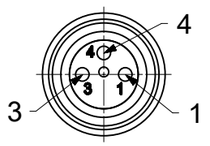
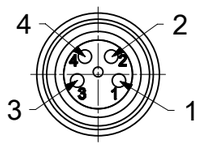
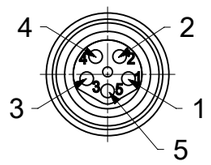
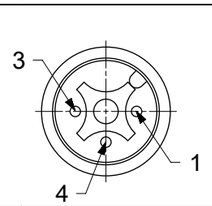
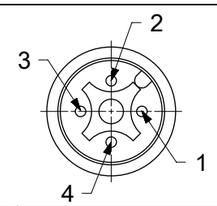
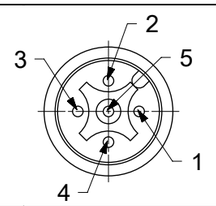



CONTACTS POSITION FRONT VIEW:

| | 3 CONTACTS | 4 CONTACTS | 5 CONTACTS |
|---|---|---|---|
| M8 - FEMALE |  |  |  |
| M12 - MALE |  |  |  |

| CONNECTIONS | PIN | WIRE | PIN | WIRE | PIN | WIRE |
|---|---|---|---|---|---|---|
| | 1 | BROWN | 1 | BROWN | 1 | BROWN |
| | 3 | BLUE | 2 | WHITE | 2 | WHITE |
| | 4 | BLACK | 3 | BLUE | 3 | BLUE |
| | | | 4 | BLACK | 4 | BLACK |
| | | | | | 5 | GREY |

CODING M8 ACCORDING TO IEC 61076-2-104
CODING M12 ACCORDING TO IEC IEC 61076-2-101

NOTES:

1. LABEL ON THE CABLE
   / FOR CABLE Ixx PRINTING ON THE CABLE
   (ENGINEERING No – THE SAME DIMENSION LIKE FOR LABEL)
2. 2 x ID CARRIER IF IN MATRIX IS "H"
   OR FOR CABLE IXX & P82.

ELECTRICAL DATA:
RATED VOLTAGE: 3 contacts 60V AC/DC
4 & 5 contacts 30V AC/DC
CURRENT RATING: 3, 4, 5 contacts 3A
PROTECTION CLASS: IP67
TEMPERATURE: SEE CABLE TYPE TABLE
PACKAGING ACCORDING TO PACKAGING SPEC. 1201202000

| | | | |
|---|---|---|---|
| DOCUMENT STATUS | P1 | RELEASE DATE | 2025/08/04 13:33:38 |

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FUNCTIONAL SYMBOLS: FA = 0, FC = 0, FD = 0
DIVISIONAL SYMBOLS

| DIMENSION UNITS | SCALE |
|---|---|
| mm | 2:1 |

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | |
|---|---|
| ANGULAR TOL | ± 1.0 ° |
| 4 PLACES | ± |
| 3 PLACES | ± |
| 2 PLACES | ± 0.05 |
| 1 PLACE | ± 0.3 |
| 0 PLACES | ± 0.5 |

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC: ADDED TWO NEW PNS' 1200879101 & 1200879102 TO THE DRAWING

EC NO: 830554
DRWN: VHANDI 2025/08/01
CHK'D: THAERDT 2025/08/04
APPR: THAERDT 2025/08/04

INITIAL REVISION:
DRWN: AKONDRACIUK 2017/06/12
APPR: MIWASIECZKO 2017/06/14

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NC/MMC-XP-FE/MM-ST/ST-XM

PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1200878038 | PSD | 000 | A12 |

| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | A3-SIZE | 120087 | SEE PART LIST | GENERAL MARKET | 1 OF 3 |

FORMAT: master_sheet-A3
REVISION: J
DATE: 2020/01/14

# PART NO MATRIX

| 4 | 8 | * | 0 | 3 | 0 | * | * | * | M | * | * | * | OPTIONS * | * |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

- 48 = M8x1/M12x1 DOUBLE ENDED
- POLES:
  3 = 3 POLES
  4 = 4 POLES
  5 = 5 POLES
- HEADER:
  030 = FEMALE STRAIGHT
  - MALE STRAIGHT
- CABLE TYPE SEE TABLE
- UNIT:
  M = METER
- LENGTH:
  EXAMPLE:
  010 = 1 m
  050 = 5 m
  100 = 10 m
- H = 2 PCS. OF I/D CARIERR
  MOLDING/OVERMOULD:
  BLANK = BLACK
  BLANK = YELLOW TPE-E for cables K05
  BLANK = YELLOW PUR for cables A09
  A = GREY
  G = BLACK
  Y = YELLOW
  COUPLING NUT:
  BLANK=KNU/HEX
  7=TEFLON
  BLANK=7 for cables K05



## CABLE TYPE TABLE

| CABLE TYPE | NO. OF WIRES | CROSS SECTION | CABLE JACKET | UL | CSA | STATIC: TEMP. / BENDING RADIUS | DYNAMIC: TEMP. / BENDING RADIUS | DRAG CHAIN | SHIELD |
|---|---|---|---|---|---|---|---|---|---|
| E02 | 3<br>4 | 0.25mm² | PVC BLACK | UL 2464/1729 | C22.2 I/II A/B 80°C/300V | -30°C to +80°C, 10xO.D. | -10°C to +80°C, 15xO.D. | - | - |
| H08 | 3<br>4 | 0.25mm² | PUR BLACK LS0H | UL 21198/10493 | C22.2 I/II A/B 80°C/300V | -40°C to +80°C, 5xO.D. | -25°C to +80°C, 10xO.D. | 2 000 000 cycles at 20°C, Temp. range +5°C to +60°C | - |
| P02 | 3<br>4 | 0.25mm² | PUR / PVC BLACK | - | - | -30°C to +80°C, 7xO.D. | -5°C to +80°C, 15xO.D. | - | - |
| P82 | 3 | 0.34mm² | PUR IRR ORANGE | - | - | -50°C to +105°C, >5xO.D. | -40°C to +105°C, >7.5xO.D. | - | - |
| I02 | 3<br>4 | 0.25mm² | PVC CEI GREY | - | - | -30°C to +70°C | -5°C to +70°C | - | - |
| A09 | 4 | 0.34mm² | PVC YELLOW | UL 2661 | I/II A/B 80°C/300V | - | - | - | - |
| K05 | 3<br>4 | 0.34mm² | TPE YELLOW | UL ITC or PLTC | I/II A/B 90°C/300V | max 105°C | - | - | - |

| BILL OF MATERIALS | | | | | | |
|---|---|---|---|---|---|---|
| ITEM | 3P | 4P | QTY. | DESCRIPTION | MATERIAL | FINISH |
| 1 | X | X | - | CABLE (SEE MATRIX) | - | - |
| 2 | X | X | - | MOULDING MATERIAL | SEE MATRIX | - |
| 3 | X | X | 3/4 | CONTACT 10 FE STA AU CR WRA 0.14-0.50 | COPPER | Au |
| 4 | X | X | 3/4 | CONTACT 10 MA STA NI AU CR WRA 0.14-0.5 | COPPER | Au |
| 5 | X | | 1,000 | INSERT M8 FE 3P 0C CSE PUR BK UNSH | PUR | BK |
| 6 | X | X | 1,000 | GASKET OR FKM 5.0X0.8 RD 70 | FKM | RD |
| 7 | X | X | 1,000 | NUT:M8:FEMALE-COUPLING | BRASS | |
| 8 | X | | 1,000 | MMC-3P-MALE/MALE INSERT | PUR | BK |
| 9 | X | X | 1,000 | M12 MALE COUPLING NUT-BRASS;rev.1 | BRASS | |
| 10 | X | X | 1,000 | HEAD BK M8 STR;12115-1;899921504 | TPU | BK |
| 11 | X | X | 1,000 | HEAD BK M12 STR;12114-1;899921504 | TPU | BK |
| 12 | X | X | 1,000 | LABEL;2.0X1.75;WRAP-B427;YE | PVC | YE |
| 13 | X | X | 2,000 | I/D CARRIER DIA 4-7MMX30MM | PVC | |
| 14 | | X | 1,000 | INSERT M8 FE 4P 0C CSE PUR BK UNSH | PUR | BK |
| 15 | | X | 1,000 | MMC-4P-MALE/MALE HOUSING | PUR | BK |

| TABLE OF LENGTH TOLERANCES | | |
|---|---|---|
| OVER (mm) | UP TO AND INCLUDING (mm) | TOLERANCE (+) (mm) |
| 0 | 305 | +19 |
| 305 | 915 | +45 |
| 915 | 1830 | +56 |
| 1830 | 3660 | +89 |
| 3660 | 7320 | +165 |
| 7320 | 14640 | +317 |
| 14640 | 30500 | +610 |
| 30500 | > | +2% OF LENGTH |

FUNCTIONAL SYMBOLS
FA = 0
FC = 0
FP = 0
DIVISIONAL SYMBOLS

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DIMENSION UNITS: mm | SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | | |
|---|---|---|
| ANGULAR TOL | ± | 1.0 ° |
| 4 PLACES | ± | |
| 3 PLACES | ± | |
| 2 PLACES | ± | 0.05 |
| 1 PLACE | ± | 0.3 |
| 0 PLACES | ± | 0.5 |

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EC NO: 830554

| | | |
|---|---|---|
| DRWN: | VHANDI | 2025/08/01 |
| CHK'D: | THAERDT | 2025/08/04 |
| APPR: | THAERDT | 2025/08/04 |

INITIAL REVISION:

| | | |
|---|---|---|
| DRWN: | AKONDRACIUK | 2017/06/12 |
| APPR: | MIWASIECZKO | 2017/06/14 |

THIRD ANGLE PROJECTION | DRAWING: A3-SIZE | SERIES: 120087

molex

NC/MMC-XP-FE/MM-ST/ST-XM

PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1200878038 | PSD | 000 | A12 |

| MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|
| SEE PART LIST | GENERAL MARKET | 2 OF 3 |

| DOCUMENT STATUS | P1 | RELEASE DATE | 2025/08/04 13:33:38 |
|---|---|---|---|

FORMAT: master_B_mc-A3
REVISION: J1
DATE: 2020/01/16

# PART LIST

| Part No | Engineering No | Cable Length |
|---|---|---|
| 3P CABLE A09 | | |
| 1200668248 | 483030A09M006 | 0.6m |
| 3P CABLE E02 | | |
| 1200878404 | 483030E02M003 | 0.3m |
| 1200878405 | 483030E02M005 | 0.5m |
| 1200878038 | 483030E02M006 | 0.6m |
| 1200878406 | 483030E02M010 | 1m |
| 1200878955 | 483030E02M015 | 1.5m |
| 1200878039 | 483030E02M020 | 2m |
| 1200878408 | 483030E02M030 | 3m |
| 1200878409 | 483030E02M050 | 5m |
| 1200878410 | 483030E02M100 | 10m |
| 1200878646 | 483030E02M003H | 0.3m |
| 1200878597 | 483030E02M005H | 0.5m |
| 1200878647 | 483030E02M006H | 0.6m |
| 1200878407 | 483030E02M010H | 1m |
| 1200878648 | 483030E02M020H | 2m |
| 1200878649 | 483030E02M030H | 3m |
| 1200878656 | 483030E02M040H | 4m |
| 1200878650 | 483030E02M050H | 5m |
| 4P CABLE E02 | | |
| 1200878459 | 484030E02M003 | 0.3m |
| 1200878460 | 484030E02M005 | 0.5m |
| 1200878461 | 484030E02M006 | 0.6m |
| 1200878073 | 484030E02M010 | 1m |
| 1200878462 | 484030E02M015 | 1.5m |
| 1200879032 | 484030E02M016 | 1.6m |
| 1200878961 | 484030E02M018 | 1.8m |
| 1200878463 | 484030E02M020 | 2m |
| 1200878962 | 484030E02M024 | 2.4m |
| 1200878464 | 484030E02M025 | 2.5m |
| 1200879033 | 484030E02M027 | 2.7m |
| 1200878074 | 484030E02M030 | 3m |
| 1200878963 | 484030E02M031 | 3.1m |
| 1200878466 | 484030E02M035 | 3.5m |
| 1200879034 | 484030E02M038 | 3.8m |
| 1200878467 | 484030E02M040 | 4m |
| 1200878964 | 484030E02M042 | 4.2m |
| 1200878468 | 484030E02M050 | 5m |
| 1200878469 | 484030E02M100 | 10m |
| 1200878696 | 484030E02M005H | 0.5m |
| 1200878662 | 484030E02M010H | 1m |
| 1200878668 | 484030E02M020H | 2m |
| 1200878669 | 484030E02M025H | 2.5m |
| 1200878465 | 484030E02M030H | 3m |
| 1200878670 | 484030E02M050H | 5m |

| Part No | Engineering No | Cable Length |
|---|---|---|
| 3P CABLE H08 | | |
| 1200868220 | 483030H08M003 | 0.3m |
| 1200868221 | 483030H08M006 | 0.6m |
| 1200878510 | 483030H08M010 | 1m |
| 1200878255 | 483030H08M020 | 2m |
| 1200878524 | 483030H08M030 | 3m |
| 1200878511 | 483030H08M050 | 5m |
| 1200878512 | 483030H08M100 | 10m |
| 1200868619 | 483030H08M003H | 0.3m |
| 1200868935 | 483030H08M006H | 0.6m |
| 1200879064 | 483030H08M010H | 1.0m |
| 1200878544 | 483030H08M010Y | 1m |
| 1200878992 | 483030H08M015H | 1.5m |
| 1200879002 | 483030H08M020H | 2.0m |
| 1200878993 | 483030H08M025H | 2.5m |
| 1200879065 | 483030H08M035H | 3.5m |
| 1200868817 | 483030H08M040H | 4m |
| 1200879066 | 483030H08M045H | 4.5m |
| 1200879067 | 483030H08M050H | 5.0m |
| 1200879068 | 483030H08M055H | 5.5m |
| 1200879069 | 483030H08M060H | 6.0m |
| 1200879070 | 483030H08M065H | 6.5m |
| 1200879071 | 483030H08M070H | 7.0m |
| 1200879072 | 483030H08M075H | 7.5m |
| 1200879073 | 483030H08M080H | 8.0m |
| 4P CABLE H08 | | |
| 1200878147 | 484030H08M003 | 0.3m |
| 1200878565 | 484030H08M006 | 0.6m |
| 1200878516 | 484030H08M010 | 1m |
| 1200878566 | 484030H08M020 | 2m |
| 1200878578 | 484030H08M0209 | 2m |
| 1200878525 | 484030H08M030 | 3m |
| 1200879101 | 484030H08M040H | 4m |
| 1200879102 | 484030H08M045H | 4.5m |
| 1200878567 | 484030H08M050 | 5m |
| 1200878600 | 484030H08M0509 | 5m |
| 1200878598 | 484030H08M100 | 10m |
| 1200879000 | 484030H08M003H | 0.3m |
| 1200879008 | 484030H08M006H | 0.6m |
| 1200879005 | 484030H08M010H | 1.0m |
| 1200878994 | 484030H08M015H | 1.5m |
| 1200879009 | 484030H08M020H | 2.0m |
| 1200878995 | 484030H08M025H | 2.5m |
| 1200879006 | 484030H08M030H | 3.0m |
| 1200878996 | 484030H08M035H | 3.5m |
| 1200879099 | 484030H08M055H | 5.5m |
| 1200879075 | 484030H08M060H | 6.0m |
| 1200879076 | 484030H08M065H | 6.5m |

| Part No | Engineering No | Cable Length |
|---|---|---|
| 1200879077 | 484030H08M070H | 7.0m |
| 1200879078 | 484030H08M075H | 7.5m |
| 1200879079 | 484030H08M080H | 8.0m |
| 3P CABLE I02 | | |
| 1200878411 | 483030I02M003 | 0.3m |
| 1200280282 | 483030I02M006 | 0.6m |
| 1200280056 | 483030I02M010 | 1m |
| 1200878412 | 483030I02M015 | 1.5m |
| 1200280057 | 483030I02M020 | 2m |
| 1200280058 | 483030I02M030 | 3m |
| 1200280059 | 483030I02M050 | 5m |
| 1200878549 | 483030I02M010Y | 1m |
| 1200878531 | 483030I02M020Y | 2m |
| 1200878829 | 483030I02M030Y | 3m |
| 1200878532 | 483030I02M050Y | 5m |
| 1200878830 | 483030I02M100Y | 10m |
| 4P CABLE I02 | | |
| 1200878519 | 484030I02M006 | 0.6m |
| 1200878520 | 484030I02M010 | 1m |
| 1200878470 | 484030I02M030 | 3m |
| 1200878523 | 484030I02M050 | 5m |
| 3P CABLE K05 | | |
| 1200281261 | 483030K05M003 | 0.3m |
| 1200870491 | 483030K05M006 | 0.6m |
| 1200870493 | 483030K05M020 | 2.0m |
| 1200870496 | 483030K05M050 | 5.0m |
| 1200871081 | 483030K05M250 | 25m |
| 4P CABLE K05 | | |
| 1200878550 | 484030K05M003 | 0.3m |
| 1200868555 | 484030K05M006 | 0.6m |
| 1200281315 | 484030K05M010 | 1.0m |
| 1200868556 | 484030K05M020 | 2.0m |
| 1200868557 | 484030K05M050 | 5.0m |
| 1200860669 | 484030K05M250 | 25m |

| Part No | Engineering No | Cable Length |
|---|---|---|
| 3P CABLE P82 | | |
| 1200878121 | 483030P82M003 | 0.3m |
| 1200280411 | 483030P82M0037 | 0.3m |
| 1200878045 | 483030P82M0067 | 0.6m |
| 1200280869 | 483030P82M0107 | 1m |
| 1200280532 | 483030P82M030 | 3m |
| 3P CABLE P02 | | |
| 1200668183 | 483030P02M003 | 0.3m |
| 1200878413 | 483030P02M006 | 0.6m |
| 1200878414 | 483030P02M010 | 1m |
| 1200878848 | 483030P02M015 | 1.5m |
| 1200878415 | 483030P02M020 | 2m |
| 1200878416 | 483030P02M030 | 3m |
| 1200878417 | 483030P02M050 | 5m |
| 1200878418 | 483030P02M065 | 6.5m |
| 1200878419 | 483030P02M070 | 7m |
| 1200878420 | 483030P02M100 | 10m |
| 4P CABLE P02 | | |
| 1200878471 | 484030P02M006 | 0.6m |
| 1200878472 | 484030P02M010 | 1m |
| 1200878849 | 484030P02M015 | 1.5m |
| 1200878473 | 484030P02M020 | 2m |
| 1200878474 | 484030P02M030 | 3m |
| 1200878475 | 484030P02M050 | 5m |
| 1200878476 | 484030P02M100 | 10m |

A12

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FP = 0
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| mm | 1:1 |

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| | | |
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| 4 PLACES | ± | |
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PRODUCT CUSTOMER DRAWING

| DOCUMENT NUMBER | DOC TYPE | DOC PART | REVISION |
|---|---|---|---|
| 1200878038 | PSD | 000 | A12 |

| THIRD ANGLE PROJECTION | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |
|---|---|---|---|---|---|
| | A3-SIZE | 120087 | SEE PART LIST | GENERAL MARKET | 3 OF 3 |

| DOCUMENT STATUS | P1 | RELEASE DATE | 2025/08/04 13:33:38 |
|---|---|---|---|

FORMAT: master_dwg-A3
REVISION: J1
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