

- NOTES:
- MATERIAL:
HOUSING: PA66 GF30, BLACK, UL 94 V-0
COVER: PC, COLOR SEE CHART 3 CONFIGURATION
SEAL: SILICON RUBBER, GREEN
TPA: PA66, BLUE, UL94 V-0
 - OPERATING TEMPERATURE RANGE: -40 °C TO +105 °C.
 - MATES WITH TE AMP MCP 2.8 FEMALE TERMINAL, FLR CABLE FOLLOW ISO 6722 CLASS C AND DIN 72511, DETAIL SEE CHART 1 FOR ALLOWED TYPES.
 - 2.8mm BLADES (RATED FOR 40A MAXIMUM), TOTAL MAXIMUM CONTINUOUS CURRENT IS 135A.
 - TPAs AND METAL BRACKET TO BE PACKED ALONG WITH THE HOLDER SEPARATELY IN BULK.
 - OPTIONAL TETHER (890009470) TO BE INSTALLED WITH THE PIN ON COVER AND THE PIN ON BASE.
 - MOUNTING BRACKET (868-964) CAN BE SOLD SEPARATELY, SEE CHART 3 CONFIGURATION.
 - STRAIGHT BRACKET (868-964) CAN BE REPLACED WITH OPTIONAL 30° ANGLE BRACKET (868-068) IF NEEDED.
 - MOUNTING TORQUE 5.5~6.5 Nm, M6 BOLT & LOCK WASHER.
 - IF RELAY(S) IS (ARE) APPLIED, FOAM(S) (901-327) MUST BE FIXED ON THE RELEVANT PLACE(S) IN COVER TO RETAIN THE RELAY(S). RELAY MUST BE INSERTED AT ASSIGNED LOCATION. REFER TO VIEW WITH RELAYS AND FOAMS ON PAGE 3.
 - INGRESS PROTECTION RATING: IP67.

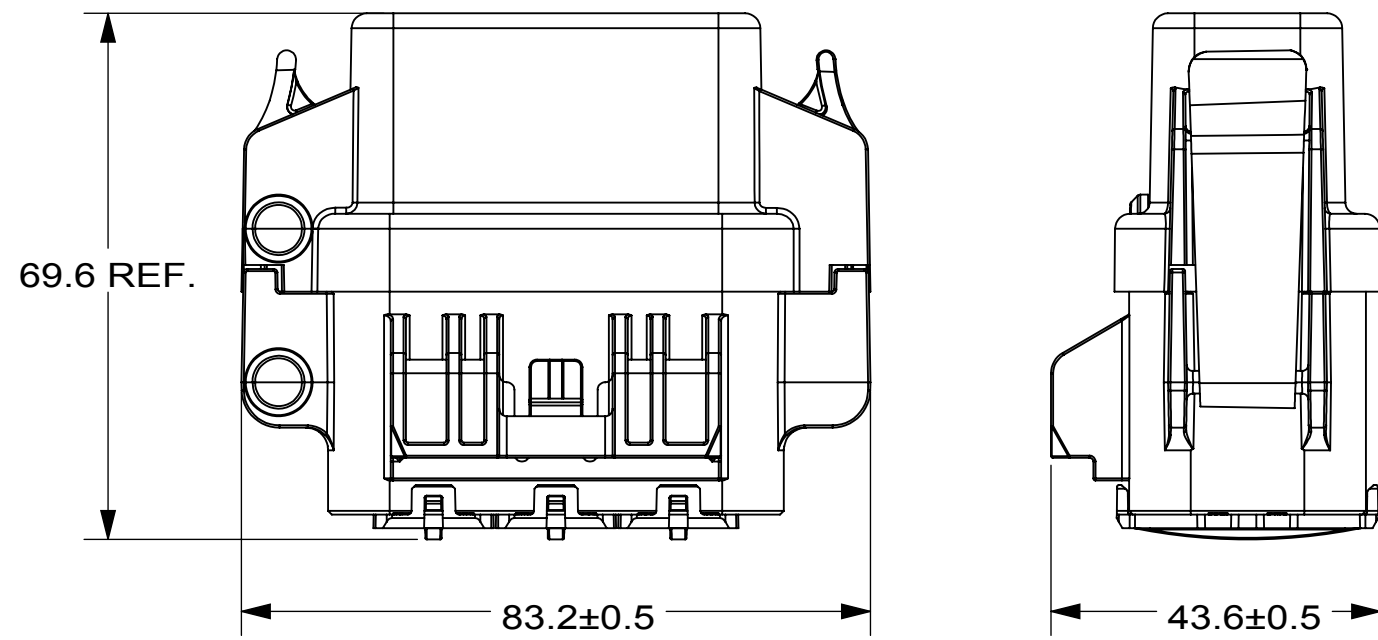
CHART 1: TE AMP MCP 2.8 CONTACT SYSTEM

| Wire Size range(mm2) | FLR Insulation Diameter(mm) | Terminal P/N | | Single Wire seal | Sealing Plug |
|----------------------|-----------------------------|--------------|-------------|------------------|--------------|
| | | Strip Form | Loose-piece | | |
| 0.36-0.5 | 1.2-1.4 | 968882 | 968896 | 828904-1 | 828922-1 |
| 0.5-1.0 | 1.4-2.1 | 968855 | 968875 | 828904-2 | |
| 1.0-2.5 | 2.2-3.0 | 968857 | 968876 | 828905-1 | |

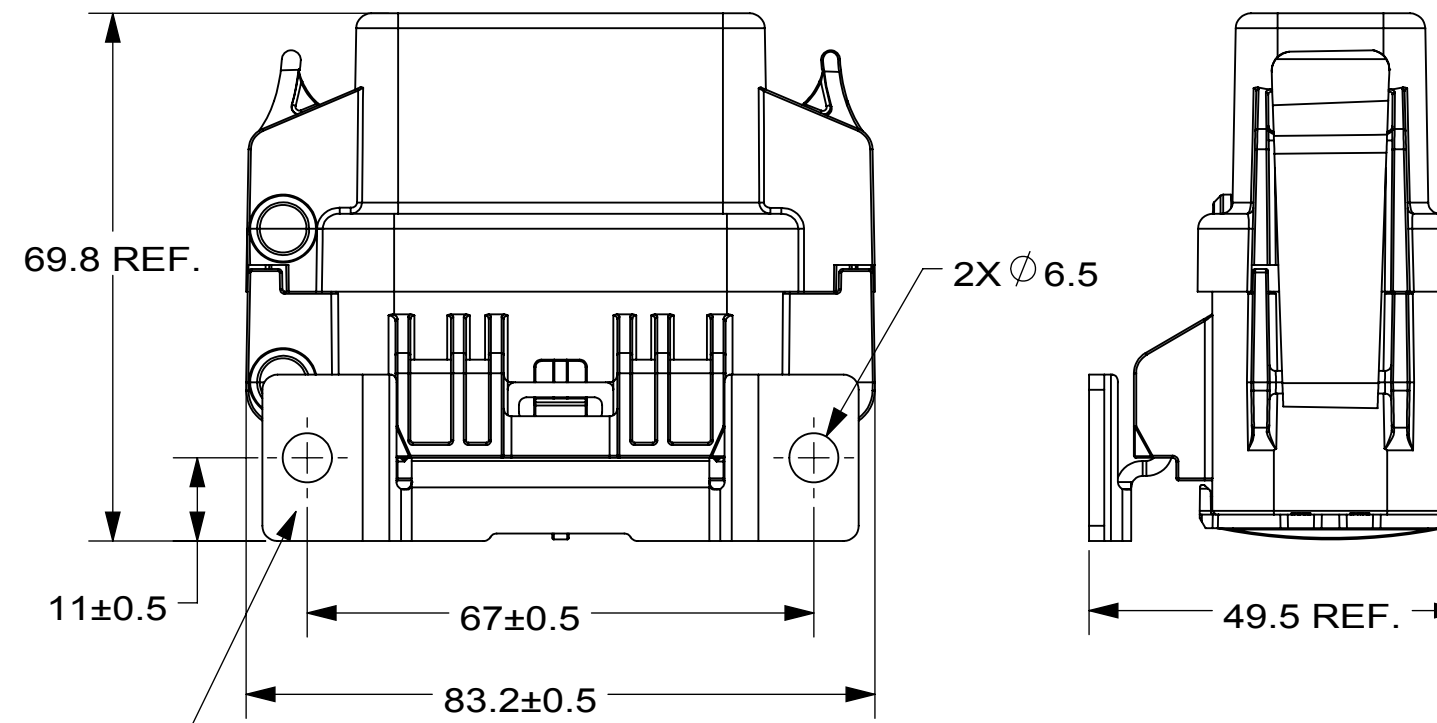
CHART 2: HWB12 ACCESSORY

| PART | TETHER | OPTIONAL | | NECESSARY IF RELAY APPLIED |
|--------|------------|-----------------------------------|-------------------|--|
| | | STRAIGHT BRACKET | 30° ANGLE BRACKET | FOAM |
| P/N | 890009470 | 868-964 | 868-068 | 901-327 |
| REMARK | SEE NOTE 6 | EITHER, SEE CHART 3 CONFIGURATION | | ONLY FOR RELAY, SEE NOTE 10 AND VIEW WITH RELAYS AND FOAMS ON PAGE 3 |

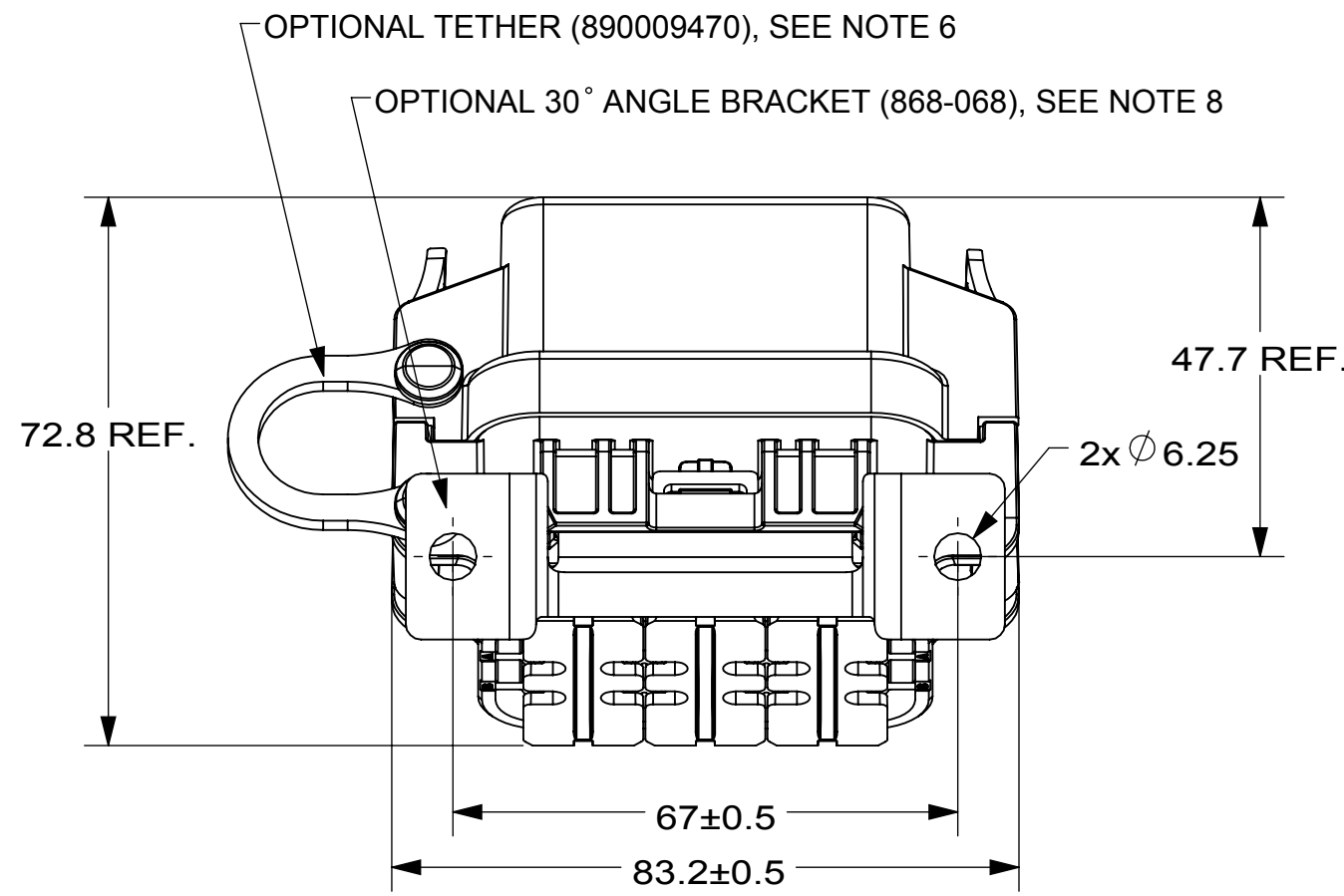
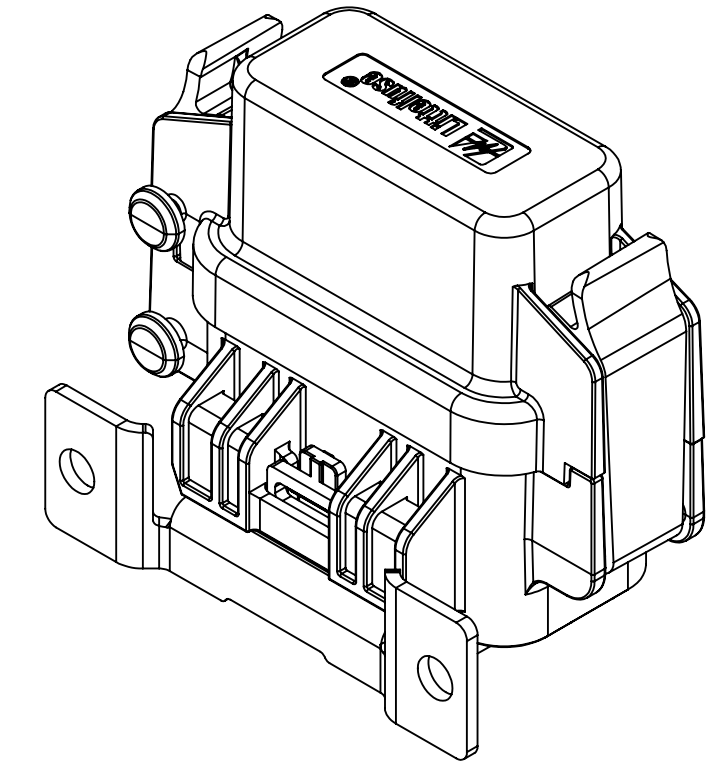
| REVISIONS | | | | |
|-----------|------|---|------------|----------|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
| | A | EC #515015 INITIAL RELEASE | 11/30/2015 | |
| | B | EC #515383 ADD NEW P/N WITH MOUNTING BRACKET | 01/06/2016 | |
| | C | EC #515712 ADD PAGE 2, PAGE 3 | 03/30/2016 | |
| D1,E3,E4 | D | EC #516067 CORRECT THE MISSED SKETCH OF LATCHES IN VIEW WITH STRAIGHT BRACKET | 06/28/2016 | |



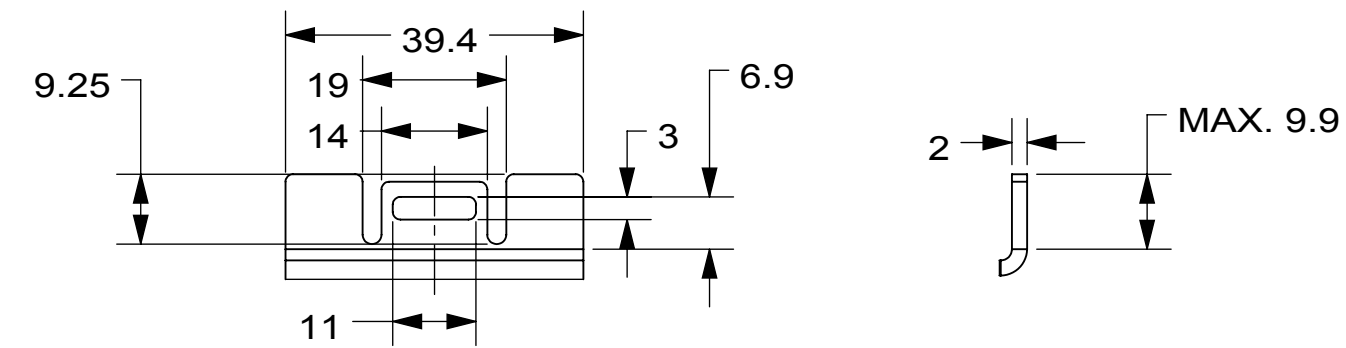
VIEW WITHOUT BRACKET



VIEW WITH STRAIGHT BRACKET



VIEW WITH TETHER AND 30° ANGLE BRACKET



THE LATCHING GEOMETRY OF BRACKET

CHART 3: CONFIGURATION

| HWB12 P/N | COVER | | | STRAIGHT BRACKET (868-964) |
|-------------|-------|-------|----------|----------------------------|
| | CLEAR | BLACK | REMARK | |
| PDM33001ZXM | x | | UL94 V-2 | |
| PDM33002ZXM | | x | UL94 V-0 | |
| PDM33003ZXM | x | | UL94 V-2 | x |
| PDM33004ZXM | | x | UL94 V-0 | x |

DIMENSIONS ARE SHOWN IN MILLIMETERS. DIMENSIONS AND TOLERANCES ARE DEFINED ACCORDING TO ANSIS/ASME Y14.5-1994.

- DENOTES PRODUCTS CRITICAL CHARACTERISTICS
- CPK DENOTES CPK DIMENSIONS MINIMUM CPK VALUE
- ST DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS
- CP DENOTES CP DIMENSIONS, -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE

TOLERANCES UNLESS OTHERWISE SPECIFIED (REF. ISO2768-M)

| DIMENSION | UP TO 0.5 - 3 | OVER 3 - 6 | OVER 6 - 30 | OVER 30 - 120 | OVER 120 - 400 | ANGLE |
|------------|---------------|------------|-------------|---------------|----------------|-------|
| TOLERANCES | ±0.1 | ±0.1 | ±0.2 | ±0.3 | ±0.5 | ±1° |

| NAME | DATE |
|--------|------------|
| J. LI | 10/29/2015 |
| E. JIN | 03/30/2016 |

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TITLE
 HARD WIRE BOX -12

THIRD ANGLE PROJECTION

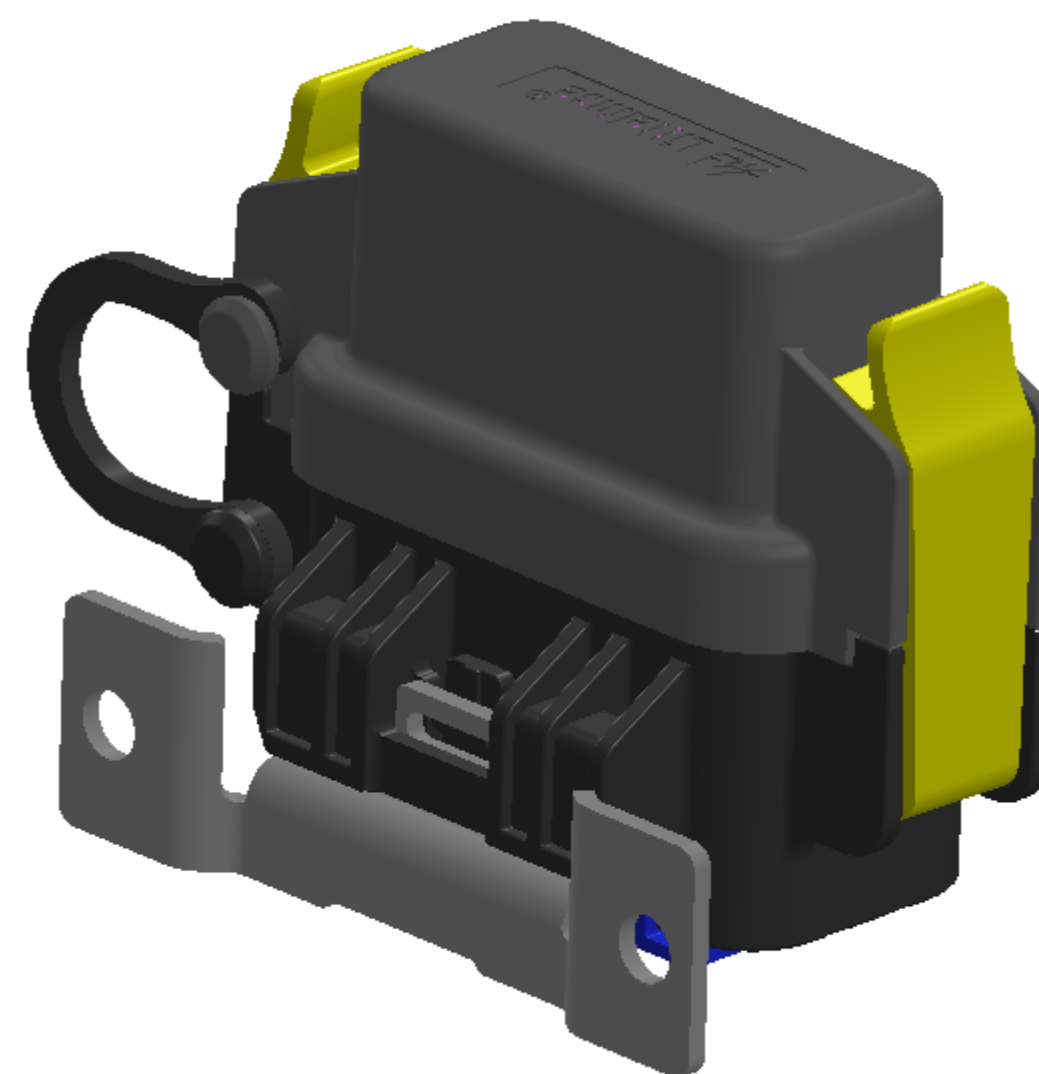
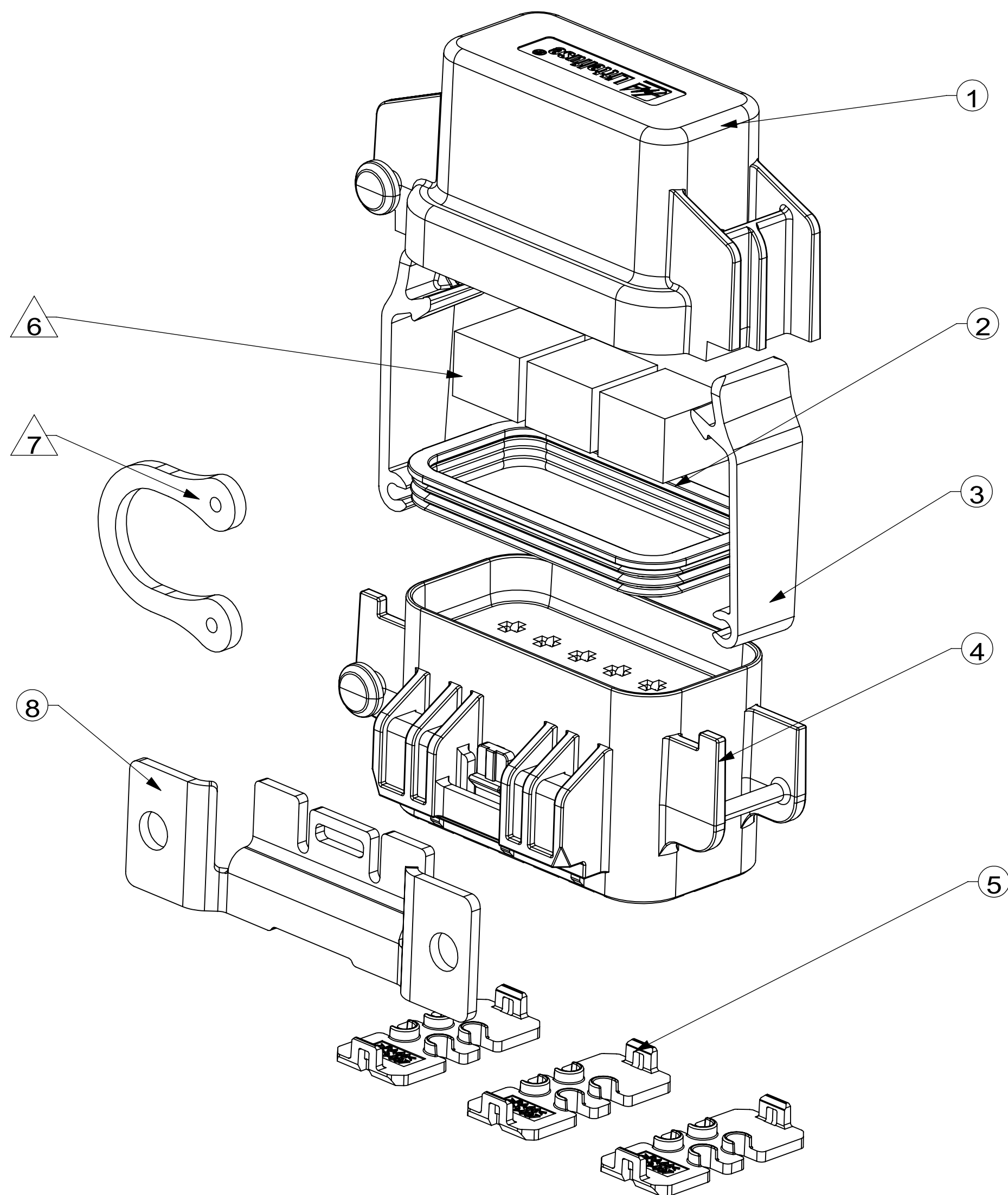
DO NOT SCALE DRAWING

SCALE 1:1

SHEET 1 OF 3

THIS DRAWING AND THE INFORMATION CONTAINED WITHIN IT ARE CONFIDENTIAL AND MAY NOT BE COPIED OR DISCLOSED WITHOUT THE WRITTEN PERMISSION OF LITTELFUSE.

| REVISIONS | | | | |
|-----------|------|-------------|------|----------|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
| | | SEE PAGE 1 | | |



NOTE:
PARTS MARKED Δ TO BE ORDERED SEPARATELY.

| # | PART | QTY | REMARK |
|---|--------------|-----|--------------------------------|
| 1 | COVER | 1 | TWO COLOR: CLEAR AND BALCK |
| 2 | SEAL | 1 | |
| 3 | YELLOW LATCH | 2 | |
| 4 | BASE | 1 | |
| 5 | TPA | 3 | |
| 6 | FOAM | 0~3 | APPLY 1 EA FOAM FOR EACH RELAY |
| 7 | TETHER | 1 | OPTIONAL, P/N: 890009470 |
| 8 | BRACKET | 1 | OPTIONAL, P/N: 868-964 |

| | | | | | | | | | | | | |
|--|--|--------------|---|------------|-----------|-------------|-----------|---------------|-----------|----------------|---------------|-------|
| DIMENSIONS ARE SHOWN IN MILLIMETERS. DIMENSIONS AND TOLERANCES ARE DEFINED ACCORDING TO ANSIS/ASME Y14.5-1994. | | | | | | | | | | | | |
| \bullet | DENOTES PRODUCTS CRITICAL CHARACTERISTICS | | | | | | | | | | | |
| CPK | DENOTES CPK DIMENSIONS MINIMUM CPK VALUE | | | | | | | | | | | |
| ST | DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS | | | | | | | | | | | |
| CP | DENOTES CP DIMENSIONS. -MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE | | | | | | | | | | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED (REF. ISO2768-M) | | | | | | | | | | | | |
| DIMENSION | UP TO 0.5 | OVER 0.5 - 3 | UP TO 3 | OVER 3 - 6 | UP TO 6 | OVER 6 - 30 | UP TO 30 | OVER 30 - 120 | UP TO 120 | OVER 120 - 400 | UP TO 400 | ANGLE |
| TOLERANCES | ± 0.1 | | ± 0.1 | | ± 0.2 | | ± 0.3 | | ± 0.5 | | $\pm 1^\circ$ | |
| DRAWN | NAME | DATE | Excelsite Applied Answa's Be. word No.6 Xinghai Street, Suzhou Industry Park, China Phone +86 512 6761 3189 Fax +86 512 6761 1489 | | | | | | | | | |
| CHECKED | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| THIRD ANGLE PROJECTION | | | TITLE | | | | | | | | | |
| DO NOT SCALE DRAWING | | | SCALE 1:2 | | | | | | | | | |
| SIZE C | | | DWG. NO. OL-PDM33000ZXM | | | | | | | | | |
| SHEET 2 OF 3 | | | REV. D | | | | | | | | | |

| REVISIONS | | | | |
|-----------|------|-------------|------|----------|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
| | | SEE PAGE 1 | | |

ASSEMBLY STEPS (FOR CUSTOMER ASSEMBLY USE ONLY)

STEP1: OPEN THE YELLOW LATCHES BY HAND, AND REMOVE THE COVER.

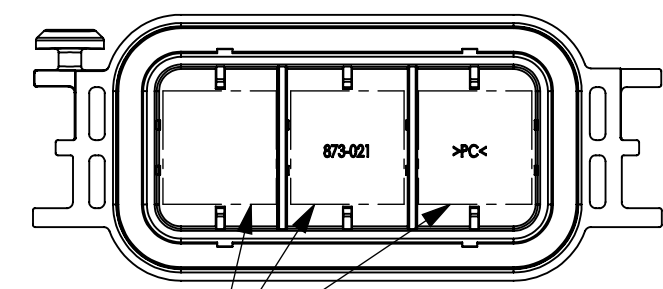
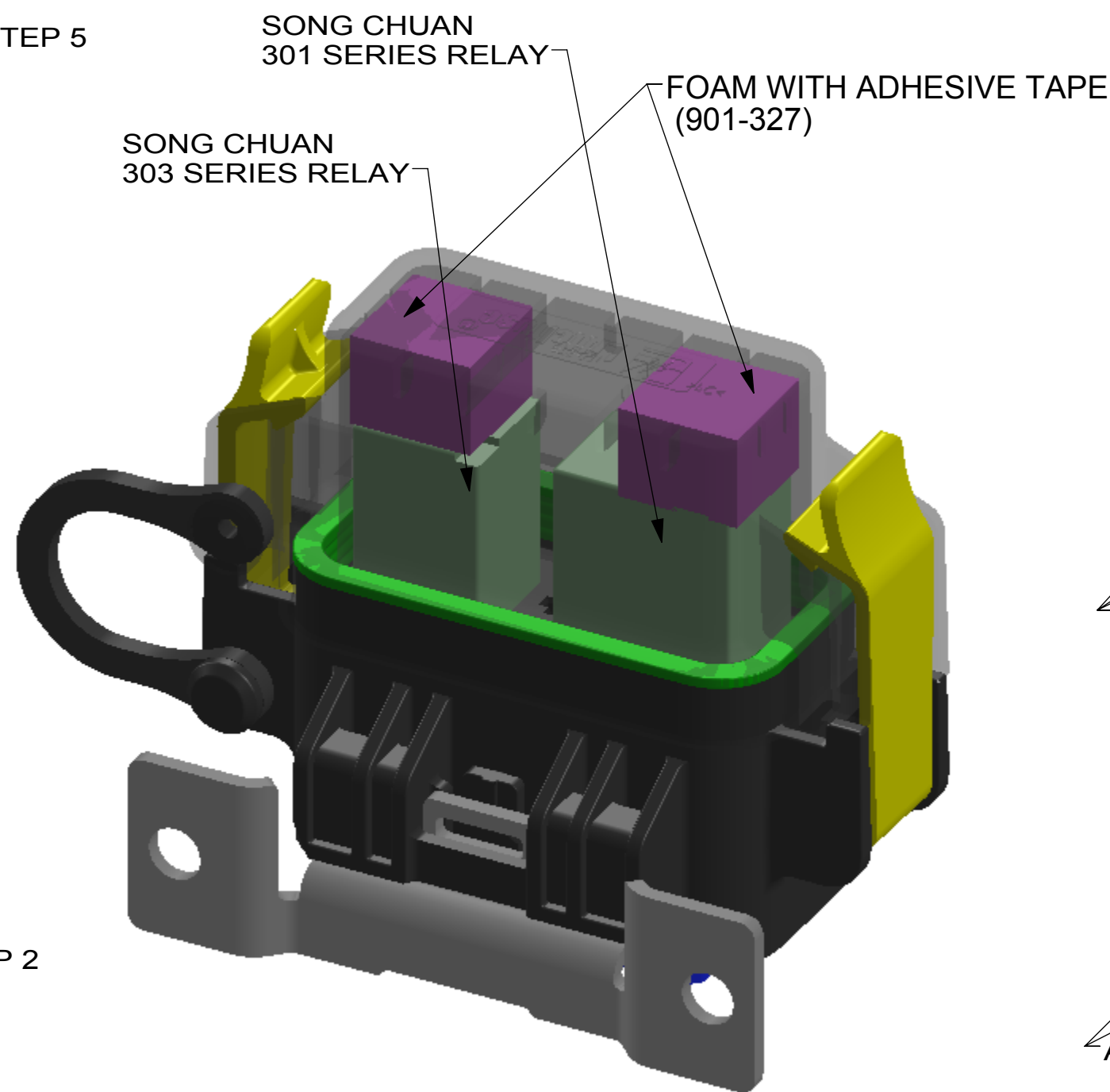
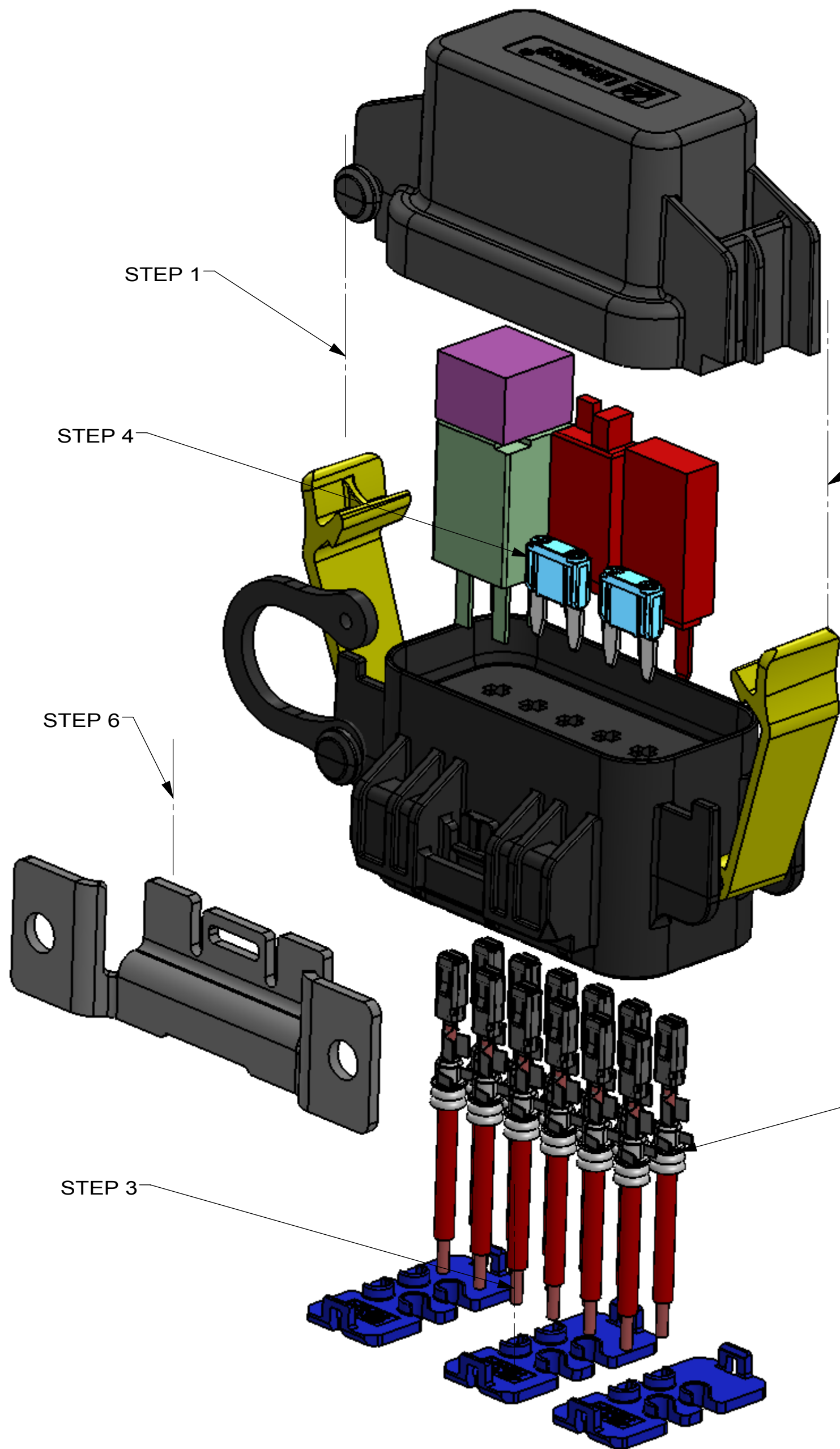
STEP2: PUT CABLE THROUGH THE CABLE SEAL AND STRIP THE CABLE, CRIMP THE CABLE AND CABLE SEAL WITH TE 2.8mm TERMINAL.

STEP3: INSERT THE CABLE WITH TERMINAL TO THE CABLE CAVITIES OF BASE UNTIL HEAR A CLICK SOUND, AND THEN SNAP THE TPAS TO THE BASE.

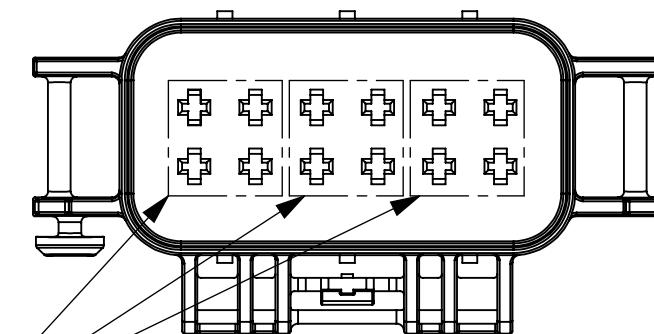
STEP4: INSERT 6 MINI FUSES OR COMBINATION OF MINI FUSE, MCASE FUSE (NEED ADAPTER), MINI CIRCUIT BREAKER AND RELAY.
PASTE A FOAM (901-327) ON THE RELEVANT PLACE IN COVER FOR EACH RELAY (IF APPLIED).

STEP5: ASSEMBLE THE COVER (SEAL SEATED BY LATCHES) WITH BASE AND SNAP THE YELLOW LATCHES.

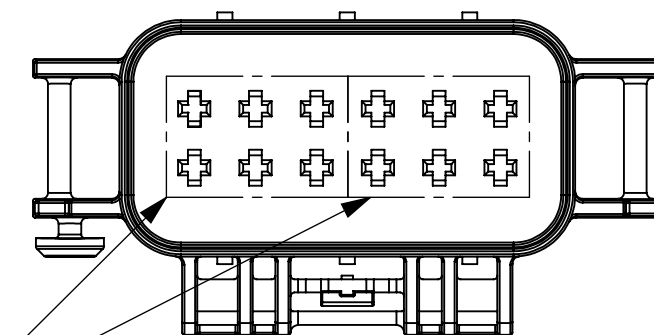
STEP6: OPTIONAL: INSERT THE BRACKET TO THE UNIT.



FOAM AREAS IN COVER



ALLOWED LOCATIONS FOR 4-PIN RELAY



ALLOWED LOCATIONS FOR 5-PIN RELAY

VIEW WITH RELAYS AND FOAMS

| | | | | | | | | |
|---|--|------------|--------------|-------------------|--|----------|-------|--|
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| TOLERANCES | ±0.1 | ±0.1 | ±0.2 | ±0.3 | ±0.5 | ±1° | | |
| NAME | DATE | Littelfuse | | | | | | |
| DRAWN | J. LI | 10/29/2015 | Littelfuse | | No.6 Xinghai Street, Suzhou Industry Park, China | | | |
| CHECKED | | | Littelfuse | | Phone +86 512 6761 3189 Fax +86 512 6761 1489 | | | |
| TITLE | | | | HARD WIRE BOX -12 | | | | |
| THIRD ANGLE PROJECTION | | | | | | | | |
| DO NOT SCALE DRAWING | SCALE 1:1 | SIZE C | DWG. NO. | REV. D | OL-PDM33000ZXM | | | |
| SHEET 3 OF 3 | | | | | | | | |