

FLEC™ SERIES FLEXIBLE ELECTRICAL CENTER

Configurable Power Distribution Module



Description

The Flexible Electrical Center (FLEC™) is a configurable power distribution module for the commercial vehicle market. It accommodates circuit protection components in a compact, sealed footprint. Your custom electrical schematic can be programmed into the FLEC™ to create a simple “plug-and-play” system. The PCB accepts active and passive devices.

Each program is reviewed by Littelfuse for proper ratings, thermal loading, and application. The FLEC™ mates to an industry standard connection system to provide a robust solution for heavy duty environments.

Features and Benefits

- High component density in the FLEC maximizes available space and limits the number of additional units required.
- The versatile nature of the FLEC unit means it can accept a large number of component types. MINI, ATO, MAXI, JCASE, MCASE, and ISO components are all accepted.
- Rugged and sealed, the unit boasts an IP67 rating which allows it to be mounted in locations susceptible to moisture and dirt without any adverse effects
- Input stud caps prevent accidental short circuit while performing maintenance to and around the box
- Internal PCB allows for custom circuit configurations, including designs requiring electronics such as those used in CAN J1939 and LIN systems.
- Decreases assembly efforts at factory due to connectorized interfaces, instead of hard-wired technologies
- Reduced risk of wiring faults: The FLEC uses highly reliable printed circuit board technologies – each FLEC is 100% electrical tested

Ordering Information

MODEL	DESCRIPTION	MAX LOAD	MAX FUSE RATING	FUSE CAPACITY	RELAY CAPACITY	IP RATING	OUTPUT CONNECTORS	CAN/LIN AVAILABLE?
FLEC3000Z-0	Standard FLEC	300A	30A	28	18	IP67	Delphi GT	No
—	Customized FLEC	Designed to customer specifications. Contact your local Littelfuse Commercial Vehicle representative.						

Specifications Overview

Voltage Ratings:	12 or 24V DC
Max Load:	300A
Max Fuse Rating:	30A
Fuse Capacity:	28 MINI style
Relay Capacity:	18 ISO style
Operating Temp:	-40 to +85°C
Vibration Resistance:	ISO 16750-3 TEST II, 32 HOURS
Shock Resistance:	ISO 16750-3, SECTION 4.2.2
Ingress Protection:	IP67
Output Connectors:	Delphi GT Series
Input Studs:	M8
Dimensions:	180x197x75 mm
Accessories:	Input stud caps, cover tether, fuse puller

Applications

- Primary power distribution

Web Resources

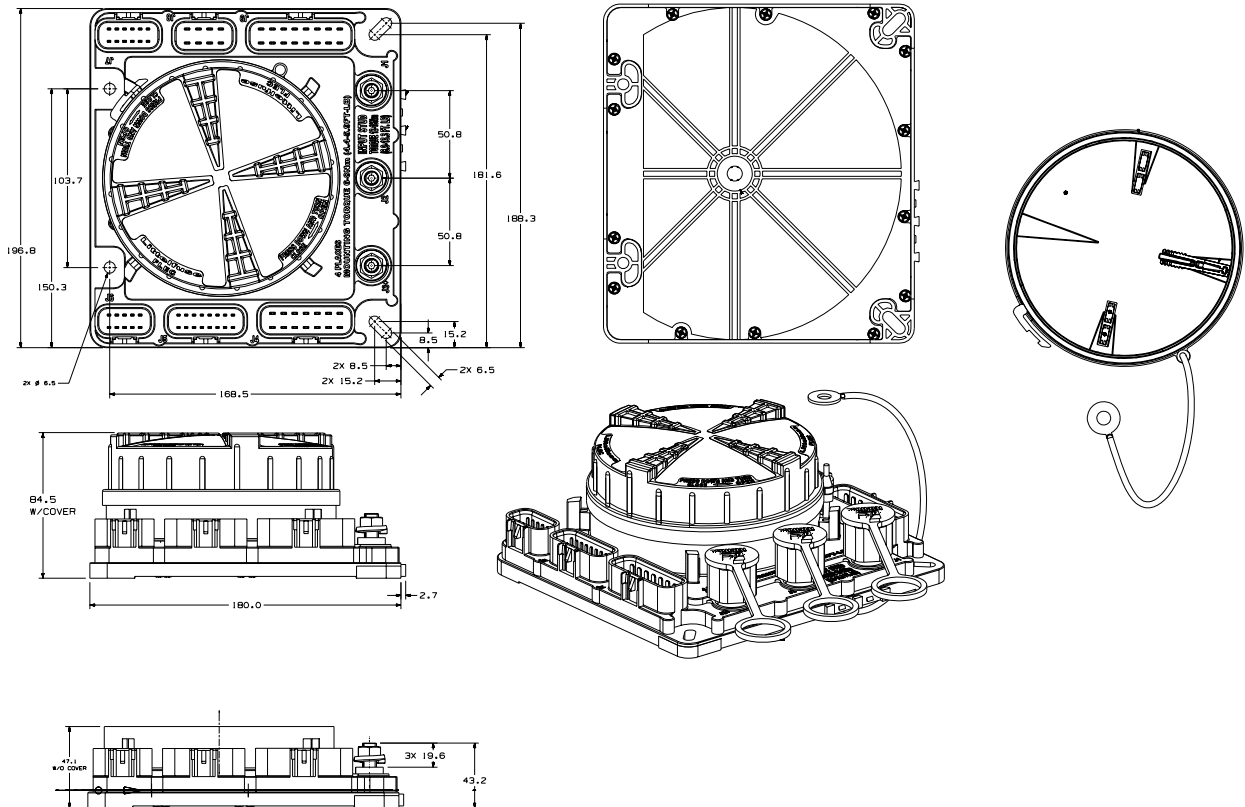
Download technical resources at:
littelfuse.com/flec

FLEC™ SERIES FLEXIBLE ELECTRICAL CENTER

Specifications

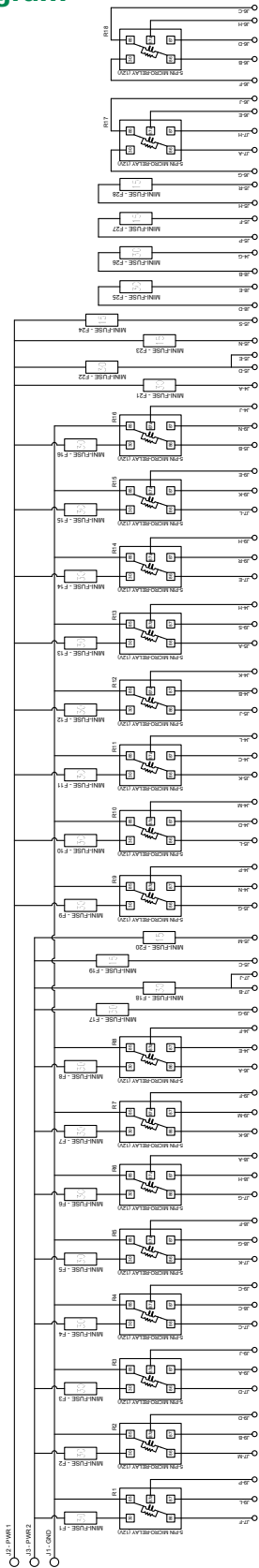
Voltage Ratings	12 or 24V DC
Max Fuse Rating	30A
Max Load	300A
Fuse Capacity	28 MINI style
Relay Capacity	18 ISO style
Terminal Styles	MINI®, PCB, JCASE®, MCASE™ Note: FLEC can be custom designed. Contact Littelfuse for details.
Temperature Range	-40 °C to +85 °C
Ingress Protection Rating	IP67
Vibration Resistance	ISO 16750-3 Test II, 32 hours
Shock Resistance	ISO 16750-3, Section 4.2.2
Dimensions	180x197x75 mm
Labels	Consult Littelfuse for label options
Input Studs	M8
Output Connectors	(1) 8-way sealed Delphi 280 series (1) 14-way sealed Delphi 280 series (1) 16-way sealed Delphi 280 series (1) 10-way sealed Delphi 150 series (1) 12-way sealed Delphi 150 series (1) 16-way sealed Delphi 150 series
Accessories	Input stud caps, cover tether, fuse puller

Dimensions in millimeters



Wiring Diagram

All fuses are MINI style unless otherwise noted.



GND **J1** M8 BLACK CAP
 PWR 1 **J2** M8 RED CAP
 PWR 2 **J3** M8 RED CAP

<p>DELPHI GT 280 SERIES SEALED CONNECTOR: 15326666 CPA: 15317832 CAVITY PLUG: 15305170</p>	<p>DELPHI GT 280 SERIES SEALED CONNECTOR: 15326666 CPA: 15317832 CAVITY PLUG: 15305170</p>	<p>DELPHI GT 150 SERIES SEALED CONNECTOR: 15326849 CPA: 15317832 CAVITY PLUG: 15305171</p>																																																																																
<p>J4</p> <table border="1"> <tr><td>##H A*</td><td>R13-87a</td><td>##H A*</td><td>F21</td></tr> <tr><td>##J B*</td><td>R16-87a</td><td>##J B*</td><td>R12-87</td></tr> <tr><td>##K C*</td><td>R12-87a</td><td>##K C*</td><td>R11-87</td></tr> <tr><td>##L D*</td><td>R11-87a</td><td>##L D*</td><td>R10-87</td></tr> <tr><td>##M E*</td><td>R10-87a</td><td>##M E*</td><td>R8-87</td></tr> <tr><td>##N F*</td><td>R9-87</td><td>##N F*</td><td>R8-87a</td></tr> <tr><td>##P G*</td><td>R9-87a</td><td>##P G*</td><td>F26</td></tr> </table>	##H A*	R13-87a	##H A*	F21	##J B*	R16-87a	##J B*	R12-87	##K C*	R12-87a	##K C*	R11-87	##L D*	R11-87a	##L D*	R10-87	##M E*	R10-87a	##M E*	R8-87	##N F*	R9-87	##N F*	R8-87a	##P G*	R9-87a	##P G*	F26	<p>J5</p> <table border="1"> <tr><td>##J A*</td><td>R12-86</td><td>##J A*</td><td>R13-86</td></tr> <tr><td>##K B*</td><td>R11-86</td><td>##K B*</td><td>R16-86</td></tr> <tr><td>##L C*</td><td>R10-86</td><td>##L C*</td><td>F19</td></tr> <tr><td>##M D*</td><td>F20</td><td>##M D*</td><td>F22</td></tr> <tr><td>##N E*</td><td>F23</td><td>##N E*</td><td>F22</td></tr> <tr><td>##P F*</td><td>F27</td><td>##P F*</td><td>F27</td></tr> <tr><td>##R G*</td><td>F28</td><td>##R G*</td><td>R9-86</td></tr> <tr><td>##S H*</td><td>F24</td><td>##S H*</td><td>F28</td></tr> </table>	##J A*	R12-86	##J A*	R13-86	##K B*	R11-86	##K B*	R16-86	##L C*	R10-86	##L C*	F19	##M D*	F20	##M D*	F22	##N E*	F23	##N E*	F22	##P F*	F27	##P F*	F27	##R G*	F28	##R G*	R9-86	##S H*	F24	##S H*	F28	<p>J6</p> <table border="1"> <tr><td>##F A*</td><td>R18-30</td><td>##F A*</td><td>R8-86</td></tr> <tr><td>##G B*</td><td>R17-30</td><td>##G B*</td><td>R18-86</td></tr> <tr><td>##H C*</td><td>R18-87a</td><td>##H C*</td><td>R18-85</td></tr> <tr><td>##J D*</td><td>R17-85</td><td>##J D*</td><td>R18-87</td></tr> <tr><td>##K E*</td><td>R7-86</td><td>##K E*</td><td>R17-87a</td></tr> </table>	##F A*	R18-30	##F A*	R8-86	##G B*	R17-30	##G B*	R18-86	##H C*	R18-87a	##H C*	R18-85	##J D*	R17-85	##J D*	R18-87	##K E*	R7-86	##K E*	R17-87a
##H A*	R13-87a	##H A*	F21																																																																															
##J B*	R16-87a	##J B*	R12-87																																																																															
##K C*	R12-87a	##K C*	R11-87																																																																															
##L D*	R11-87a	##L D*	R10-87																																																																															
##M E*	R10-87a	##M E*	R8-87																																																																															
##N F*	R9-87	##N F*	R8-87a																																																																															
##P G*	R9-87a	##P G*	F26																																																																															
##J A*	R12-86	##J A*	R13-86																																																																															
##K B*	R11-86	##K B*	R16-86																																																																															
##L C*	R10-86	##L C*	F19																																																																															
##M D*	F20	##M D*	F22																																																																															
##N E*	F23	##N E*	F22																																																																															
##P F*	F27	##P F*	F27																																																																															
##R G*	F28	##R G*	R9-86																																																																															
##S H*	F24	##S H*	F28																																																																															
##F A*	R18-30	##F A*	R8-86																																																																															
##G B*	R17-30	##G B*	R18-86																																																																															
##H C*	R18-87a	##H C*	R18-85																																																																															
##J D*	R17-85	##J D*	R18-87																																																																															
##K E*	R7-86	##K E*	R17-87a																																																																															
<p>J9</p> <table border="1"> <tr><td>##H S*</td><td>R14-87a</td><td>##H S*</td><td>R13-87</td></tr> <tr><td>##G R*</td><td>F17</td><td>##G R*</td><td>R14-87</td></tr> <tr><td>##F P*</td><td>R7-87a</td><td>##F P*</td><td>R1-87a</td></tr> <tr><td>##E N*</td><td>R15-87a</td><td>##E N*</td><td>R16-87</td></tr> <tr><td>##D M*</td><td>R2-87a</td><td>##D M*</td><td>R7-87</td></tr> <tr><td>##C L*</td><td>R4-87a</td><td>##C L*</td><td>R1-87</td></tr> <tr><td>##B K*</td><td>R2-87</td><td>##B K*</td><td>R15-87</td></tr> <tr><td>##A J*</td><td>R3-87</td><td>##A J*</td><td>R3-87a</td></tr> </table>	##H S*	R14-87a	##H S*	R13-87	##G R*	F17	##G R*	R14-87	##F P*	R7-87a	##F P*	R1-87a	##E N*	R15-87a	##E N*	R16-87	##D M*	R2-87a	##D M*	R7-87	##C L*	R4-87a	##C L*	R1-87	##B K*	R2-87	##B K*	R15-87	##A J*	R3-87	##A J*	R3-87a	<p>J8</p> <table border="1"> <tr><td>##D H*</td><td>R6-87</td><td>##D H*</td><td>R6-87</td></tr> <tr><td>##C G*</td><td>R4-87</td><td>##C G*</td><td>R5-87</td></tr> <tr><td>##B F*</td><td>F26</td><td>##B F*</td><td>R5-87a</td></tr> <tr><td>##A E*</td><td>R6-87a</td><td>##A E*</td><td>F25</td></tr> </table>	##D H*	R6-87	##D H*	R6-87	##C G*	R4-87	##C G*	R5-87	##B F*	F26	##B F*	R5-87a	##A E*	R6-87a	##A E*	F25	<p>J7</p> <table border="1"> <tr><td>##F M*</td><td>R1-86</td><td>##F M*</td><td>R2-86</td></tr> <tr><td>##E L*</td><td>R14-86</td><td>##E L*</td><td>R15-86</td></tr> <tr><td>##D K*</td><td>R3-86</td><td>##D K*</td><td>R5-86</td></tr> <tr><td>##C J*</td><td>R4-86</td><td>##C J*</td><td>F18</td></tr> <tr><td>##B H*</td><td>F18</td><td>##B H*</td><td>R17-87</td></tr> <tr><td>##A G*</td><td>R17-86</td><td>##A G*</td><td>R6-86</td></tr> </table>	##F M*	R1-86	##F M*	R2-86	##E L*	R14-86	##E L*	R15-86	##D K*	R3-86	##D K*	R5-86	##C J*	R4-86	##C J*	F18	##B H*	F18	##B H*	R17-87	##A G*	R17-86	##A G*	R6-86								
##H S*	R14-87a	##H S*	R13-87																																																																															
##G R*	F17	##G R*	R14-87																																																																															
##F P*	R7-87a	##F P*	R1-87a																																																																															
##E N*	R15-87a	##E N*	R16-87																																																																															
##D M*	R2-87a	##D M*	R7-87																																																																															
##C L*	R4-87a	##C L*	R1-87																																																																															
##B K*	R2-87	##B K*	R15-87																																																																															
##A J*	R3-87	##A J*	R3-87a																																																																															
##D H*	R6-87	##D H*	R6-87																																																																															
##C G*	R4-87	##C G*	R5-87																																																																															
##B F*	F26	##B F*	R5-87a																																																																															
##A E*	R6-87a	##A E*	F25																																																																															
##F M*	R1-86	##F M*	R2-86																																																																															
##E L*	R14-86	##E L*	R15-86																																																																															
##D K*	R3-86	##D K*	R5-86																																																																															
##C J*	R4-86	##C J*	F18																																																																															
##B H*	F18	##B H*	R17-87																																																																															
##A G*	R17-86	##A G*	R6-86																																																																															

