

FEMALE PLUG M12 90° ANGLED

NOTES:

RATED VOLTAGE: 3, 4 contacts 250V
 5 contacts 60V
 8 contacts 30V

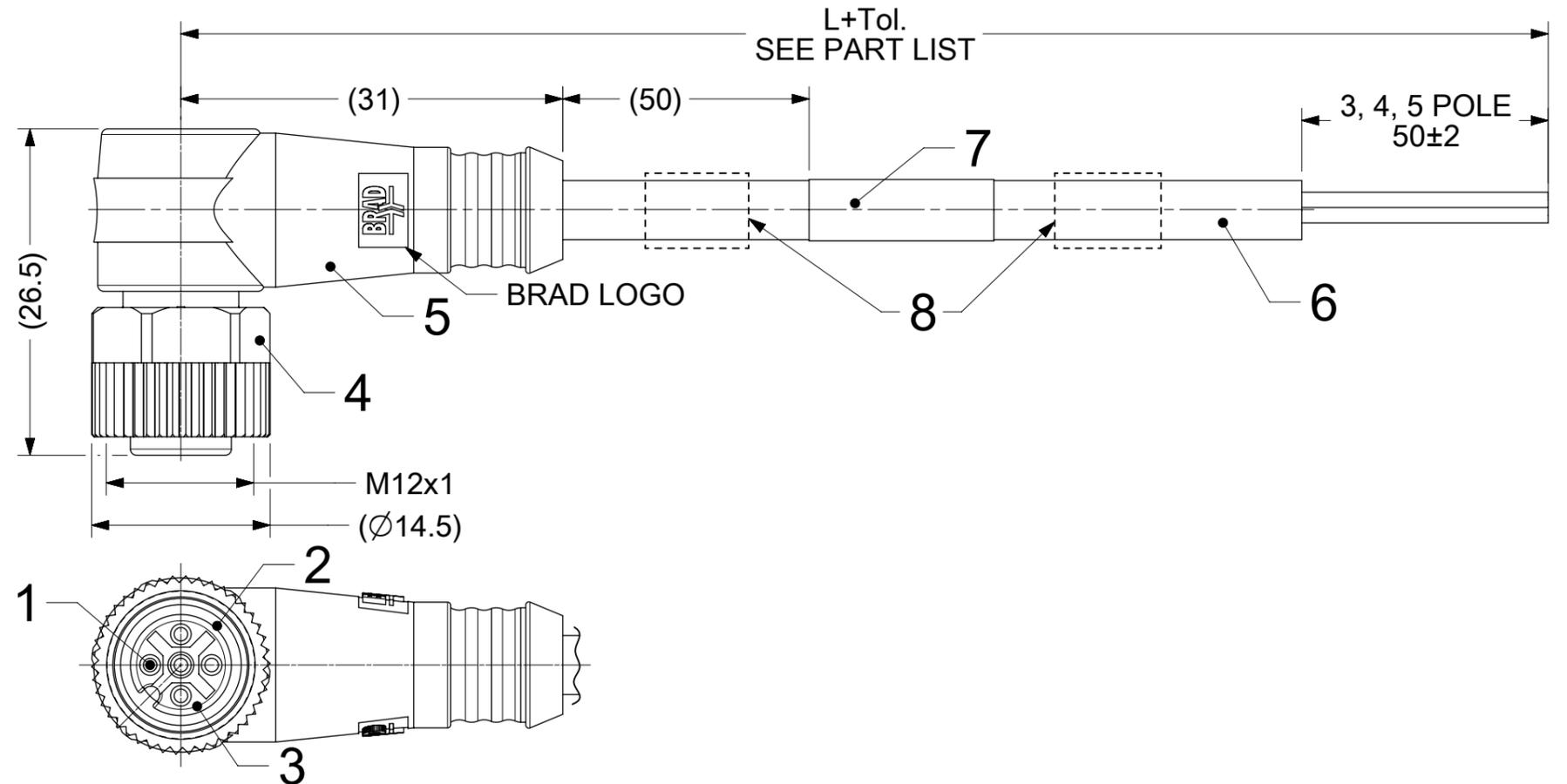
RATED CURRENT: 3, 4, 5 contacts 4A
 8 contacts 2A

TEMPERATURE: SEE CABLE INFORMATION

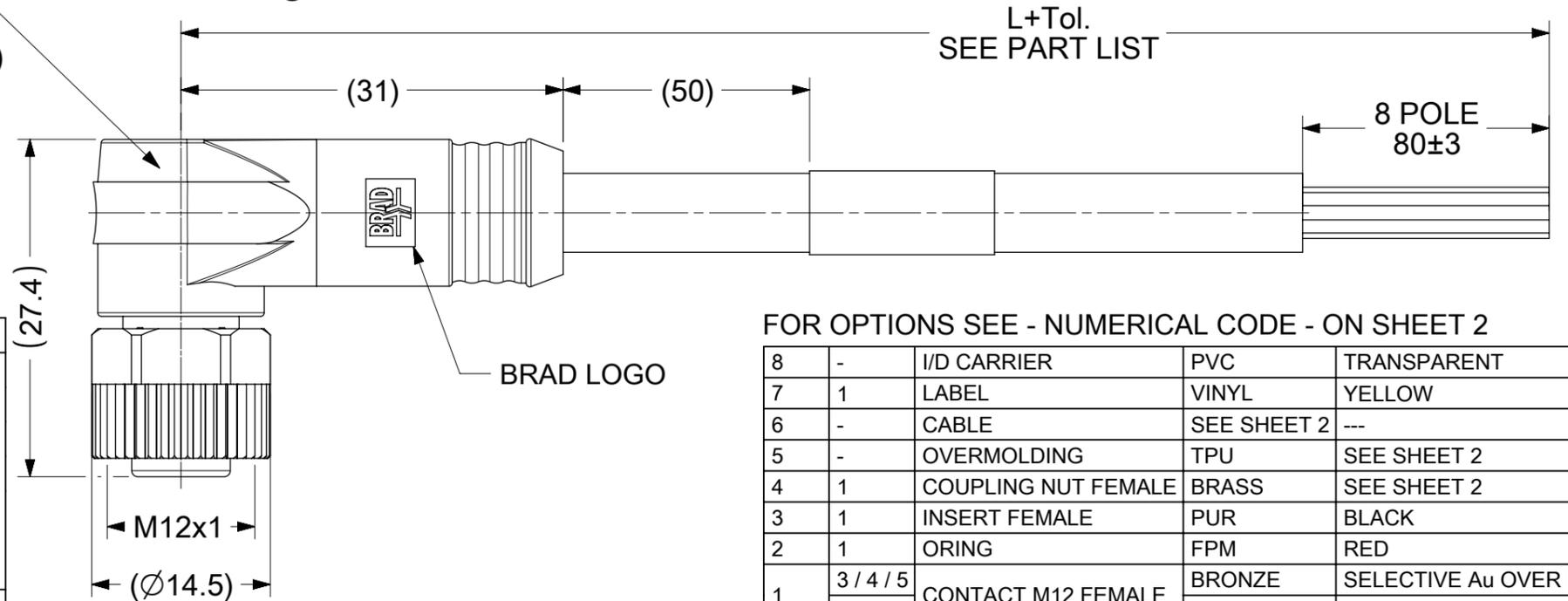
INSULATION RESISTANCE: 10⁸ Ω MIN.

MATING CYCLES: MIN. 100

ENVIRONMENTAL PROTECTION: IP67 IN MATED AND LOCKED POSITION



Thicker Overmold for Cables with bigger Outer Diameter ($\phi > 6$)



CONTACTS POSITION FRONT VIEW:

| 3 CONTACTS | | 4 CONTACTS | | 5 CONTACTS | | 8 CONTACTS | |
|------------|-------|------------|-------|------------|----------------------|------------|--------|
| | | | | | | | |
| PIN | WIRE | PIN | WIRE | PIN | WIRE | PIN | WIRE |
| 1 | BROWN | 1 | BROWN | 1 | BROWN | 1 | WHITE |
| 2 | --- | 2 | WHITE | 2 | WHITE | 2 | BROWN |
| 3 | BLUE | 3 | BLUE | 3 | BLUE | 3 | GREEN |
| 4 | BLACK | 4 | BLACK | 4 | BLACK | 4 | YELLOW |
| 5 | --- | 5 | --- | 5 | GREY OR GREEN/YELLOW | 5 | GREY |
| | | | | | | 6 | PINK |
| | | | | | | 7 | BLUE |
| | | | | | | 8 | RED |

FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

| ITEM | QTY. | DESCRIPTION | MATERIAL | FINISH / COLOR |
|------|----------------|---------------------|-------------|----------------------|
| 8 | - | I/D CARRIER | PVC | TRANSPARENT |
| 7 | 1 | LABEL | VINYL | YELLOW |
| 6 | - | CABLE | SEE SHEET 2 | --- |
| 5 | - | OVERMOLDING | TPU | SEE SHEET 2 |
| 4 | 1 | COUPLING NUT FEMALE | BRASS | SEE SHEET 2 |
| 3 | 1 | INSERT FEMALE | PUR | BLACK |
| 2 | 1 | ORING | FPM | RED |
| 1 | 3 / 4 / 5 8 | CONTACT M12 FEMALE | BRONZE | SELECTIVE Au OVER Ni |
| | | | BRASS | SELECTIVE Au OVER Ni |
| ITEM | QTY. | DESCRIPTION | MATERIAL | FINISH / COLOR |

| | | | | | | | |
|--|---|------------------------------|--|---|--|----------------------------|--|
| FUNCTIONAL SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | SCALE: 2:1 | | CURRENT REV DESC: CABLE B02 INFORMATION ADDED TO THE TABLE, NEW PN'S ADDED TO THE PART LIST | | molex | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | mm | | | | | |
| DIVISIONAL SYMBOLS | ANGULAR TOL ± 1.0° | 4 PLACES ± | | EC NO: 801127 | | DOCUMENT NUMBER | |
| | 2 PLACES ± 0.05 | 3 PLACES ± | | DRWN: RSCHIEBER 2024/10/14 | | DOC TYPE DOC PART REVISION | |
| 1 PLACE ± 0.3 | | 0 PLACES ± 0.5 | | CHK'D: RSILLER 2024/10/15 | | PRODUCT CUSTOMER DRAWING | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | | APPR: RSILLER 2024/10/15 | | 1200656607 | |
| | | DRAWING: A3-SIZE | | SERIES: 120065 | | PSD 000 B1 | |
| | | MATERIAL NUMBER: SEE SHEET 3 | | CUSTOMER: GENERAL MARKET | | SHEET NUMBER: 1 OF 3 | |

CODING REQUIRED TO IEC 61076-2-101

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Others on request).

8 0 X 0 0 1 X X X X X X X X

80=M12x1
Single ended

Contacts:
3=3 Contacts
4=4 Contacts
5=5 Contacts
8=8 Contacts

Heads style:
001=Plug Female
90° Angled

Cable type: See Table

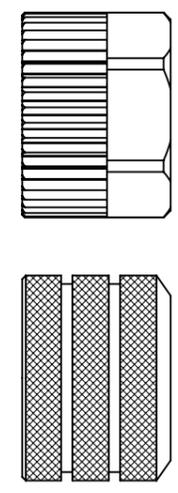
Units:
M=Meter

Length
Examples:
005=0.5 unit
010=1 unit
100=10 units

OVERMOLD COLOR:
BLANK (STANDARD)= BLACK
Y= YELLOW, A= GREY,
G= BLACK, R= RED

COUPLING NUT:
BLANK (STANDARD)= KNURLED
/HEX BRASS, Ni PLATED
7 = KNURLED BRASS, Ni PLATED,
TEFLON COATED
5 = KNURLED DERLIN

H = 2 pcs. of I/D Carrier
PVC Transparent
(Cables B36 always with
2 pcs. I/D Carrier)



CABLE INFORMATION (for more information see Cable Data Sheet).

| CABLE TYPE | NO. OF WIRES | CROSS SECTION | CABLE JACKET | UL | CSA | STATIC: TEMP. / BENDING RADIUS | DYNAMIC: TEMP. / BENDING RADIUS | DRAG CHAIN TESTED | OTHER | CABLE SPEC. DRAWING |
|------------|--------------|---------------------|---------------|-------------|-----|--------------------------------|---------------------------------|-------------------|----------------------|---------------------|
| B30 | 3 / 4 / 5 | 0.34mm ² | TPU BLACK | STYLE 21215 | YES | -40°C to +90°C, 5xO.D. | -25°C to +80°C, 7.5xO.D. | 5 MIO CYCLES | WELD SLAG RESISTANCE | SD-120209-001 |
| B42 | 5 | | | | | | | | | SD-120209-001 |
| B41 | 8 | 0.25mm ² | SD-120209-006 | | | | | | | |
| B36 | 4 | 0.34mm ² | TPU ORANGE | | | | | | | SD-120209-001 |
| B33 | 4 / 5 | 0.34mm ² | TPU GRAY | | | | | | | SD-120209-001 |
| B55 | 4 / 5 | 0.34mm ² | TPU YELLOW | | | | | | | 1552200001 PS |
| B02 | 4 | 0.75mm ² | PUR YELLOW | STYLE 20549 | YES | - | - | - | - | 86-1842 |

| | | | | | | | |
|--|---|------------------------|---|--------|---|----------------|--------------|
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| | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | SCALE | | | CURRENT REV DESC: CABLE B02 INFORMATION ADDED TO THE TABLE, NEW PN'S ADDED TO THE PART LIST | | |
| △/A = 0 | mm | 1:1 | EC NO: 801127 DRWN: RSCHIEBER 2024/10/14 CHK'D: RSILLER 2024/10/15 APPR: RSILLER 2024/10/15 | | | | |
| △/E = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | | | |
| △/V = 0 | ANGULAR TOL ± 1.0° | | | | | | |
| DIVISIONAL SYMBOLS | 4 PLACES ± | | PRODUCT CUSTOMER DRAWING DOCUMENT NUMBER: 1200656607 DOC TYPE: PSD DOC PART: 000 REVISION: B1 | | | | |
| | 3 PLACES ± | | | | | | |
| | 2 PLACES ± | 0.05 | | | | | |
| | 1 PLACE ± | 0.3 | | | | | |
| | 0 PLACES ± | 0.5 | INITIAL REVISION: DRWN: SSM 2021/12/13 APPR: RSILLER 2022/02/28 | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
| | | | A3-SIZE | 120065 | SEE SHEET 3 | GENERAL MARKET | 2 OF 3 |

PART LIST

| MOLEX PN | ENGINEERING No | L [mm] |
|--------------|----------------|--------|
| 3P CABLE B30 | | |
| 1200652259 | 803001B30M010 | 1000 |
| 1200652260 | 803001B30M020 | 2000 |
| 1200652261 | 803001B30M050 | 5000 |
| 1200652262 | 803001B30M100 | 10000 |
| 4P CABLE B30 | | |
| 1200652263 | 804001B30M010 | 1000 |
| 1200652264 | 804001B30M020 | 2000 |
| 1200659470 | 804001B30M030 | 3000 |
| 1200652265 | 804001B30M050 | 5000 |
| 1200659807 | 804001B30M083 | 8300 |
| 1200652266 | 804001B30M100 | 10000 |
| 1200659401 | 804001B30M150 | 15000 |
| 1200659471 | 804001B30M200 | 20000 |
| 1200659472 | 804001B30M250 | 25000 |
| 1200659473 | 804001B30M300 | 30000 |
| 5P CABLE B30 | | |
| 1200659522 | 805001B30M010 | 1000 |
| 1200659523 | 805001B30M020 | 2000 |
| 1200656665 | 805001B30M030 | 3000 |
| 1200659524 | 805001B30M050 | 5000 |
| 1200659525 | 805001B30M100 | 10000 |
| 1200659748 | 805001B30M150 | 15000 |
| 1200656484 | 805001B30M200 | 20000 |
| 8P CABLE B41 | | |
| 1200652310 | 808001B41M010 | 1000 |
| 1200652311 | 808001B41M020 | 2000 |
| 1200652312 | 808001B41M050 | 5000 |
| 1200659789 | 808001B41M083 | 8300 |
| 1200652313 | 808001B41M100 | 10000 |
| 1200656022 | 808001B41M150 | 15000 |
| 1200656486 | 808001B41M200 | 20000 |
| 5P CABLE B42 | | |
| 1200652267 | 805001B42M010 | 1000 |
| 1200652268 | 805001B42M020 | 2000 |
| 1200652269 | 805001B42M050 | 5000 |
| 1200652270 | 805001B42M100 | 10000 |
| 1200659542 | 805001B42M200 | 20000 |

| MOLEX PN | ENG No. | L [mm] |
|--------------|----------------|--------|
| 4P CABLE B33 | | |
| 1200657144 | 804001B33M005A | 500 |
| 1200656607 | 804001B33M010A | 1000 |
| 1200656608 | 804001B33M020A | 2000 |
| 1200656609 | 804001B33M030A | 3000 |
| 1200656610 | 804001B33M050A | 5000 |
| 1200656611 | 804001B33M100A | 10000 |
| 1200656612 | 804001B33M150A | 15000 |
| 1200656613 | 804001B33M200A | 20000 |
| 5P CABLE B33 | | |
| 1200657181 | 805001B33M005A | 500 |
| 1200656658 | 805001B33M010A | 1000 |
| 1200656659 | 805001B33M020A | 2000 |
| 1200656660 | 805001B33M030A | 3000 |
| 1200656661 | 805001B33M050A | 5000 |
| 1200656662 | 805001B33M100A | 10000 |
| 1200656663 | 805001B33M150A | 15000 |
| 1200656664 | 805001B33M200A | 20000 |
| 1200657182 | 805001B33M300A | 30000 |
| 1200657183 | 805001B33M400A | 40000 |
| 1200657184 | 805001B33M500A | 50000 |
| 4P CABLE B55 | | |
| 1200656627 | 804001B55M010Y | 1000 |
| 1200656628 | 804001B55M020Y | 2000 |
| 1200656629 | 804001B55M030Y | 3000 |
| 1200656630 | 804001B55M050Y | 5000 |
| 1200656631 | 804001B55M100Y | 10000 |
| 1200656632 | 804001B55M150Y | 15000 |
| 1200656633 | 804001B55M200Y | 20000 |
| 5P CABLE B55 | | |
| 1200656666 | 805001B55M010Y | 1000 |
| 1200656667 | 805001B55M020Y | 2000 |
| 1200656668 | 805001B55M030Y | 3000 |
| 1200656669 | 805001B55M050Y | 5000 |
| 1200656670 | 805001B55M100Y | 10000 |
| 1200656671 | 805001B55M150Y | 15000 |
| 1200656672 | 805001B55M200Y | 20000 |

| MOLEX PN | ENG No. | L [mm] |
|--------------|-----------------|--------|
| 4P CABLE B36 | | |
| 1200656852 | 804001B36M0107Y | 1000 |
| 1200656391 | 804001B36M0207H | 2000 |
| 1200659432 | 804001B36M0207Y | 2000 |
| 1200656392 | 804001B36M0507H | 5000 |
| 1200659433 | 804001B36M0507Y | 5000 |
| 1200656393 | 804001B36M1007H | 10000 |
| 1200659434 | 804001B36M1007Y | 10000 |
| 4P CABLE B02 | | |
| 1200651313 | 804001B02M040 | 4000 |
| 1200651315 | 804001B02M050 | 5000 |
| | | |
| | | |

CABLE LENGTH TOLERANCES

| LENGTH | TOLERANCE |
|--------------|------------|
| 0 m - 1 m | +40 mm |
| >1 m - 5 m | +60 mm |
| >5 m - 10 m | +80 mm |
| >10 m - 20 m | +140 mm |
| >20 m - 30 m | +160 mm |
| >30 m | +1% length |

| | | | |
|--|---|------------------------|--|
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| | DIMENSION UNITS | SCALE | CURRENT REV DESC: CABLE B02 INFORMATION ADDED TO THE TABLE, NEW PN'S ADDED TO THE PART LIST |
| | $\sqrt{A} = 0$ | mm | 1:1 |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) | | |
| DIVISIONAL SYMBOLS | ANGULAR TOL | $\pm 1.0^\circ$ | EC NO: 801127 DRWN: RSCHIEBER CHK'D: RSILLER APPR: RSILLER INITIAL REVISION: DRWN: SSM APPR: RSILLER |
| | 4 PLACES | \pm | |
| | 3 PLACES | \pm | |
| | 2 PLACES | ± 0.05 | |
| | 1 PLACE | ± 0.3 | |
| | 0 PLACES | ± 0.5 | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | THIRD ANGLE PROJECTION | DRAWING |
| | | | A3-SIZE |
| | | SERIES | 120065 |
| | | MATERIAL NUMBER | SEE SHEET 3 |
| | | CUSTOMER | GENERAL MARKET |
| | | DOCUMENT NUMBER | 1200656607 |
| | | DOC TYPE | PSD |
| | | DOC PART | 000 |
| | | REVISION | B1 |
| | | SHEET NUMBER | 3 OF 3 |

molex

CSE M12 XP AC FE RA XM SE UNSH

PRODUCT CUSTOMER DRAWING

NOTE:
* (STAR) - INDICATES THESE PNS ONLY HAVE ID CARRIER IN BOM.

| | | | | |
|-----------------|----|--------------|------------|----------|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2024/10/15 | 11:44:50 |
|-----------------|----|--------------|------------|----------|