

# POWER DISTRIBUTION UNIT (FLEC™)



**NEW IP67**

## Flexible Electrical Center (FLEC™)

The FLEC™ is a configurable power distribution module. It accommodates circuit protection components in a sealed IP67 rated housing with a compact footprint & high component density. Littelfuse offers both standard versions (loaded or unloaded) as well as custom designs. Contact sales for further information on custom made products. The module is designed for plug-in components such as fuses and relays. Power inputs and outputs are handled via 3 x M8 power input studs and 6 x Delphi GT series sealed connectors.

## CAN Flexible Electrical Center (FLEC™)

The CAN FLEC™ has all the same features of the standard FLEC, but it provides the ability to switch relays using the CAN bus system. It also includes relays that are not connected to the CAN bus and can be switched via traditional methods.

### Features of all FLEC units

- Tethered cover includes a fuse puller & storage for 4 spare fuses.
- Module is rated to 300A max load.
- Multiple power sources for fuses and relays.
- Vent plug located at the base of the unit.
- Sealed IP67 rated housing for protection from elements.

Part Number	Description
FLEC3000Z-0U	Unpopulated PDM 12VDC / 32VDC Up to 28 x Mini Fuses / Mini Breakers Up to 18 x Micro ISO 280 Relays 5 Pin
FLEC3000Z-0	Populated PDM 12VDC includes; 28 x Mini Fuses. (6ps x 15A & 22pcs x 30A) 18 x Micro ISO 280 12VDC Relays 5 Pin.
CFLEC001Z-01	Populated Can-Bus PDM 12VDC includes; 29 x Mini Fuses. (8ps x 20A & 21 pcs x 30A) 12 x Ultra Micro ISO 280 12VDC Relays 4 Pin. 3 x Micro ISO 280 12VDC Relays 5 Pin.

**Voltage:** See above for corresponding unit.

**Rating:** Max Load 300A. Max Fuse Rating 30A

**Power Input Studs:** 3 x 100A rated M8 studs. Plated copper and stainless steel. Red or black covers included.

**Power Output Terminals:** 38 x 1.5mm blades (15A) & 38 x 2.8mm blades (25A) suit Delphi GT 150 & 280 series sealed plug-in connectors.

**Internal PCB:** FR4 board with multi-layer high current 6oz copper. Conformal coating available.

**Materials:** UL94V0 thermoplastic.

**Cover:** Twist-on design with easy single-handed removal / installation. No latches to break and low over-head clearance requirements. Inside cover features slots for 4 x spare Mini fuses and includes a fuse puller.

**Base:** Includes vent for pressure equalization.

**Ingress Protection Rating:** IP67

**Cover Gasket:** Internal, high temperature silicone.

**Mounting:** Surface Mount.

**Custom Layout Component Options:** Mini fuses, JTF fuses, MJC fuses, Relays & PCB mount components. Can be designed to accept other components

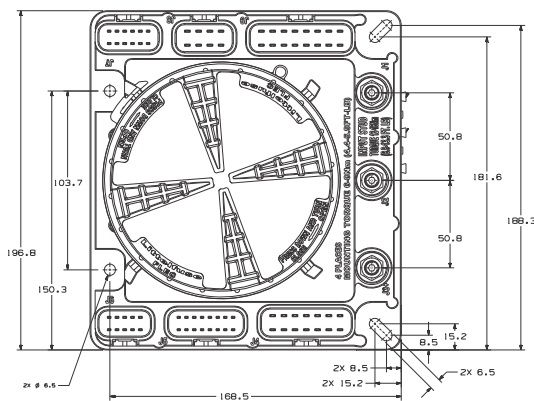
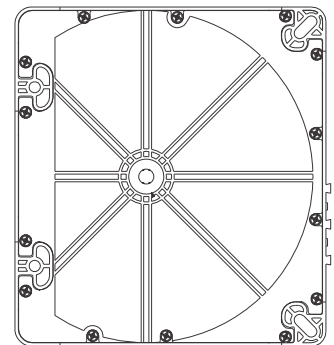
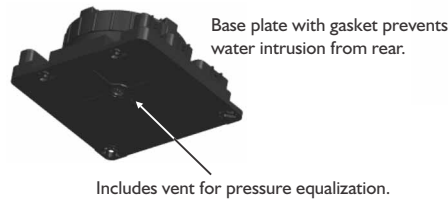
(development/tooling may be required). Internal PCB allows for custom circuit configurations, including designs requiring electronics such as those used in CAN J1939 and LIN systems

**Temperature Rating:** -40 °C to +85 °C.

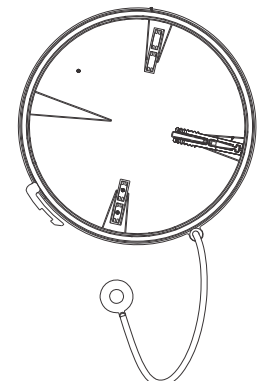
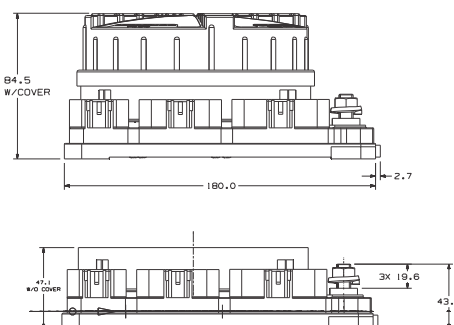
**Options:** Additional MegaFlex holders can be interlocked to dovetails on the base for high current protection. A Mega fuse can be installed across the M8 input studs to pre-fuse multiple circuits in the FLEC. Custom component label or inside cover label.

**Test Specifications:** SAE, USCAR & ISO.

Twist-on cover with internal silicone gasket & tether.



Dimensions in MM



Connectors, Terminals, Cable Seals and Cavity Plugs

**ACCESSORIES: DELPHI GT SERIES CONNECTORS**

Part Number	Connector	Poles	Terminals
I5326842	J6	10	DELPHI GT 150 (10pcs)
I5326849	J7	12	DELPHI GT 150 (12pcs)
I5326863	J5	16	DELPHI GT 150 (16pcs)
I5326654	J8	8	DELPHI GT 280 (8pcs)
I5326917	J4	14	DELPHI GT 280 (14pcs)
I5326666	J9	16	DELPHI GT 280 (16pcs)



**ACCESSORIES: DELPHI GT 150**

**TERMINALS: TANGED**

Female  
Tin Brass / Tin plated



**CABLE SEALS:**

Silicone



**CAVITY PLUG:**

Silicone



Part Number	Wire (AWG)	Wire (mm <sup>2</sup> )	Part Number	Cable Dia.(mm)	Colour	Cavity Plugs	Colour
I2191818	#22- #20	0.35 - 0.5mm <sup>2</sup>	I5366021	1.2 - 1.9 dia.	White	I5305171	Green
I2191819	#18 - #16	0.75 - 1.0mm <sup>2</sup>	I5366060	1.86 - 2.4 dia.	Blue		

Note: Delphi GT 150 terminals are rated 15A max.

**ACCESSORIES: DELPHI GT 280**

**TERMINALS: TANGED**

Female  
Tin Brass / Tin plated



**CABLE SEALS:**

Silicone



**CAVITY PLUG:**

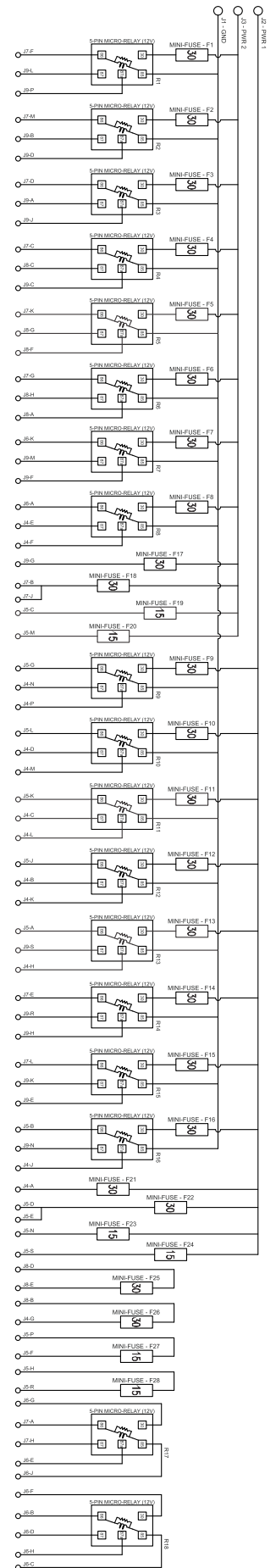
Silicone



Part Number	Wire (AWG)	Wire (mm <sup>2</sup> )	Part Number	Cable Dia.(mm)	Colour	Cavity Plugs	Colour
I5304718	#22- #20	0.35 - 0.5mm <sup>2</sup>	I5366065	1.2 - 1.85 dia.	Orange	I5305170	White
I5304719	#18 - #16	0.75 - 1.0mm <sup>2</sup>	I5366066	1.86 - 2.25 dia.	Yellow		
I5304720	#16 - #12	1.5 - 3.0mm <sup>2</sup>	I5366067	2.5 - 3.2 dia.	Tan		
			I536674	2.7 - 3.2 dia.	Blue		
			I2191235	3.4 - 3.9 dia.	Purple		

Note: Delphi GT 280 terminals are rated 25A max.

**FLEC3000Z-0, FLEC3000Z-0U Circuit Specifications**



All fuses are MINI style unless otherwise noted.

DELPHI GT 280 SERIES  
 SEALED CONNECTOR:  
 15326654  
 CPA: 15317832  
 CAVITY PLUG: 15305170

R14-87a	H	S	R13-87	H	S
F17	G	R	R14-87	G	R
R7-87a	F	P	R1-87a	F	P
R15-87a	E	N	R16-87	E	N
R2-87a	D	M	R7-87	D	M
R4-87a	C	L	R1-87	C	L
R2-87	B	K	R15-87	B	K
R3-87	A	J	R3-87a	A	J

**J9**

H	S
G	R
F	P
E	N
D	M
C	L
B	K
A	J

DELPHI GT 280 SERIES  
 SEALED CONNECTOR:  
 15326654  
 CPA: 15317832  
 CAVITY PLUG: 15305170

F25	D	H	R6-87	D	H
R4-87	C	G	R5-87	C	G
F26	B	F	R5-87a	B	F
R8-87a	A	E	F25	A	E

**J8**

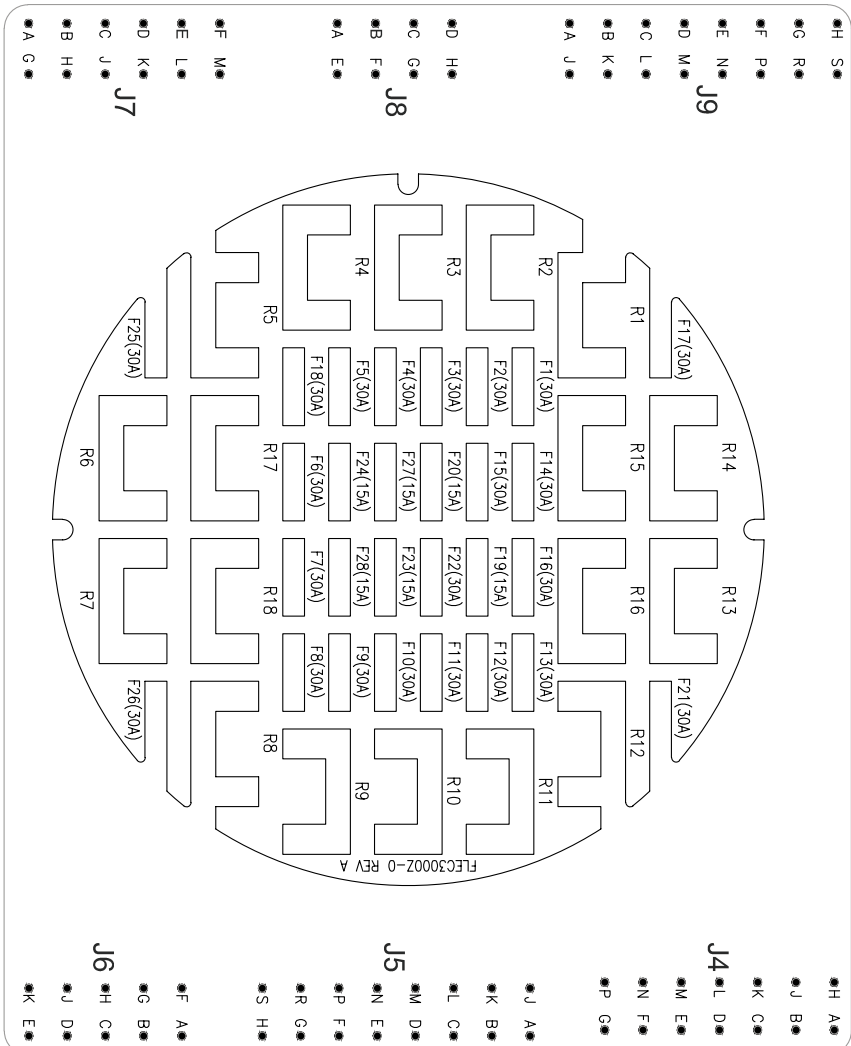
D	H
C	G
B	F
A	E

DELPHI GT 150 SERIES  
 SEALED CONNECTOR:  
 15326849  
 CPA: 15317832  
 CAVITY PLUG: 15305171

R1-86	F	M	R2-86	F	M
R14-86	E	L	R15-86	E	L
R3-86	D	K	R5-86	D	K
R4-86	C	J	F18	C	J
F18	B	H	R17-87	B	H
R17-86	A	G	R6-86	A	G

**J7**

F	M
E	L
D	K
C	J
B	H
A	G



R13-87a	H	A	F21	H	A
R16-87a	J	B	R12-87	J	B
R12-87a	K	C	R11-87	K	C
R11-87a	L	D	R10-87	L	D
R10-87a	M	E	R8-87	M	E
R9-87	N	F	R8-87a	N	F
R9-87a	P	G	F26	P	G

DELPHI GT 280 SERIES  
 SEALED CONNECTOR:  
 15326917  
 CPA: 15317832  
 CAVITY PLUG: 15305170

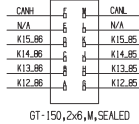
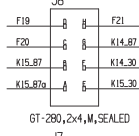
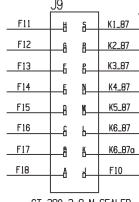
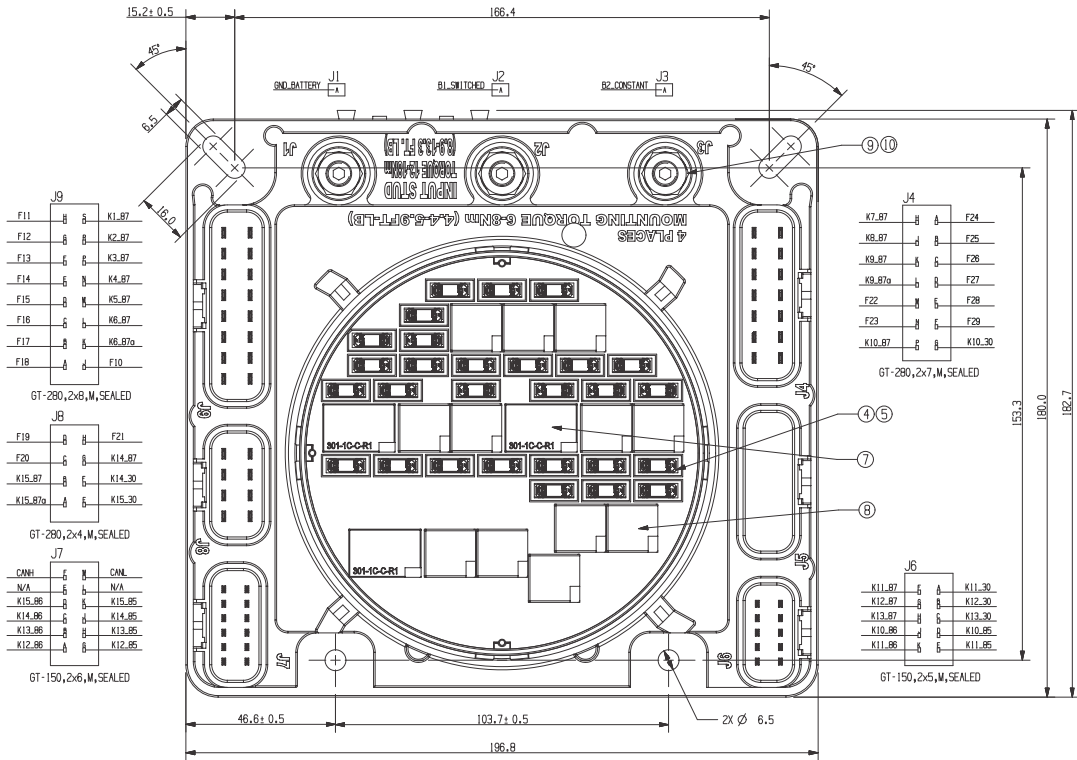
R12-86	J	A	R13-86	J	A
R11-86	K	B	R16-86	K	B
R10-86	L	C	F19	L	C
F20	M	D	F22	M	D
F23	N	E	F22	N	E
F27	P	F	F27	P	F
F28	R	G	R9-86	R	G
F24	S	H	F28	S	H

DELPHI GT 150 SERIES  
 SEALED CONNECTOR:  
 15326863  
 CPA: 15317832  
 CAVITY PLUG: 15305171

R18-30	F	A	R8-86	F	A
R17-30	G	B	R18-86	G	B
R18-87a	H	C	R18-85	H	C
R17-85	J	D	R18-87	J	D
R7-86	K	E	R17-87a	K	E

DELPHI GT 150 SERIES  
 SEALED CONNECTOR:  
 15326842  
 CPA: 15317832  
 CAVITY PLUG: 15305171

CFLE001Z-01 Circuit Specifications



FUSE	AMPS
F01	20
F02	20
F03	20
F04	20
F05	20
F06	30
F07	20
F08	20
F09	30
F10	30
F11	30
F12	30
F13	30
F14	30
F15	30
F16	30
F17	30
F18	30
F19	30
F20	30
F21	30
F22	30
F23	30
F24	30
F25	30
F26	30
F27	30
F28	30
F29	30

RELAY	TYPE
K01	303
K02	303
K03	303
K04	303
K05	303
K06	301
K07	303
K08	303
K09	301
K10	303
K11	303
K12	303
K13	303
K14	303
K15	301

NO	COMPONENT NO	DESCRIPTION	QTY/M	U/M
13	873-680	COVER TETHER	1	EA
12	923-025-004	M8 STUD CAP-BLACK	1	EA
11	923-025-003	M8 STUD CAP-RED	2	EA
10	900-062	WASHER	3	A
9	903-096	NUT	3	EA
8	020400902	4 PIN MINI-MIRCO RELAY	12	EA
7	020400902	5 PIN MICRO RELAY (12V)	3	EA
6	003297	COVER LABEL	1	EA
5	0297030.MXNV	30A MINI FUSE	25	EA
4	0297020.MXNV	20A MINI FUSE	10	EA
3	009700322	FUSE PULLER	1	EA
2	901-313	COVER GASKET	1	EA
1	873-710	COVER	1	EA

