



ModICE Connector Enclosures

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Rugged Connector Enclosure System

Main Features

- Three Enclosure Sizes
 - Mini – ME 18, 30 and 48 I/O
 - Small – SE 18, 30 and 48 I/O
 - Large – LE 30, 48 and 60 I/O
- Interfaces with Cinch SHS Harness Connector
- Header modularity and blank headers offer design flexibility for alternate interconnects
- Simple Assembly
 - Mount Header to PCB
 - Process PCB
 - Slide Header/PCB assembly in the Enclosure and snap shut
- PCB – Board Size (approximately)
 - ME – 4.08 x 3.35" (103 x 85 mm)
 - SE – 4.50 x 4.60" (114 x 117 mm)
 - LE – 6.00 x 6.10" (152 x 155 mm)
 - Actual board dimensions are defined on the header prints. [Check header PDFs below.](#)



Optional Features

- Ferrite filter
 - Integrated ferrite blocks
 - Typical attenuation 3-7 dB (actual will depend on board design)
- Breather vent
 - Improved performance for thermal and altitude cycling
- Heat sink (SE and LE only)
 - One or two heat sink integrated in the enclosure
 - Up to 6 TO-220 MOSFET per heat sink
 - Must use spring plates to hold the MOSFETS

Material Specifications

- Housings – Glass filled polymer
- Pins – Brass – Post tin plated
- Seals – Silicone elastomer
- RoHS – Compliant

Electrical Specifications*

- Current 10 Amp @ 85oC
- Contact Resistance <10 m Ω
- Insulation Resistance >1000 M Ω @ 1000 VDC



Environmental **

- Operating Temperature -55oC to +85oC
- Sealing IP67, IP69K
- Current Cycling 500 Hr
- Salt Fog 96 Hr
- Thermal Shock 10 cycles
- Vibration 10 to 2000 Hz – 20 g peak level – XYZ – 24 Hr
- Shock 50 g – 20 pulses
- Temperature Humidity 1008 Hr
- Temperature Life 1000 Hr
- UV exposure 1000 Hr
- Resists to most fluids used in industrial applications

* Mated to SHS Harness Connector

** ME Enclosure

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ModICE™ Part Numbers and PDF Drawings

ModICE™ ME Mini Enclosure

| Part Number | Drawing | Size | Breather |
|---------------|---------------------|------|----------|
| 581 01 30 065 | PDF | ME | No |
| 581 01 30 075 | PDF | ME | Yes |

ModICE™ ME Mini Header

| Part Number | Drawing | Size | I/ | Filter |
|---------------|---------------------|------|----|--------|
| 581 01 18 039 | PDF | ME | 18 | Yes |
| 581 01 18 038 | PDF | ME | 18 | No |
| 581 01 30 072 | PDF | ME | 30 | Yes |
| 581 01 30 064 | PDF | ME | 30 | No |
| 581 01 48 010 | PDF | ME | 48 | Yes |



| | | | | |
|---------------|---------------------|----|-------|----|
| 581 01 48 009 | PDF | ME | 48 | No |
| 581 00 00 055 | PDF | ME | Blank | No |

ModICE™ SE Small Enclosure

| Part Number | Drawing | Size | Heat Sink | Breather |
|---------------|---------------------|------|-----------|----------|
| 581 01 30 043 | PDF | SE | - | No |
| 581 01 30 042 | PDF | SE | 1 | No |
| 581 01 30 041 | PDF | SE | 2 | No |
| 581 01 30 059 | PDF | SE | - | Yes |
| 581 01 30 058 | PDF | SE | 1 | Yes |
| 581 01 30 057 | PDF | SE | 2 | Yes |

ModICE™ SE Small Header

| Part Number | Drawing | Size | I/ | Filter |
|---------------|---------------------|------|------------|--------|
| 581 01 18 032 | PDF | SE | 18 | No |
| 581 01 18 033 | PDF | SE | 18 | Yes |
| 581 01 30 044 | PDF | SE | 30 | No |
| 581 01 30 046 | PDF | SE | 30 | Yes |
| 581 01 48 005 | PDF | SE | 48 | No |
| 581 01 48 007 | PDF | SE | 48 | Yes |
| 581 00 00 027 | PDF | SE | Blank Face | No |

ModICE™ LE Large Enclosure

| Part Number | Drawing | Size | Heat Sink | Breather |
|---------------|---------------------|------|-----------|----------|
| 581 01 60 033 | PDF | LE | - | No |
| 581 01 60 032 | PDF | LE | 1 | No |
| 581 01 60 031 | PDF | LE | 2 | No |
| 581 01 60 039 | PDF | LE | - | Yes |
| 581 01 60 038 | PDF | LE | 1 | Yes |
| 581 01 60 037 | PDF | LE | 2 | Yes |

ModICE™ LE Large Header

| Part Number | Drawing | Size | I/ | Filter |
|---------------|---------------------|------|------------|--------|
| 581 01 30 045 | PDF | LE | 30 | No |
| 581 01 30 051 | PDF | LE | 30 | Yes |
| 581 01 48 006 | PDF | LE | 48 | No |
| 581 01 48 008 | PDF | LE | 48 | Yes |
| 581 01 60 005 | PDF | LE | 60 | No |
| 581 01 60 006 | PDF | LE | 60 | Yes |
| 581 00 00 028 | PDF | LE | Blank Face | No |

Spring Plates For Heat Sink Option (SE and LE only)

| Part Number | Drawing | Description |
|---------------|---------------------|-----------------------------------|
| 581 00 00 020 | PDF | Use with 2 heat sink option |
| 581 00 00 021 | PDF | Use with 1 and 2 heat sink option |

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ModICE™ Tooling

| ModICE Tooling | |
|---------------------------------|---------------|
| Tool to assemble ModICE SE & LE | 599 11 11 650 |
| Tool to open ModICE SE | 599 11 11 611 |
| Tool to open ModICE LE | 599 11 11 612 |
| Tool to open ModICE ME | 599 11 11 440 |

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ModICE™ to SHS Mating Connector P/N Matrix

| ModICE | Size | I/ | SHS Harness Connector Mate 1 | SHS Harness Connector Mate 2 |
|--------|------|----|------------------------------|------------------------------|
|--------|------|----|------------------------------|------------------------------|

| | | | | |
|---------------|----|----|---------------|---------------|
| 581 01 18 032 | SE | 18 | 581 01 18 023 | N/A |
| 581 01 18 033 | SE | 18 | 581 01 18 023 | N/A |
| 581 01 18 038 | ME | 18 | 581 01 18 023 | N/A |
| 581 01 18 039 | ME | 18 | 581 01 18 023 | N/A |
| 581 01 30 044 | SE | 30 | 581 01 30 029 | N/A |
| 581 01 30 045 | LE | 30 | 581 01 30 029 | N/A |
| 581 01 30 046 | SE | 30 | 581 01 30 029 | N/A |
| 581 01 30 051 | LE | 30 | 581 01 30 029 | N/A |
| 581 01 30 064 | ME | 30 | 581 01 30 029 | N/A |
| 581 01 30 072 | ME | 30 | 581 01 30 029 | N/A |
| 581 01 48 005 | SE | 48 | 581 01 18 023 | 581 01 30 029 |
| 581 01 48 006 | LE | 48 | 581 01 18 023 | 581 01 30 029 |
| 581 01 48 007 | SE | 48 | 581 01 18 023 | 581 01 30 029 |
| 581 01 48 008 | LE | 48 | 581 01 18 023 | 581 01 30 029 |
| 581 01 48 009 | ME | 48 | 581 01 18 023 | 581 01 30 029 |
| 581 01 48 010 | ME | 48 | 581 01 18 023 | 581 01 30 029 |
| 581 01 60 005 | LE | 60 | 581 01 30 028 | 581 01 30 029 |
| 581 01 60 006 | LE | 60 | 581 01 30 028 | 581 01 30 029 |



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