**Cavity Plugs:** Required to fill unused output cavities for ingress protection. Silicone material.
**Ingress Protection Rating:** IP67.
**Terminal Tools:** Terminal crimping & removal tools available.
**Module Accessories:** Optional 90 degree mounting bracket.
**Components:** Mini fuses, mini circuit breakers and ISO 280 relays are not included with the kit.
**Approvals:** RoHS REACH

| Part Number | Kit Contents |
|---|---|
| PDMKIT424 | Base, Seal, Cover, S.Steel Bracket, CPA, 2 x TPA's, 26 x Terminals (12129493), 26 x Seals (15324980), 6 x Cavity Plugs (12010300). |



PDMKIT424 - PDM & Terminal Kit

| Part Number | Description |
|---|---|
| FRH-A24 | PDM Housing Black and Seal Red. 24 Position. |
| FRH-A24-C | PDM Cover Black. |
| FRH-A-CPA | PDM CPA Blue Cover Position Assurance. |
| FRH-A12-MB-A1 | Flat Bracket Anti-Rotation Tabs Zinc Plated Steel. |
| FRH-A12-MB-A2 | Flat Bracket Anti-Rotation Tabs Stainless Steel. |
| FRH-A12-T | TPA Terminal Position Assurance, 2pcs Required |
| PDM-TK | Diode Key Red Nylon. Drops into PDM Base Slots |
| 12084201 | Tanged Terminal Female (#22-20AWG), 0.35 - 0.5mm² |
| 12077411 | Tanged Terminal Female (#18-16AWG), 0.80 - 1.0mm² |
| 12129493 | Tanged Terminal Female (#14-12AWG), 2.0 - 3.0mm² |
| 12077413 | Tanged Terminal Female (#10AWG), 5.0mm² |
| 15324983 | Cable Seal, 1.70 - 1.29mm Cable Diameter Dark Red |
| 15324982 | Cable Seal, 2.85 - 2.03mm Cable Diameter Green |
| 15324980 | Cable Seal, 3.49 - 2.81mm Cable Diameter Grey |
| 15324981 | Cable Seal, 4.30 - 3.45mm Cable Diameter Blue |
| 12010300 | Cavity Plug, 6.7mm Cavity inside Diameter Green |
| PDM-BB6 | Insulated Busbar 6 Position, 2.8mm Terminals NEW |



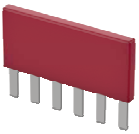
**TERMINALS: TANGED**
Female Sealed,
Tin Brass / Tin Plated



**CABLE SEALS: CAVITY PLUG:**
Silicone



**BUSBAR**
6 Position



**RELATED PRODUCTS:**



**Mini & LED Fuses, Circuit Breakers, Transorbs, Diodes, Shunts & Diode Key**



**ISO 280 Relays Ultra Micro, Micro & Mini. 12VDC & 24VDC.**



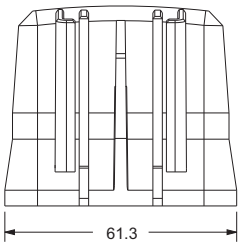
**Tanged Cables, Jumpers & Connectors.**

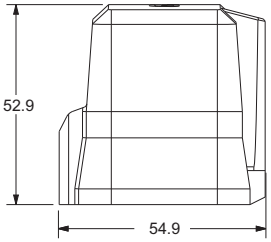


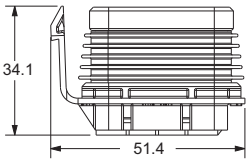
**Crimping & Removal Tools.**

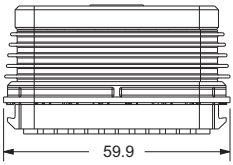


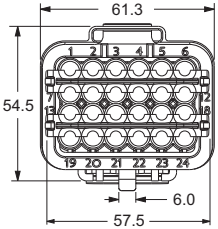
## Dimensions

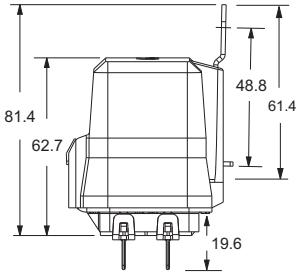


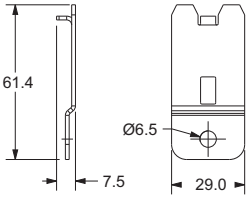



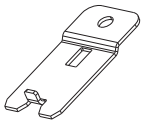



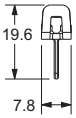



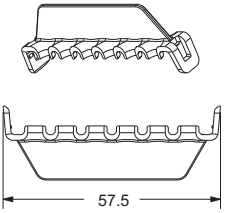






**Stainless Steel Mounting Bracket (with anti-rotation tab)**

Dimensions are in MM

**Secondary Locks (TPA's)**



**FRH-A24-C**



**FRH-A12-T**



**FRH-A24**



**Rear View of Block**



**FRH-A-CPA**



**FRH-A12-MB-A2**

## Component Layout Samples

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | | | | | | |
| B | | | | | | |
| C | | | | | | |
| D | | | | | | |

Empty Module (24 positions)

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Fuse | | | Fuse | | Fuse |
| B | Fuse | | | Fuse | | Fuse |
| C | Fuse | | | Fuse | | Fuse |
| D | Fuse | | | Fuse | | Fuse |

12 Mini Fuses / Circuit Breakers

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Ultra Micro Relay | | | Ultra Micro Relay | | Ultra Micro Relay |
| B | | | | | | |
| C | Ultra Micro Relay | | | Ultra Micro Relay | | Ultra Micro Relay |
| D | | | | | | |

6 Ultra Micro Relays

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Micro Relay | | | | Micro Relay | |
| B | | | | | | |
| C | Micro Relay | | | | Micro Relay | |
| D | | | | | | |

4 x Micro Relays

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Mini Relay | | | | Micro Relay | |
| B | | | | | | |
| C | | | | | Micro Relay | |
| D | | | | | | |

1 Mini Relay & 2 Micro Relays

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Mini Relay | | | | Ultra Micro Relay | |
| B | | | | | | |
| C | | | | | Ultra Micro Relay | |
| D | | | | | | |

1 Mini Relay & 2 Ultra Micro Relays

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Micro Relay | | | | Ultra Micro Relay | |
| B | | | | | | |
| C | Micro Relay | | | | Ultra Micro Relay | |
| D | | | | | | |

2 x Micro Relays &
2 Ultra Micro Relays

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Fuse | | | | Micro Relay | |
| B | Fuse | | | | | |
| C | Fuse | | | | Micro Relay | |
| D | Fuse | | | | | |

Sample Assortment 1

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Micro Relay | | | | Ultra Micro Relay | |
| B | | | | | | |
| C | Fuse | | Fuse | | Ultra Micro Relay | |
| D | Fuse | | Fuse | | | |

Sample Assortment 2

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Mini Relay | | | | Fuse | |
| B | | | | | Fuse | |
| C | | | | | Ultra Micro Relay | |
| D | | | | | | |

Sample Assortment 3

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| A | Micro Relay | | | | Micro Relay | |
| B | | | | | | |
| C | Fuse | | Ultra Micro Relay | | Fuse | |
| D | Fuse | | | | Fuse | |

Sample Assortment 4



**Component information:**

1. Fuses, Breakers, diodes etc. use 2 positions (1x2).
2. Ultra Micro Relays used 4 positions (2x2).
3. Micro Relays use 6 positions (3x2).
4. Mini Relays use 12+ positions (4x3).
5. Only 1 Mini Relay fits into this unit.
6. Ultra Micro relays do NOT fit beside a Mini Relay.
7. Flasher Relays do NOT fit into this unit.

☐ Empty position