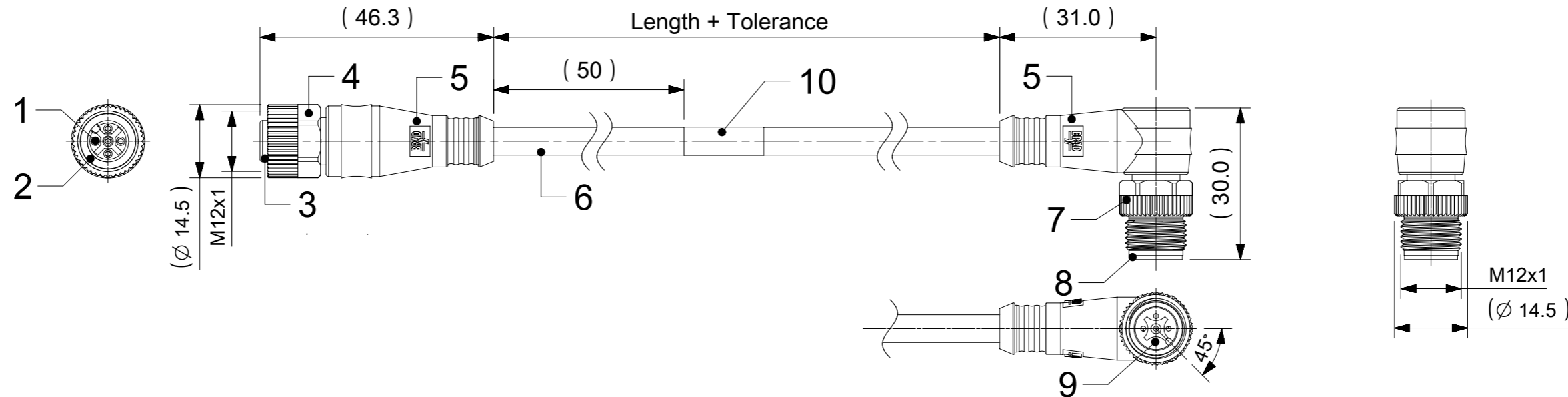
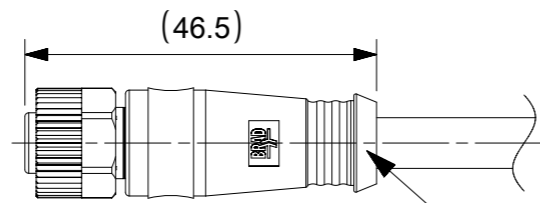


FEMALE PLUG M12 STRAIGHT TO MALE PLUG M12 90° ANGLED

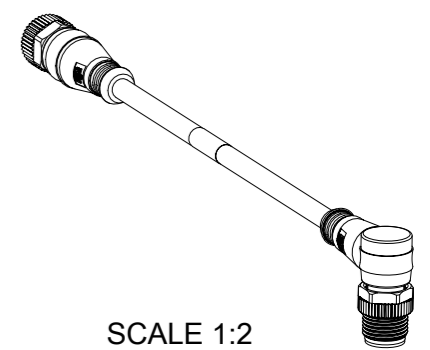
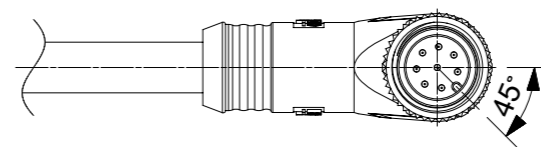
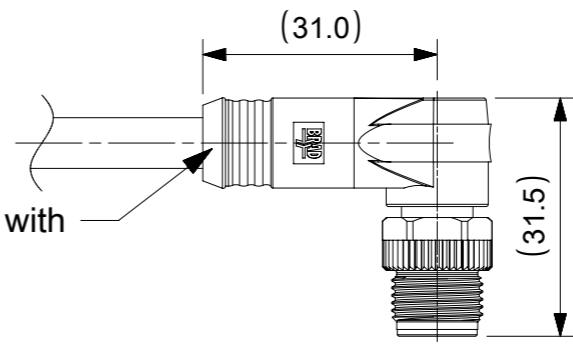


NOTES:

RATED VOLTAGE: 3, 4 contacts 250V
 5 contacts 60V
 8 contacts 30V
 RATED CURRENT: 3, 4, 5 contacts 4A
 8 contacts 2A
 PROTECTION CLASS: IP 67
 TEMPERATURE: -25°C / +85°C



Thicker Overmold for Cables with bigger Outer Diameter



CONTACTS POSITION FRONT VIEW:

| CABLE | 3 CONTACTS | 4 CONTACTS | 5 CONTACTS | 5 CONTACTS | 8 CONTACTS | | | | | |
|-------------|------------|--------------------|--------------------|------------|------------|-------|-----|--------------|-----|--------|
| | B30, B55 | B30, B33, B36, B55 | B30, B33, B36, B55 | B42 | B41, B49 | | | | | |
| FEMALE | | | | | | | | | | |
| MALE | | | | | | | | | | |
| CONNECTIONS | PIN | WIRE | PIN | WIRE | PIN | WIRE | PIN | WIRE | PIN | WIRE |
| | 1 | BROWN | 1 | BROWN | 1 | BROWN | 1 | BROWN | 1 | WHITE |
| | 2 | --- | 2 | WHITE | 2 | WHITE | 2 | WHITE | 2 | BROWN |
| | 3 | BLUE | 3 | BLUE | 3 | BLUE | 3 | BLUE | 3 | GREEN |
| | 4 | BLACK | 4 | BLACK | 4 | BLACK | 4 | BLACK | 4 | YELLOW |
| | 5 | --- | 5 | --- | 5 | GREY | 5 | GREEN/YELLOW | 5 | GREY |
| | | | | | | | | | 6 | PINK |
| | | | | | | | | | 7 | BLUE |
| | | | | | | | | 8 | RED | |

CODING REQUIRED TO IEC 61076-2-101

FOR OPTIONS SEE - NUMERICAL CODE - ON SHEET 2

| ITEM | QTY. | DESCRIPTION | MATERIAL | FINISH |
|------|---------------|--------------------------|-------------|----------------|
| 11 | SEE PN MATRIX | I/D CARRIER | PVC | TRANSPARENT |
| 10 | 1 | LABEL YELLOW | VINYL | --- |
| 9 | 8 | CONTACT M12 MALE | BRASS | SELECTIVE GOLD |
| | 3 / 4 / 5 | | COPPER | OVER NICKEL |
| 8 | 1 | INSERT MALE BLACK | TPU | --- |
| 7 | 1 | COUPLING NUT MALE SW13 | BRASS | NICKEL |
| 6 | - | CABLE | SEE SHEET 2 | --- |
| 5 | - | OVERMOULDING BLACK | TPU | --- |
| 4 | 1 | COUPLING NUT FEMALE SW13 | BRASS | NICKEL |
| 3 | 1 | INSERT FEMALE BLACK | TPU | --- |
| 2 | 1 | ORING RED | FPM | --- |
| | | | --- | --- |
| 1 | 8 | CONTACT M12 FEMALE | BRASS | SELECTIVE GOLD |
| | | | BRONZE | OVER NICKEL |

FUNCTIONAL SYMBOLS: THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

FUNCTIONAL SYMBOLS: DIMENSION UNITS: mm SCALE: 1:1

GENERAL TOLERANCES (UNLESS SPECIFIED): ANGULAR TOL: ± 1.0°

FUNCTIONAL SYMBOLS: 4 PLACES ±, 3 PLACES ±, 2 PLACES ± 0.05, 1 PLACE ± 0.3, 0 PLACES ± 0.5

DIVISIONAL SYMBOLS: DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

THIRD ANGLE PROJECTION: DRAWING: A3-SIZE, SERIES: 120066, MATERIAL NUMBER: SEE PART LIST, CUSTOMER: GENERAL MARKET, SHEET NUMBER: 1 OF 3

EC NO: 684766, DRWN: SSM, 2021/11/03, CHK'D: RSILLER, 2021/11/10, APPR: RSILLER, 2021/11/10

INITIAL REVISION: DRWN: JMARSZALEK, 2016/10/17, APPR: RSILLER, 2016/10/18

molex

CSE M12 XP AC FE RA WSOR MA RA XM DE

PRODUCT CUSTOMER DRAWING

DOCUMENT NUMBER: 1200668920, DOC TYPE: PSD, DOC PART: 000, REVISION: A2

ENGINEERING NO. - NUMERICAL CODE (Available parts see PART LIST table. Other parts available upon request).

OPTIONS

8 8 X 0 3 2 X X X X X X X X

88=M12x1
Double ended

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

Heads style:
032=Plug Female Straight
to Plug Male 90°

Cable type: See Table

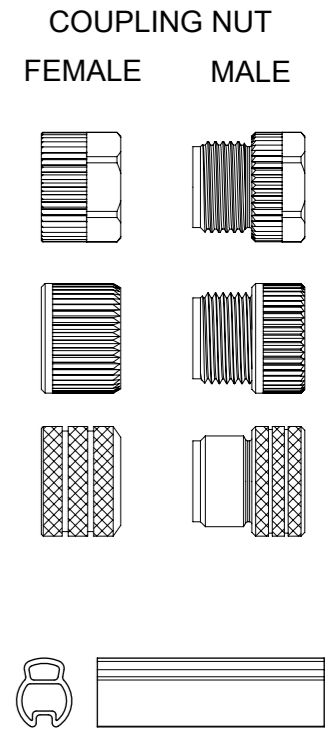
Units:
M=Meter
C=Centimeter

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

Overmold color:
Blank (Standard)=Black
A=Grey / G=Black / Y=Yellow / R=Red

Coupling Nut:
Blank (Standard)=Knurled/Hex Brass, Ni Plated
5=Knurled Derlin
7=Knurled Brass Ni Plated, Teflon Coated

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: TEMP. / BENDING RADIUS | DRAG CHAIN | CABLE PRODUCT SPECIFICATION | CABLE SPEC. DRAWING |
|------------|--------------|---------------------|--------------|--------------|-------------------------|--------------------------------|---------------------------------|------------------------------------|----------------------------------------|-----------------------------|---------------------|
| B30 | 3 / 4 / 5 | 0.34mm ² | TPU Black | UL 21215/758 | C22.2 I/II A/B 80°/600V | -40°C to +90°C >5xO.D. | -25°C to +80°C >7.5xO.D. | -5°C to +60°C >7.5xO.D. | up to 5 000 000 cycles at temp 20°C | 1552200001 | SD-120209-001 |
| B33 | 4 / 5 | 0.34mm ² | TPU Gray | | | | | | | | SD-120209-001 |
| B36 | 4 / 5 | 0.34mm ² | TPU Orange | | | | | | | | SD-120209-001 |
| B41 | 8 | 0.25mm ² | TPU Black | | | | | | | | SD-120209-006 |
| B42 | 5 | 0.34mm ² | TPU Black | | | | | | | | SD-120209-001 |
| B49 | 8 | 0.25mm ² | TPU Orange | | | | | | | | SD-120209-006 |
| B55 | 3 / 4 / 5 | 0.34mm ² | TPU Yellow | | | | | | | | n/a |

CABLE LENGTH TOLERANCES

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

| FUNCTIONAL SYMBOLS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | CURRENT REV DESC: | | molex | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------|------------------|----------------------------------|----------------------------|------------------------|-----|---------------------------------------|--|--|----------------|--------------------|--|----------------|----------|---|--------------------|----------|---|----------|--------|---------|-------|----------|-------|---------------------------------------------------------------|
| | <table border="1"> <tr> <th>FUNCTIONAL SYMBOLS</th> <th>DIMENSION UNITS</th> <th>SCALE</th> </tr> <tr> <td>$\nabla_A = 0$</td> <td>mm</td> <td>1:1</td> </tr> <tr> <td colspan="3">GENERAL TOLERANCES (UNLESS SPECIFIED)</td> </tr> <tr> <td>$\nabla_E = 0$</td> <td colspan="2">ANGULAR TOL ± 1.0°</td> </tr> <tr> <td>$\nabla_F = 0$</td> <td>4 PLACES</td> <td>±</td> </tr> <tr> <td rowspan="4">DIVISIONAL SYMBOLS</td> <td>3 PLACES</td> <td>±</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.05</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.3</td> </tr> <tr> <td>0 PLACES</td> <td>± 0.5</td> </tr> </table> | FUNCTIONAL SYMBOLS | DIMENSION UNITS | | SCALE | $\nabla_A = 0$ | mm | 1:1 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | $\nabla_E = 0$ | ANGULAR TOL ± 1.0° | | $\nabla_F = 0$ | 4 PLACES | ± | DIVISIONAL SYMBOLS | 3 PLACES | ± | 2 PLACES | ± 0.05 | 1 PLACE | ± 0.3 | 0 PLACES | ± 0.5 | EC NO: 684766 DRWN: SSM CHK'D: RSILLER APPR: RSILLER |
| FUNCTIONAL SYMBOLS | DIMENSION UNITS | SCALE | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\nabla_A = 0$ | mm | 1:1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\nabla_E = 0$ | ANGULAR TOL ± 1.0° | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $\nabla_F = 0$ | 4 PLACES | ± | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIVISIONAL SYMBOLS | 3 PLACES | ± | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 PLACES | ± 0.05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 PLACE | ± 0.3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 PLACES | ± 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | INITIAL REVISION: DRWN: JMARSZALEK APPR: RSILLER | 2016/10/17 2016/10/18 | DOCUMENT NUMBER 1200668920 | DOC TYPE PSD | DOC PART 000 | REVISION A2 | | | | | | | | | | | | | | | | | | | | | |
| DOCUMENT STATUS P1 | RELEASE DATE 2021/11/10 13:49:51 | THIRD ANGLE PROJECTION | DRAWING A3-SIZE | SERIES 120066 | MATERIAL NUMBER SEE PART LIST | CUSTOMER GENERAL MARKET | SHEET NUMBER 2 OF 3 | | | | | | | | | | | | | | | | | | | | |

PART LIST

| No. | Part No. | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 1 | 1200668918 | 883032B30M006 | 0.6m |
| 2 | 1200668919 | 883032B30M010 | 1m |
| 3 | 1200668920 | 883032B30M020 | 2m |
| 4 | 1200668921 | 883032B30M030 | 3m |
| 5 | 1200668922 | 883032B30M050 | 5m |
| 6 | 1200668923 | 883032B30M100 | 10m |
| 7 | 1200668924 | 884032B30M006 | 0.6m |
| 8 | 1200668925 | 884032B30M010 | 1m |
| 9 | 1200668926 | 884032B30M020 | 2m |
| 10 | 1200668927 | 884032B30M030 | 3m |
| 11 | 1200668928 | 884032B30M050 | 5m |
| 12 | 1200668929 | 884032B30M100 | 10m |
| 13 | 1200668930 | 885032B42M006 | 0.6m |
| 14 | 1200668931 | 885032B42M010 | 1m |
| 15 | 1200668932 | 885032B42M020 | 2m |
| 16 | 1200668933 | 885032B42M030 | 3m |
| 17 | 1200668934 | 885032B42M050 | 5m |
| 18 | 1200668935 | 885032B42M100 | 10m |
| 19 | 1200668936 | 888032B41M006 | 0.6m |
| 20 | 1200668937 | 888032B41M010 | 1m |
| 21 | 1200668938 | 888032B41M020 | 2m |
| 22 | 1200668939 | 888032B41M030 | 3m |
| 23 | 1200668940 | 888032B41M050 | 5m |
| 24 | 1200668941 | 888032B41M100 | 10m |
| 25 | 1200669003 | 885032B30M006 | 0.6m |
| 26 | 1200669004 | 885032B30M010 | 1m |
| 27 | 1200669005 | 885032B30M020 | 2m |
| 28 | 1200669006 | 885032B30M030 | 3m |
| 29 | 1200669007 | 885032B30M050 | 5m |
| 30 | 1200669008 | 885032B30M100 | 10m |
| 31 | 1200669075 | 884032B36M0057Y | 0.5m |
| 32 | 1200669076 | 884032B36M0107Y | 1m |
| 33 | 1200669077 | 884032B36M0157Y | 1.5m |
| 34 | 1200669078 | 884032B36M0207Y | 2m |
| 35 | 1200669079 | 884032B36M0307Y | 3m |

| No. | Part No. | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 36 | 1200669080 | 884032B36M0407Y | 4m |
| 37 | 1200669081 | 884032B36M0507Y | 5m |
| 38 | 1200669082 | 884032B36M0607Y | 6m |
| 39 | 1200669083 | 884032B36M0807Y | 8m |
| 40 | 1200669084 | 884032B36M1007Y | 10m |
| 41 | 1200669085 | 884032B36M1207Y | 12m |
| 42 | 1200669086 | 884032B36M1507Y | 15m |
| 43 | 1200669087 | 884032B36M2007Y | 20m |
| 44 | 1200669088 | 884032B36M2507Y | 25m |
| 45 | 1200669089 | 884032B36M3007Y | 30m |
| 46 | 1200669090 | 885032B36M0057Y | 0.5m |
| 47 | 1200669091 | 885032B36M0107Y | 1m |
| 48 | 1200669092 | 885032B36M0207Y | 2m |
| 49 | 1200669093 | 885032B36M0307Y | 3m |
| 50 | 1200669094 | 885032B36M0407Y | 4m |
| 51 | 1200669095 | 885032B36M0507Y | 5m |
| 52 | 1200669096 | 885032B36M0607Y | 6m |
| 53 | 1200669097 | 885032B36M0807Y | 8m |
| 54 | 1200669098 | 885032B36M1007Y | 10m |
| 55 | 1200669099 | 885032B36M1207Y | 12m |
| 56 | 1200669100 | 885032B36M1507Y | 15m |
| 57 | 1200669101 | 885032B36M1807Y | 18m |
| 58 | 1200669102 | 885032B36M2007Y | 20m |
| 59 | 1200669103 | 885032B36M2507Y | 25m |
| 60 | 1200669104 | 885032B36M3007Y | 30m |
| 61 | 1200669627 | 884032B33M010A | 1m |
| 62 | 1200669628 | 884032B33M020A | 2m |
| 63 | 1200669629 | 884032B33M030A | 3m |
| 64 | 1200669630 | 884032B33M050A | 5m |
| 65 | 1200669631 | 884032B33M100A | 10m |
| 66 | 1200669632 | 884032B33M150A | 15m |
| 67 | 1200669633 | 884032B33M200A | 20m |
| 68 | 1200669686 | 885032B33M010A | 10m |
| 69 | 1200669687 | 885032B33M020A | 20m |
| 70 | 1200669688 | 885032B33M030A | 30m |

| No. | Part No. | Engineering No. | Cable Length |
|-----|------------|-----------------|--------------|
| 71 | 1200669689 | 885032B33M050A | 5m |
| 72 | 1200669690 | 885032B33M100A | 10m |
| 73 | 1200669691 | 885032B33M150A | 15m |
| 74 | 1200669692 | 885032B33M200A | 20m |
| 75 | 1200669634 | 884032B30M150 | 15m |
| 76 | 1200669635 | 884032B30M200 | 20m |
| 77 | 1200669693 | 885032B30M150 | 15m |
| 78 | 1200669694 | 885032B30M200 | 20m |
| 79 | 1200669636 | 884032B55M010Y | 10m |
| 80 | 1200669637 | 884032B55M020Y | 2m |
| 81 | 1200669638 | 884032B55M030Y | 3m |
| 82 | 1200669639 | 884032B55M050Y | 5m |
| 83 | 1200669640 | 884032B55M100Y | 10m |
| 84 | 1200669641 | 884032B55M150Y | 15m |
| 85 | 1200669642 | 884032B55M200Y | 20m |
| 86 | 1200669695 | 885032B55M010Y | 1m |
| 87 | 1200669696 | 885032B55M020Y | 2m |
| 88 | 1200669697 | 885032B55M030Y | 3m |
| 89 | 1200669698 | 885032B55M050Y | 5m |
| 90 | 1200669699 | 885032B55M100Y | 10m |
| 91 | 1200669700 | 885032B55M150Y | 15m |
| 92 | 1200669701 | 885032B55M200Y | 20m |
| 93 | 1200669889 | 884032B33M005A | 0.5m |
| 94 | 1200669912 | 885032B33M005A | 0.5m |
| 95 | 1200669913 | 885032B33M300A | 30m |
| 96 | 1200669914 | 885032B33M400A | 40m |
| 97 | 1200669915 | 885032B33M500A | 50m |
| 98 | | | |
| 99 | | | |
| 100 | | | |
| 101 | | | |
| 102 | | | |
| 103 | | | |
| 104 | | | |
| 105 | | | |

| No. | Part No. | Engineering No. | Cable Length |
|-----|----------|-----------------|--------------|
| 106 | | | |
| 107 | | | |
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| 111 | | | |
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| 140 | | | |

| | | | | | |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| FUNCTIONAL SYMBOLS = 0 = 0 = 0 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION DIMENSION UNITS: mm SCALE: 1:1 | CURRENT REV DESC: EC NO: 684766 DRWN: SSM CHK'D: RSILLER APPR: RSILLER | CSE M12 XP AC FE RA WSOR MA RA XM DE | | |
| | GENERAL TOLERANCES (UNLESS SPECIFIED) ANGULAR TOL ± 1.0° 4 PLACES ± 3 PLACES ± 2 PLACES ± 0.05 1 PLACE ± 0.3 0 PLACES ± 0.5 | | | | |
| DIVISIONAL SYMBOLS | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS THIRD ANGLE PROJECTION | DRAWING: A3-SIZE SERIES: 120066 | DOCUMENT NUMBER: 1200668920 | DOC TYPE: PSD DOC PART: 000 REVISION: A2 | MATERIAL NUMBER: SEE PART LIST CUSTOMER: GENERAL MARKET SHEET NUMBER: 3 OF 3 |